USAID
FROM THE AMERICAN PEOPLE

LEADERSHIP DURING A PANDEMIC

What Your Municipality Can Do

PREPAREDNESS RESPONSE RECOVERY

Pan American Health Organization
Regional Office of the World Health Organization

CDC
Centers for Disease Control and Prevention

AI.COMM

STOP AI
AVIAN INFLUENZA

TANGO
International
Technical Assistance to N.G.O.'s

LINKS MEDIA
Creating a Culture of Learning

TOOLKIT

TABLE OF CONTENTS

ACKNOWLEDGMENTS

INTRODUCTION TO THE TOOLKIT

MATRIX: TOOLS FOR PREPAREDNESS, RESPONSE, AND RECOVERY

ANNOTATED INDEX OF TOOLS

INTRODUCTION

Tool 1: Priority Actions to Lead Your Municipality through a Pandemic

Tool 2: Presentation on the Threat of a Severe Influenza Pandemic (PowerPoint Slides and Presenter Guide)

HEALTH

Tool 3: Pandemic Health Impact Projection Tool (User Guide and Excel Workbook)

Tool 4: Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality

Tool 5: Triage: Prioritizing Care to Reduce Deaths

Tool 6: Training for Community Health Responders

FOOD SECURITY AND LIVELIHOODS

Tool 7: Food Security in a Pandemic

Tool 8: Classification of Food Security Risk Locations (User Guide and Excel Workbook)

Tool 9: Identification of People Most at Risk of Food Insecurity

Tool 10: Household Food Security Preparedness

Tool 11: Distribution of Emergency Food During an Influenza Pandemic

CRISIS AND EMERGENCY RISK COMMUNICATIONS

Tool 12: Fundamentals of Communication During Crises and Emergencies

Tool 13: Communications Plan Implementation for a Severe Pandemic

Tool 14: News Media Communication

DISASTER MANAGEMENT

Tool 15: Disaster Management in a Pandemic

Tool 16: Maintenance of Essential Services

Tool 17: Volunteer Coordination

Tool 18: Management of Dead Bodies

Tool 19: Recovery and Resilience

GLOSSARY

RESOURCES

TOOLKIT

ACKNOWLEDGMENTS

USAID would like to thank the following authors, technical experts, other contributors, and their respective organizations for making this toolkit possible.

AUTHORS

HEALTH

Lisa V. Stone
Principal Technical Advisor for Pandemic Preparedness
Management Sciences for Health, STOP AI

Dan Baker
Senior Technical Officer, Management Sciences for Health
LAC Manager, STOP AI

Robert Lee
Manager, Emergency Operations Center
Pan American Health Organization

Fred Hartman
Global Technical Lead for Communicable Diseases and Epidemic Preparedness
Management Sciences for Health, STOP AI

Julio Ortega
Regional Coordinator
Management Sciences for Health, STOP AI

Carlos Sáenz
National Coordinator
Management Sciences for Health, STOP AI

María Pia Sanchez
Principal Technical Advisor
Management Sciences for Health, STOP AI

Naz Todini
Project Support Officer
Management Sciences for Health, STOP AI

FOOD SECURITY AND LIVELIHOOD

Tim Frankenberger
President
TANGO International, Inc.

Laurie Starr
Principal Research Associate for Pandemic Preparedness
TANGO International, Inc.

James Becht
Senior Analyst for Food and Livelihood Security
TANGO International, Inc.

Marie Cadrin
Technical Consultant for Household Security
TANGO International, Inc.

Kathy McCaston
Technical Consultant for Community Recovery
TANGO International, Inc.

Tom Spangler
Research Associate for Household Food Security
TANGO International, Inc.

CRISIS AND EMERGENCY RISK COMMUNICATIONS

Marisabel Sánchez
President and Chief Executive Officer
Links Media

TECHNICAL REVIEWERS

Iván Allende
Director of Surveillance
Ministry of Health, Paraguay

Adelina Barrera
Project Coordinator
FamiSalud/USAID
Federación Red NicaSalud

Judy Canahuati
MCHN & HIV Advisor
Food for Peace

Heather Danton
Senior Director
Integrated Livelihoods Programs
Save the Children

Daniel C. Ehlman
Research Scientist
Emerging Infections Program
US Naval Medical Research Center
Detachment (NMRCD), Lima, Peru

Margie Ferris-Morris
Nutrition and Food Security Consultant

Dawn French
Director
Saint Lucia National Emergency Management
Organisation (NEMO)

Avery Q. J. Hinds
Medical Epidemiologist
National Surveillance Unit, Ministry of Health
Trinidad and Tobago

David Hull
Food Security Advisor
Latin America and Caribbean Bureau's
Office of Regional Sustainable
Development (LAC/RSD)
USAID

Aynur Kadihasanoglu
Coordinator
Food and Livelihoods Security Working Group
Human Pandemic Preparedness (H2P)
Initiative
International Federation of Red Cross
and Red Crescent Societies Americas

Brian U. Kim
Command Veterinarian
HQ NORAD-USNORTHCOM/SG
United States Army

Andrés "Willy" Lescano
Director, Public Health Training
U.S. Naval Medical Research Center
Detachment (NMRCD), Lima, Peru

Nancy Mock
Interim Executive Director, Newcomb College
Center for Research on Women
Associate Professor of International Health
and International Development
Tulane University

Heather Papowitz
Medical Officer
Health Action in Crises
World Health Organization

Panu Saaristo
Zone Coordinator
Health in Emergencies
International Federation of Red Cross
and Red Crescent Societies
Americas

Enrique Samudio Núñez
National Officer
Pandemic Influenza Contingency (PIC),
UNSIC; and
Office for the Coordination of
Humanitarian Affairs
Regional Office for Latin America and the
Caribbean (OCHA ROLAC)

Carlos A. Sanchez
Medical Epidemiologist
Emerging Infections Program
US Naval Medical Research Center
Detachment (NMRCD), Lima, Peru

Cesar A. Sandoval
Agricultural Scientist
United States Embassy APHIS/USDA/IS
Panama City, Panama

Eric S. Starbuck
Public Health Advisor
Humanitarian Pandemic Preparedness (H2P)
Initiative, CORE Group
Health Advisor, Save the Children

Timothy Stevenson
Deputy Director
Veterinary Corps
Department of Defense Veterinary
Service Activity

Ann Swindale
Project Director
Food Security and Nutrition Project (FANTA)
Academy for Educational Development

Marci Van-Dyke
Technical Advisor
Pandemic Planning/Humanitarian Response
Avian and Pandemic Influenza Response Unit
USAID Global Health Bureau

TOOLKIT

INTRODUCTION TO THE TOOLKIT

IMAGINE...

You are the mayor of a municipality that started seeing influenza pandemic cases a few weeks ago. Each day it has gotten worse, and now the local health facility is completely overrun with patients. People who are sneezing and coughing are waiting for hours to be seen, while patients with other diseases are not only worried that they are being exposed to the illness, but also that they are not getting the care they need.

The Ministry of Commerce reports that due to the impact of the pandemic in other parts of the world, imports have declined by 20%. Crowds of people are out in the streets, buying up food and water and other essentials. A supermarket owner has posted security outside the store and locked the door with a chain. People are now very worried about how to survive the pandemic—and if they survive, running out of food and money.

Attendance in church has increased dramatically. Some fights have broken out, and there is a palpable sense of fear in the air. People are packing up to flee the area, and those with the transportation and other resources to leave have boarded up their homes and businesses and escaped to the countryside in hopes of isolating themselves from the pandemic.

The health director is recommending measures to limit the spread of the disease. She wants to close schools, some local businesses, and churches, and limit public gatherings and public transport in order to prevent deaths. This decision will affect the livelihoods of many in the municipality. Your police chief reports many officers are out sick, despite requests to provide extra security for health facilities, pharmacies, grocery stores, and gasoline stations. He is asking for help from the uniformed services. As if you didn't have enough to worry about, the local media is outside your door and is demanding answers.

What would you do?

It should be clear from this example that the impact of a severe pandemic goes far beyond an impact on health. It will take the effort of all sectors, working together in a coordinated way, to prepare, respond, and recover from this disaster. This toolkit has been designed to assist mayors, their municipal leadership teams, and other local leaders to do just that.

A pandemic influenza virus is strictly a human disease. People will not catch a pandemic virus from birds, swine, or other animals.

WHAT IS AN INFLUENZA PANDEMIC?

An influenza pandemic is an epidemic of influenza that occurs globally. Pandemics occur when a new influenza virus emerges and spreads as easily as seasonal flu does, through coughing and sneezing. A pandemic influenza virus causes more serious disease than the normal flu because it is a new virus against which humans have no immunity.

Severe influenza pandemics are rare but recurring events. In the previous century, three severe pandemics occurred: Spanish influenza in 1918, Asian influenza in 1957, and Hong Kong influenza in 1968. In 1918, the pandemic killed an estimated 40 to 50 million people in the world; the other pandemics were milder, with an estimated two million deaths in 1957, and one million in 1968.

On June 11, 2009, the World Health Organization (WHO) raised the level of pandemic alert from Phase 5 to Phase 6—describing the H1N1 influenza virus as a full-blown pandemic. While the impact of this virus has been relatively mild to date, with low mortality rates and limited economic impact, there is concern that the virus may return with greater virulence in the near future.

A note about severity

Once a pandemic starts, it cannot be kept out of a community because people spread an illness before they know they have it. Many deaths will be due to illnesses not related to the pandemic and from starvation or acts of violence. Many of these deaths are preventable if you work ahead of time to educate yourself and your community.

The term influenza pandemic does not, in and of itself, speak to how severe the effect will be. It primarily refers to the geographic reach, and not severity, of an illness. Pandemics can range from mild to severe, with many factors determining the severity. One factor is the illness itself—what proportion of people that get the illness die from it. However, there are a number of other factors that also determine how severe a pandemic will be, some of which also explain variability in severity from one area to another. For example, the quality of health services influences severity. According to WHO, "the same virus that causes only mild symptoms in countries with strong health systems can be devastating in other countries where health systems are weak; supplies of medicines, including antibiotics, are limited or frequently interrupted; and hospitals are crowded, poorly equipped, and under-staffed."[1]

HOW WILL A SEVERE INFLUENZA PANDEMIC AFFECT YOUR MUNICIPALITY?

Some say that all disasters are local, and this is especially true in a pandemic because national governments, aid agencies, and neighboring municipalities will likely be overwhelmed by the pandemic and unable to provide you with help. *During a pandemic, each municipality will need to be prepared to stand on its own.*

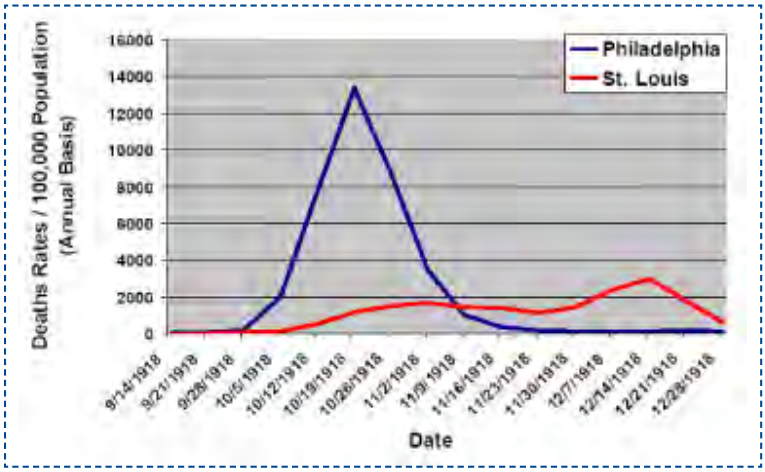
Unlike most disasters, which tend to happen as a single event that ends within a day or so (such as a hurricane or an earthquake), a pandemic may occur in a series of waves, each one lasting approximately 6 to 12 weeks. The very worst week of the first wave is likely to occur around the fourth or fifth week after the pandemic starts in your area.

It is difficult to predict the impact of each subsequent wave. However, because of changes in the virus itself or the additional strain that each successive wave places on a municipality's resources, each wave has the potential to be more lethal than the previous one.

[1] World Health Organization. May, 2009. *Assessing the severity of an influenza pandemic*. http://www.who.int/wer/2009/wer8422.pdf.

Below is a graph of death rates in two U.S. cities during the 1918 pandemic. Worldwide, this pandemic resulted in an estimated 50 million additional deaths compared to seasonal influenza. Note that St. Louis experienced considerably fewer deaths than Philadelphia. The primary reason for the different death rates in these two cities was their response to the pandemic. Which city will your municipality most resemble in a pandemic? That is your challenge.

1918 DEATH RATES: PHILADELPHIA Vs. ST. LOUIS



Collins SD, Frost WH, Gover M, Sydenstricker: *Mortality from influenza and pneumonia in the 50 largest cities in the United States.* First Edition Washington: U.S. Government Printing Office. 1930.

In many respects, how a municipality prepares for, responds to, and recovers from a pandemic or any other large-scale disaster such as an earthquake or hurricane is very similar; however, the box below demonstrates why a pandemic requires special attention.

THE DIFFERENCE BETWEEN A PANDEMIC AND OTHER DISASTERS

PANDEMIC	OTHER QUICK-ONSET DISASTERS
The shock lasts 6 to 12 weeks.	The actual event is of short duration.
It takes place WORLDWIDE.	It usually takes place in a specific area of the country or in a specific area of the world.
Help may not be available from others.	Neighbors, aid agencies, and other countries are available to help.
It involves a contagious disease.	It is usually a natural or man-made disaster, such as a hurricane, earthquake, or bombing.
To reduce the transmission of the disease, people SHOULD NOT be allowed to gather or to seek public shelter.	A municipality can provide emergency public shelter and allow people to gather.

THE ROLE YOU WILL PLAY IN A PANDEMIC

A successful pandemic response requires a leader—or leadership team—trusted by the people of the municipality, who knows how to minimize deaths in this complex disaster, and has the authority to do it.

As the mayor or municipal leader you are in a position to determine what the impact will be on your municipality.

After the next pandemic, we will look back and understand which municipalities were affected the most and which suffered least. Most likely, the differences between the most and least affected municipalities will be related to what each did to prepare before the pandemic, how they responded during the pandemic, and how they helped their municipalities get back to normal following a severe pandemic. As was the case in St. Louis and Philadelphia in 1918, once a severe pandemic starts, the difference in impact at the local level will largely be a direct result of local preparedness and response, and NOT related to actions taken, or not taken, by the national government.

You may well be one of the heroes of the next pandemic, having helped your municipality to emerge with fewer deaths and with less economic impact, and to avoid social collapse. Protecting the people who live within your municipality will be primarily up to you and will require strong leadership during a catastrophic time.

TOOLKIT BASICS

PREPAREDNESS = Tools to be used pre-pandemic

RESPONSE = Tools to be used during a pandemic

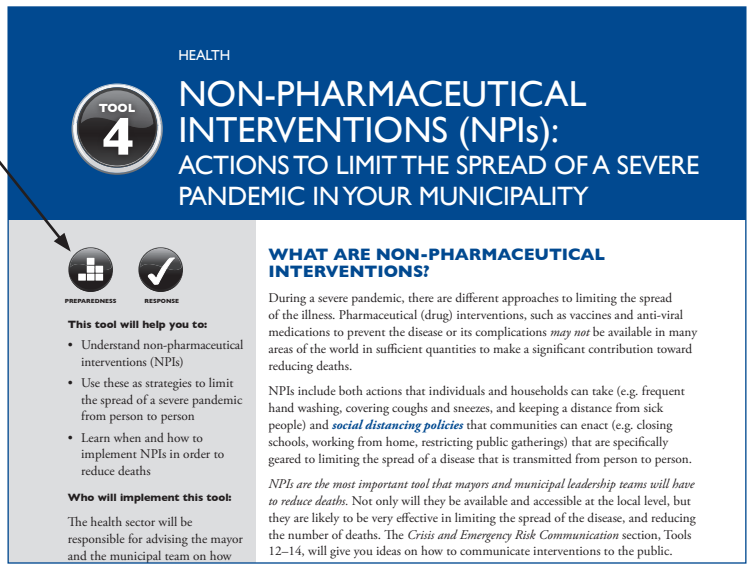
RECOVERY = Tools to be used post-pandemic

The tools that make up this toolkit were developed by a number of experts and organizations working at the forefront of disaster management, emergency preparedness, and pandemic influenza planning. Some of these experts and organizations have helped nations prepare, respond to, and recover from disasters. Others have worked directly in the field with municipalities like those for which this toolkit has been developed.

This toolkit consists of 19 tools or modules that provide guidance for pandemic preparedness and response. While the tools contain guidance that pertains to numerous sectors in your municipality, they are categorized into four key areas: Health, Food Security and Livelihoods, Crisis and Emergency Risk Communications, and Disaster Management.

Several tools specifically offer guidance for situations that you may face during a severe pandemic, but many are also useful in a mild or moderate pandemic.

Some of the tools are meant to be used during a specific stage of a pandemic and some will be used in multiple stages. For example, a tool may help you prepare in pre- and early pandemic stages, it may help you respond during the pandemic, and/or it may help you facilitate the recovery of your community after the pandemic is over. To help you determine at a glance the stage(s) of a pandemic for which each tool can be used, there are symbols that look like this on the first page of each tool. Directly below these symbols are brief descriptions of what the tool will help you to accomplish as well as who might use the tool.


HEALTH

TOOL 4

NON-PHARMACEUTICAL INTERVENTIONS (NPIs):
ACTIONS TO LIMIT THE SPREAD OF A SEVERE PANDEMIC IN YOUR MUNICIPALITY

PREPAREDNESS RESPONSE

This tool will help you to:

- Understand non-pharmaceutical interventions (NPIs)
- Use these as strategies to limit the spread of a severe pandemic from person to person
- Learn when and how to implement NPIs in order to reduce deaths

Who will implement this tool:

The health sector will be responsible for advising the mayor and the municipal team on how

WHAT ARE NON-PHARMACEUTICAL INTERVENTIONS?

During a severe pandemic, there are different approaches to limiting the spread of the illness. Pharmaceutical (drug) interventions, such as vaccines and anti-viral medications to prevent the disease or its complications *may not* be available in many areas of the world in sufficient quantities to make a significant contribution toward reducing deaths.

NPIs include both actions that individuals and households can take (e.g. frequent hand washing, covering coughs and sneezes, and keeping a distance from sick people) and ***social distancing policies*** that communities can enact (e.g. closing schools, working from home, restricting public gatherings) that are specifically geared to limiting the spread of a disease that is transmitted from person to person.

NPIs are the most important tool that mayors and municipal leadership teams will have to reduce deaths. Not only will they be available and accessible at the local level, but they are likely to be very effective in limiting the spread of the disease, and reducing the number of deaths. The *Crisis and Emergency Risk Communication* section, Tools 12–14, will give you ideas on how to communicate interventions to the public.

In addition to these identifying symbols, the

matrix at the end of this introduction offers an overview of key tools you may want to reference quickly during a pandemic. Under each of the main actions or interventions listed across the top of the matrix, one or more of the tools you should first look to for guidance in that area is checked. This is not a comprehensive index of all the relevant information contained in the tools, but may help you find the information you need more efficiently.

Some of the tools will be used individually; others complement each other. As you read, you will come across references to other tools that offer additional guidance for decisionmaking or implementation of pandemic preparedness and response activities.

At times, you will come across words in blue type. These words may not be familiar to everyone who reads the tools. Their definitions are included in the glossary at the end of the toolkit.

WHO WILL IMPLEMENT THESE TOOLS?

Each tool has a box on the left side of the page that tells you who will be most likely to use this tool. In most tools you will see the term ***municipal leadership team*** in this box. We use this term to refer to the personnel responsible for the regular, daily functioning of a municipality. Typically, this team will be made up of the mayor or other designated municipal leader, and his or her immediate support staff. If you already have a team in place that goes by a different title, perhaps disaster management team, rapid response team, or emergency response team, there is no reason to form a new team—use what works!

In smaller municipalities, the leadership team may respond directly to the pandemic. In larger cities, the team may provide overall leadership while other groups implement the actual response. This decision should be made at the municipal level, as it will depend on the municipality and its resources. To help you determine who might help the municipal leadership team implement the various activities, tools often list relevant sectors, staff members, and community organizations.

WHERE TO BEGIN

As a municipal leader, be sure that you are most familiar with Tool 1, *Priority Actions to Lead Your Municipality through a Pandemic*. You should also familiarize yourself with Tool 2, *Presentation on the Threat of Severe Influenza Pandemic*; Tool 7, *Food Security in a Pandemic*; Tool 15, *Disaster Management in a Pandemic*; Tool 16, *Maintenance of Essential Services*, and Tool 12, *Fundamentals of Communication During Crises and Emergencies*. But in most cases, the tools will be used by your municipal leadership team. Your role, then, will be to delegate responsibility for these actions as appropriate.

In addition to the tools that will help you achieve pandemic preparedness and response goals, the back of this toolkit contains resources and background information to help you gain insight into the various challenges a pandemic will present.

TOOLKIT

MATRIX: TOOLS FOR PREPAREDNESS, RESPONSE, AND RECOVERY

TOOL NUMBER AND NAME	PREPAREDNESS			RESPONSE						RECOVERY
	Organize Disaster Management Team	Be Informed	Assess Resources	Update Info	Implement Plan	Prevent Panic	Limit Spread	Food and Nutrition	Triage	Resume Life and Commerce
Tool 1: Priority Actions to Lead Your Municipality through a Pandemic	X	X	X	X	X	X	X	X	X	X
Tool 2: Presentation on the Threat of a Severe Influenza Pandemic	X	X								
Tool 3: Pandemic Health Impact Projection Tool		X	X	X					X	
Tool 4: Non-Pharmaceutical Interventions: Actions to Limit the Spread			X				X			
Tool 5: Triage: Prioritizing Care to Reduce Deaths			X						X	
Tool 6: Training for Community Health Responders			X				X		X	
Tool 7: Food Security in a Pandemic	X	X						X		
Tool 8: Classification of Food Security Risk Locations		X								
Tool 9: Identification of People Most at Risk of Food Insecurity		X		X						
Tool 10: Household Food Security Preparedness								X		
Tool 11: Distribution of Emergency Food During an Influenza Pandemic			X	X				X		
Tool 12: Fundamentals of Communication During Crises and Emergencies		X				X				X
Tool 13: Communications Plan Implementation for a Severe Pandemic			X			X				
Tool 14: News Media Communication		X				X	X		X	X
Tool 15: Disaster Management in a Pandemic	X		X		X					
Tool 16: Maintenance of Essential Services	X		X		X				X	
Tool 17: Volunteer Coordination			X		X					
Tool 18: Management of Dead Bodies					X					
Tool 19: Recovery and Resilience										X

TOOLKIT

ANNOTATED INDEX OF TOOLS

INTRODUCTION

Tool 1 Priority Actions to Lead Your Municipality through a Pandemic
This tool sets the stage for what could happen during a severe influenza pandemic and gives an overview of how you will prepare and respond. There are three primary stages to know: preparedness, response, and recovery. All the actions to be considered are discussed in broad terms.

Tool 2 Presentation on the Threat of a Severe Influenza Pandemic
This tool is especially useful for those who don't yet know much about pandemic influenza or its potentially wide-ranging effects on communities. It is a learning guide prepared using PowerPoint® presentation software intended for training the people who will be responsible for planning and response, so that they know what to expect from a pandemic scenario.

HEALTH

Tool 3 Pandemic Health Impact Projection Tool
This step-by-step electronic tool will help you use your municipality's healthcare resources wisely to achieve the best possible outcome—the most lives saved—during a pandemic. It uses Microsoft Excel® spreadsheet software. By entering three characteristics of your municipality, you can use the tool to generate estimates of the number of cases and the number of deaths you can expect during each week of the outbreak. The tool categorizes the expected cases into the four different levels of care that the people of your municipality are expected to need.

Tool 4 Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality
This tool explains the approaches available to limit the spread of the illness and tells you how and when to implement them. Pharmaceutical interventions involve vaccines and antiviral medications to prevent and treat the disease or its complications. Because it will not be possible to manufacture vaccines for the initial pandemic wave, and certain barriers will prevent the use of antiviral medications, most countries will need to protect their populations without either of these interventions. This tool describes non-pharmaceutical interventions, such as social distancing, that municipalities can use to try to limit the spread of the disease.

Tool 5 **Triage: Prioritizing Care to Reduce Deaths**

This tool explains the importance of triage during a pandemic and how it differs from triage as commonly practiced under normal conditions. A pandemic or other catastrophic disaster will result in large numbers of sick or injured people who will overwhelm your community's health resources. Municipal leaders will be charged with developing policies and standards for the care of the sick and dying at a time when resources may not be sufficient to provide care for all those who need help. Using limited resources ineffectively could result in the preventable loss of yet more lives. But by planning in advance how to prioritize the use of scarce health resources during a pandemic, you can help ensure that care is provided to those who need it and can benefit from it most.

Tool 6 **Training for Community Health Responders (Sessions I–III)**

The Humanitarian Pandemic Preparedness Initiative (also known as "H2P") developed a model step-by-step training program for community health responders that we have adapted for this toolkit. Community health responders are those people in your community who will receive training about how to slow the spread of the illness and who, in turn, will offer guidance and care in your municipality during the crisis. This tool provides a curriculum with which to educate community health responders and other volunteers about the pandemic, the effective use of four influenza-fighting behaviors, and how people—including the community health responders themselves—can avoid getting sick.

FOOD SECURITY AND LIVELIHOODS

Tool 7 **Food Security in a Pandemic**

When there is "food security" in your municipality, it means that everyone in your community can grow, buy, or trade enough of the nutritious food they need to have a healthy and active life. This tool describes how a pandemic will impact the food security of your community and how early planning before a pandemic can help a community prevent many of its negative impacts on food security. It will help leaders decide which type of response specific to food security may be most appropriate to survive a wave of the pandemic.

Tool 8 **Classification of Food Security Risk Locations**

This tool uses Microsoft Excel® spreadsheet software to help response leaders assess the risk of food insecurity in the municipality as a result of a pandemic. It is important to remember that all areas experience some level of risk. The risk workbook provides a measure of the relative risk in one local region (municipality, village, or neighborhood) in relation to another area in the same region. Risk level is classified into three categories: high, medium, and low. The ranking is based on the likelihood that households will suffer from hunger and lost income.

Tool 9 **Identification of People Most at Risk of Food Insecurity**

During a severe pandemic or other disaster, it will be important to identify the people within your population who will be most at risk. This step-by-step assessment tool will help you determine who is most affected by poverty and hunger in your municipality, and who may suffer most from the impact of a pandemic in terms of their ability to put food on the table.

Tool 10 Household Food Security Preparedness

During a severe pandemic, families are likely to suffer either because food and basic goods are not available or because they are not physically or financially accessible. This tool will help volunteers and community representatives raise awareness at the family level about the necessity of disaster preparedness in the area of food and livelihood security. It provides four key actions that can be presented at community gatherings prior to the onset of a pandemic to increase everyone's ability to cope.

Tool 11 Distribution of Emergency Food During a Pandemic

During a severe pandemic, people who do not have access to food or cannot afford enough of it will need immediate assistance. This tool describes the logistics of stockpiling food in your municipality and explains how to distribute food safely during a pandemic.

CRISIS AND EMERGENCY RISK COMMUNICATIONS

Tool 12 Fundamentals of Communication During Crises and Emergencies

Providing reliable, trustworthy information is crucial for the success of all the activities led by municipalities and civic organizations during a pandemic. This tool will guide you through the fundamental concepts and principles of effective communications for public officials.

Tool 13 Communications Plan Implementation for a Severe Pandemic

Sound communications before, during, and following emergency situations allow for effective and timely responses to crises and disasters. This tool provides you with the practical resources you will need to organize an effective communications response in your municipality.

Tool 14 News Media Communication

Collaborative relationships with the media are essential to the timely and effective dissemination of information to the public during emergencies. This tool provides tip sheets and resources for establishing and maintaining these relationships.

DISASTER MANAGEMENT

Tool 15 Disaster Management in a Pandemic

While general disaster response capabilities will be needed during the pandemic, the complexities of the pandemic require a unique response. This tool will assist you in planning and implementing the coordinated multisector response that will be needed, and will help you to lead an effective response in order to reduce deaths during the pandemic.

Tool 16 Maintenance of Essential Services

During the pandemic, workforce shortages and supply chain disruptions—along with social distancing—will require some businesses to close or reduce their operations. Further, municipal government officials may need to rethink how they provide essential goods and services. This tool takes you through each of the steps necessary for creating a plan to ensure the continuity, to the extent possible, of normal municipal activities in each sector.

Tool 17 Volunteer Coordination

During a severe pandemic, all of the sectors in your municipality will probably be overwhelmed and unable to respond to the needs of your population. Volunteer neighborhood and community organizations can help fill this gap. This tool helps response leaders and planners take an inventory of available volunteer services and efforts, and organize these services and volunteers in a manner that eases the impact of the pandemic on the community as a whole.

Tool 18 Management of Dead Bodies

In the event of a pandemic, municipalities can expect an increase in the number of deaths in their communities. Dead bodies, including those of influenza victims, are generally not contagious. Nevertheless, municipalities must oversee the logistics of recovery and identification while providing support to families. This tool will help prepare you to address this difficult task with a logistics overview and specific recommendations.

Tool 19 Recovery and Resilience

Following a severe pandemic, municipal leaders must begin to focus on getting life and commerce back to normal as soon as possible. People may be filled with fear, so reestablishing a sense of security will be a key objective. This tool helps local leaders link pandemic relief to pandemic recovery by identifying the people in the municipality that have suffered the most. It helps make sure that short-term income and basic necessities are available for these people, while building future resilience to disasters by implementing longer-term work that addresses the underlying causes of food shortages and poverty.

ALL SECTORS

PRIORITY ACTIONS TO LEAD YOUR MUNICIPALITY THROUGH A PANDEMIC

PREPAREDNESS RESPONSE RECOVERY

This tool will help you to:

- Identify key objectives to influenza pandemic preparedness, response, and recovery
- Use this toolkit to reduce deaths and to manage at a municipal level

Who will implement this tool:

- The mayor
- Members of the ***municipal leadership team***

OVERVIEW

In this tool are a set of key objectives that correspond to the preparedness, response, and recovery stages of a pandemic. These objectives and the actions taken to achieve them will lessen the impact of a severe pandemic on your municipality. Whenever appropriate, we will refer you to other tools in the toolkit that will help you achieve these goals, and, ultimately, protect and provide for your municipality.

There are several aspects of pandemic planning that should be part of all preparedness, response, and recovery actions. These general principles apply to the use of all the tools in this toolkit.

MULTISECTOR IMPACT REQUIRES MULTISECTOR PREPAREDNESS, RESPONSE, AND RECOVERY

While the direct result of the disease is illness and death, a series of cascading indirect impacts will result in significant challenges to all sectors of society. At the peak of the pandemic, up to 40% of all workers will be absent from work, due to illness, caring for another, child care responsibilities, or fear of going to work. Imagine trying to get your job done on a day when almost half of your employees are out of work! Then, imagine what will happen with municipal services such as garbage collection and road repair, banking and other commercial enterprises, and all goods that rely on production, transport, delivery, and repairs for resupply. Once essential goods and services are in short supply, municipal leaders will need to determine how to allocate them.

INTEGRATION WITH NATIONAL EMERGENCY PLANS

Most countries have national level pandemic plans in place, while very few have municipal level plans. This toolkit is designed to provide you with the guidance and resources to build a multisector municipal plan. *It is very important that municipal plans reflect national level planning and that all municipal response activities are consistent with the national strategic objectives, laws, and policies.* If you do not already have a copy of your country's National Pandemic Response Plan, contact your Ministry of Health or look for it on their website. Information is also available from the Pan American Health Organization at www.paho.org. Your country may also have an Emergency Communication Plan that you should follow.

National, district, and municipal level plans are likely to exist for general disaster response. Municipal level disaster committees and plans are a foundation on which you can build your pandemic response plan, and a disaster committee may well become the multisector municipal leadership team that you need for your pandemic response.

LEGAL FRAMEWORK

Any response you lead to ensure the health and safety of your community must be in line with both your country's and your municipality's existing laws and regulations, which have been enacted to prevent diseases and to provide a response to those that threaten the well-being of the population. Such existing laws, policies, programs, and appropriated funds must be considered as you plan and implement a municipal level response during a severe influenza pandemic. Having a keen understanding of this legal framework is pivotal to ensuring an efficient response during crises and emergencies. Municipal preparedness includes identifying and addressing any gaps in this legal framework for response.

EFFECTIVE COMMUNICATION

The recent outbreaks of A/H1N1 underscore the need for public officials to get involved in communicating messages that inform the public, stakeholders, and the media without frightening, and to educate without provoking alarm or indifference. Effective communication requires leadership and discipline. Listening and conversing frequently with your constituents (including your vulnerable populations, businesses, volunteers, religious leaders, and public sector personnel) will help you to understand their needs. Their perceptions are key to your implementing a successful response. Well-planned and coordinated communication during crises and emergencies will help you implement needed interventions to protect people's health, food security, and livelihoods. Also of critical importance is understanding how information is managed and shared at all levels of government, within and across agencies, as well as within sectors. An official flow-of-information map should already exist to ensure that the appropriate information is communicated to alert the population of potential hazards and risks that affect their welfare.

RESPONSE IN PROPORTION TO THE LOCAL SITUATION

During an influenza pandemic, some parts of the world will be affected earlier than others, and some will have higher death rates from the illness. Some people will have a very mild reaction to the disease and others will die quickly from the same disease. Variability and change over time are part of any pandemic. The World Health Organization and national governments will be constantly monitoring the situation. Some responses will be determined at the national level, but many will be determined at the local level. Therefore, municipal governments must assess the local situation continually and respond accordingly.

Some of the actions that can reduce deaths in a pandemic carry with them negative consequences for the population. For example, cancelling events and closing schools and businesses to limit the spread of the illness can result in large economic losses and should be reserved for circumstances in which the benefit of using them is greater than the harm they may cause. You need to be prepared to customize your response to the actual situation you are dealing with, balancing the response activities with the impact you experience.

PREPAREDNESS: WHAT YOU CAN DO BEFORE THE PANDEMIC

The tools cited and described throughout this section will be especially helpful to you as you prepare ahead of time to prevent excess harm and to respond once the pandemic strikes.

The information in these tools can also help you prepare, respond to, and recover from disasters of all kinds, not just a pandemic. By getting started now, you can be in a better position to reduce the harm that can be caused by any disaster.

BE INFORMED OF THE POTENTIAL IMPACT

Make sure you have a clear understanding of what a pandemic is and of how it will affect your municipality.

Use Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic*, and Tool 7, *Food Security in a Pandemic*, to train all of the members of your municipal leadership team and key responders. Use Tool 3, *Pandemic Health Impact Projection Tool*, and its *User Guide* to estimate the number of influenza cases and deaths that may occur in your municipality.

Be informed. Review your municipal and national plans. Get to know the roles and responsibilities of key government authorities at the national level. Knowing ahead of time how your country will respond at a national level during a pandemic will help you better prepare your municipality. Most importantly, you will be able to determine what help your national government might be able to provide you and the role it will play in ensuring that your municipality has access to the resources it will need. You should also review any existing emergency communications plans and be prepared to disseminate information to your community in keeping with the guidelines they provide.

ORGANIZE A DISASTER RESPONSE TEAM AND INITIATE PLANNING

Use Tool 15, *Disaster Management in a Pandemic* to help you organize a multisector disaster response team. Your pandemic response team should include, at a minimum, executive leadership (that is, the mayor or someone designated by the mayor), members of any pre-existing disaster committee, and others to include representatives from each of the following sectors:

- Public safety and security
- Public health and medical services
- Public works
- Food security
- Business and commerce
- Finance
- Logistics and transportation
- Communications spokesperson(s)
- Telecommunications and IT

The team's first task should be to review your country's national pandemic plan, if one is available. In addition, the team should review national and/or municipal general disaster plans.

As you assemble your team, be sure to clarify the roles and responsibilities of key authorities.

Next, identify the key personnel responsible for each of the technical areas, or sectors, covered by the toolkit (for example, health). Have these key personnel develop concrete operational plans (i.e., continuity of government and continuity of operations plans) for each technical area based on a clear understanding of the potential impact of a pandemic on your municipality.

Review Tool 16, *Maintenance of Essential Services* and have each of the sectors in your municipality follow the steps outlined within it to create continuity of government and continuity of operations plans.

Finally, create preparedness programs for infection control and ***social distancing*** policies (See Tool 4, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality*), and begin to raise awareness in your community about these (See Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic*).

DETERMINE WHO WILL BE MOST AT RISK

For you and your team to be able to take any action—and to, ultimately, be able to reduce the number of deaths caused by influenza and by other diseases, acts of violence, or starvation—it will be essential for you or your municipal leadership team to have a clear sense of (1) those people in your municipality who are likely to be affected most by a pandemic and (2) the resources you have available to respond to that impact.

To learn how to identify your most vulnerable populations and determine how you will need to prepare, review Tool 8, *Classification of Food Security Risk Locations* and Tool 9, *Identification of People Most at Risk of Food Insecurity*.

ASSESS YOUR RESOURCES AND PLAN TO ADDRESS GAPS

Ask representatives from all of the sectors in your municipality to conduct an inventory of your municipality's essential resources. Among others, these include:

- Food stocks
- Medical resources, such as:
  - trained personnel
  - medications for non-pandemic illnesses
  - hospital beds
  - outpatient facilities
  - locations where makeshift hospitals could be set up
- Drinking water or water purification supplies
- Fuel for vehicles, generators, heating, and other types of equipment
- Communications needs, such as materials and channels, for information dissemination

Pay attention to resources that are produced locally, as well as the people who most depend on resupply to the area. Be prepared to organize and implement programs to mobilize the resources and personnel needed to deal with all impacts of a pandemic, from maintaining calm to managing dead bodies. Tool 15, *Disaster Management in a Pandemic*, can help you identify key areas to be assessed, while Tool 18, *Management of Dead Bodies*, suggests specific supplies you may need for one aspect of preparedness.

Tool 11, *Distribution of Emergency Food During an Influenza Pandemic*, can help you to assess your municipality's food stocks and fill existing gaps through the collection and storage of emergency food rations.

By increasing food availability in your municipality, and improving food access and utilization before a pandemic hits, you can potentially reduce the amount of emergency food assistance needed by your population. Refer to Tool 7, *Food Security in a Pandemic*, for measures to reduce potential food security problems.

Address gaps in household resources using Tool 10, *Household Food Security Preparedness*. This tool will help to raise awareness in your community about clear steps that households can take to maintain their access to food, income, and trading opportunities—before and during the pandemic. Neighborhood and community groups can help to fill any gaps that may exist if municipal sectors are overwhelmed. To familiarize yourself with what is required to organize these groups, use Tool 17, *Volunteer Coordination*.

Tool 15, *Disaster Management in a Pandemic,* and Tool 16, *Maintenance of Essential Services*, can help you to assess your healthcare and other needed resources. Tool 3, *Pandemic Health Impact Projection Tool* and Tool 5, *Triage: Prioritizing Care to Reduce Deaths*, will help your health sector in assessing resources needed to provide care to pandemic and non-pandemic patients. Use Tool 6, *Training for Community Health Responders (Sections I–III)*, to increase your capacity to provide household care and assistance.

Make sure to be prepared as to how you will get critical information to and from the people of your municipality during a time of crisis. Use Tools 12–14, in the section on *Crisis and Emergency Risk Communications* to help you advance all of your initiatives by communicating effectively with the community.

ASSESS RESOURCES—IMMEDIATE ACTIONS

1. Organize a planning and response team.
2. Stay informed. Make sure that you and your team understand your country's national pandemic plan, including communications guidance, and the potential impact of a pandemic on your municipality.
3. Assess the expected health impact and your available resources.
4. Assess your municipality's areas of vulnerability in terms of health and food security.
5. Conduct an inventory of food and other resources.
6. Determine the status of supply chains.
7. Address the gaps in your municipality's preparedness that you and your team have uncovered.
8. Identify spokespeople and channels for communicating with your community.

RESPONSE: WHAT YOU CAN DO DURING THE PANDEMIC

UPDATE YOUR INFORMATION

Find out what the World Health Organization and your government are saying about the influenza pandemic and their efforts to help. See the *Resources* section for trusted websites.

Gain a clear understanding of how the disease is affecting your municipality in sectors such as health, water, food, and governance. Use the most current information to recalculate your impact projections.

Determine the health status of your population, and estimate the likely impact of the pandemic as it evolves. Intensify your efforts to train all the health responders your municipality will need. For more information, see Tool 3, *Pandemic Health Impact Projection Tool*; Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic*; Tool 6, *Training for Community Health Responders* (Sessions I-III); and Tool 17, *Volunteer Coordinatioe.*

Use the news media and other communications channels to request the public's cooperation in keeping the municipality informed about neighborhood conditions. For more information, see Tool 14, *News Media Communication.*

Reassess the condition of the most vulnerable populations in your municipality, and verify the status of their sources of food and income as well as your community's stored emergency food stocks. For more information, see Tool 9, *Identification of People Most at Risk of Food Insecurity*, and Tool 11, *Distribution of Emergency Food During an Influenza Pandemic.*

UPDATE INFORMATION—IMMEDIATE ACTIONS

1. Check your national and international information sources for up-to-date information.
2. Make sure that all responders receive training on the threat of the influenza pandemic.
3. Convene your disaster response team, and ask for sector-specific updates.
4. Reassess the populations most at risk in your municipality based on updated information.
5. Update your inventory of food and other resources.
6. Assess the health status of your population and the municipality's capacity to continue providing access to healthcare for both pandemic and non-pandemic illnesses.
7. Facilitate two-way communications with your community in order to keep track of local conditions.

IMPLEMENT YOUR PANDEMIC RESPONSE PLANS

When disasters of any kind strike, the ability of a municipality to respond well is often linked to two factors: (1) the presence of strong leadership and (2) the level of coordination among the various responding sectors. The same is true in the case of a pandemic.

Whether it is the mayor, a municipal leadership team, or the head of a disaster response team, it is important to clearly identify who is in charge and who has the authority to allocate resources and make policy decisions that will affect the lives of the people in your municipality.

Use Tool 15, *Disaster Management in a Pandemic*, to guide your response planning.

Once the pandemic begins to impact your municipality, you and your disaster response team will need to focus on accomplishing the following *goals simultaneously.*

IMPLEMENT PLANS—IMMEDIATE ACTIONS

1. Open an emergency operations center.
2. Convene your disaster response team.
3. Activate all personnel with sector responsibilities.
4. Review Tool 15, *Disaster Management in a Pandemic*.
5. Provide, as needed, emergency pandemic training to the representatives of each of your municipality's sectors.

LIMIT THE SPREAD OF THE DISEASE

The key to getting through a pandemic is to limit the spread of the illness in your own municipality. Tool 4, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality*, will provide guidance on how, when and why to do this.

The Spanish Influenza pandemic in 1918 proved that there are actions municipalities can take early on to significantly reduce the number of deaths and the negative social and economic impacts of a pandemic. The measures needed to reduce the spread of the illness can, however, result in inconveniences to many and great hardships for some.

Some disasters are accompanied by outbreaks of communicable diseases. In the case of an influenza pandemic, the illness itself is the disaster.

Health officials who work at the national level in your country and in your municipality should advise you on how to best protect your population and prevent the spread of communicable diseases in your area. Protecting your population and preventing the spread of influenza and other communicable diseases will involve educating the public on how to avoid getting sick. However, it may also require the institution of public policies to help keep people away from each other to further limit the spread of the disease. These may include social distancing policies, such as:

- closing schools for several weeks;
- cancelling public gatherings and meetings;
- requiring sick people to stay at home (isolation); and
- requiring those who may have been exposed to the illness to stay away from people (quarantine) until it is determined whether they have the illness.

Although you will not need to know the scientific basis for taking these public health measures, you *will* need—as an executive leader or member of your municipal governing body—to be able to support others in carrying out these measures effectively. To do this, you may need additional law enforcement personnel.

LIMIT THE SPREAD—IMMEDIATE ACTIONS

1. Review the various non-pharmaceutical interventions available to you (Tool 4, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality*) and determine which of these you will need to implement in your municipality.
2. Provide information to the public to explain why social distancing is needed. Include in this information instructions for how the public can practice social distancing.
3. Enact any legislation or policies necessary to prevent public gatherings and events, to close schools and, if needed, to enforce isolation and quarantine.
4. Ensure that household isolation and quarantine measures are carried out.
5. Plan for a way to distribute food and other goods directly to families and individuals to prevent people from gathering around distribution points.

KEEP THE GOVERNMENT RUNNING

An influenza pandemic will have a devastating impact on your municipality's workforce. It will affect the workers who need to continue providing ***essential services*** to the people of your municipality, including those who (1) work in sanitation and waste disposal, (2) maintain the potable water supply for your municipality, (3) maintain your gas and electric services, and (4) transport goods. They will either be sick, unable to go to work due to disruptions in transportation systems, or unwilling to go to work due to fear of contracting the disease.

Poor sanitation and/or a lack of clean water will lead to other serious diseases (such as malaria, Chagas disease, dengue, and cholera). These diseases can cause as many deaths as influenza itself, and possibly more. Power outages could impact safe food storage, causing large amounts of food in the municipality to go bad. Service outages could also impact the ability of people to cook food safely.

After the pandemic is over, those municipalities that were able to keep their public well-informed and willing to support family- and community-level response strategies are very likely to see lower rates of death and suffering.

When a pandemic hits, more people than ever will need healthcare services, yet fewer healthcare personnel than ever will be available to take care of them. In fact, at the peak of the pandemic, you will experience up to 40% of all workers unable to work, either because they are sick, because they are caring for a family member who is sick, or because they are afraid to come to work.

These same factors will result in high rates of worker absenteeism across all the sectors as well as delays or interruptions in the delivery of supplies to your municipality. You will need to secure and protect critical goods, and ensure the continuation of essential services. Your challenge will be to identify those services that *must be* continued, even at the height of the pandemic. See Tool 16, *Maintenance of Essential Services.*

KEEP GOVERNMENT RUNNING—IMMEDIATE ACTIONS

1. Ensure that basic services and goods will continue to be provided to people in your municipality.
2. Determine your municipality's need for additional staff to maintain essential services. If you will use volunteers, provide them with the emergency training they need.
3. Identify vulnerabilities in critical goods and services and develop a plan to address these.

COMMUNICATE WITH THE PUBLIC TO PREVENT PANIC

When large groups of people are afraid of becoming sick, lack their basic needs, and feel a sense of suffering and despair, they are likely to respond in ways that can cause more panic and even more deaths. A calm and cooperative public, on the other hand, will work with municipal authorities to keep themselves and others in their community as safe as possible. Effective communications are crucial to keeping the public calm and aware of the actions they should be taking.

To keep the people of your municipality calm, you will need to understand—before the pandemic—the specific challenges that your population will face and how to best communicate with them during a time of crisis. Knowing this ahead of time will also help you develop a plan for how you will get information to households during a pandemic or other disaster—a successful plan will help you save lives.

In addition to strong leadership, preventing public panic will require anticipating the negative behaviors that some residents are likely to demonstrate (such as stealing and looting).

Finally, to help keep the people of your municipality calm, they will need to know that you can ensure their physical safety and that you can protect the key resources and services they need.

PREVENT PANIC—IMMEDIATE ACTIONS

1. Review the *Crisis and Emergency Risk Communications* section, Tools 12–14.
2. Create and plan the dissemination of key messages to the public. These messages will include up-to-date, accurate information about how people can protect themselves, the status of food supplies, and how they can secure access to healthcare services.
3. Be sure to include health messages offering guidance as to what people should do if they get sick and need care.
4. Find ways to give assurance to people in urban areas (who are most likely to see interruptions in the supply chain) that food will soon be as available to them as it is to those in rural areas. Provide them with whatever facts you can to give them the confidence they need to stay where they are.
5. Leverage communications to let people know that essential goods and resources are protected. Effective messages disseminated among the population will help to prevent looting and other acts of hostility or violence.

HELP FAMILIES MEET THEIR FOOD AND NUTRITION NEEDS

The global health impact of a pandemic may create a cascading effect on workforces, transportation systems, and supply chains. This impact in other areas of the world may result in your municipality experiencing a food crisis even before the influenza virus causes severe health problems. See Tool 7, *Food Security in a Pandemic*, for an overview of the potential impacts on municipal food supplies and ways to address them.

Once the pandemic arrives, you can help reduce possible food emergencies by monitoring food security at the local level. To best protect the community you will want to immediately update information about vulnerable populations and current food stocks. Use Tool 9, *Identification of People Most at Risk of Food Insecurity.*

If you determine that you need additional food stocks, work with private sector providers and any humanitarian agencies present in the municipality to secure essential nutritious food for emergency distribution. Use Tool 11, *Distribution of Emergency Food During an Influenza Pandemic.*

History shows that famine has occurred when a significant amount of food is committed for sale outside a region that is experiencing shortages. Restricting the export of locally produced foods is a measure that must be taken if local populations are suffering from hunger. Households may have less money to purchase food due to work absenteeism or illness. If food prices drastically increase, many staple food items may be out of reach for poor and newly vulnerable groups. Implementing price freezes on *staple* and *nutritious* food items important to local diets can help to keep food accessible during a pandemic wave.

An important component of maintaining municipal food security will be to help households help themselves. Use all available communication channels to spread the critical messages below that will help to protect household food security and livelihoods. Tool 10, *Household Food Security Preparedness* offers detailed guidance.

FOOD

- Eat food that will spoil first, for example, fresh vegetables and meat.
- If you have a lot of fresh food on hand, use traditional food preservation methods to prevent this food from spoiling.
- Try to regulate the food you eat each day so that what you have on hand will last 6–12 weeks, but do not threaten daily nutritional needs of any family member.
- Organize exchanges among neighbors using social distancing measures so that you are able to increase the variety of foods you eat.
- Do not hoard more food than your household needs. Hoarding puts other households at risk of hunger and suffering.

WATER

- Collect and store water in covered containers in case water supplies become scarce.
- Do not store water in containers that have been used to store nonfood products.
- Buy household bleach, purification tablets, or iodine so that you can purify water if your sources become contaminated.

MONEY

- Only spend cash on items that are absolutely necessary to keep your household healthy for 6–12 weeks. Food, water, cooking fuel, and medical supplies are priorities.

HELP FAMILIES MEET THEIR FOOD AND NUTRITION NEEDS—IMMEDIATE ACTIONS

1. If food supplies are limited in the municipality:
   - Communicate to central government and key organizations in the area your need for assistance.
   - Engage local food producing and processing industries.
   - Restrict the export of locally produced food crops necessary to feed the people in the municipality.
2. Provide transportation support that allows producers to get products to market or community food warehouses.
3. Implement price freezes on staple and nutritious food items if prices increase enough to be unaffordable to people on limited incomes.
4. Distribute emergency food rations once the pandemic has impacted households' ability to obtain enough food to meet their daily needs.
   - Prioritize who will receive food transfers based on your updated assessment.
   - Establish small decentralized drop off points or home deliveries.
5. Use Tools 12–14 on *Crisis and Emergency Risk Communications* to help spread critical messages that will help protect food security and livelihoods.

ALLOCATE SCARCE RESOURCES

During a pandemic, you can expect many basic goods and resources to be in short supply. Deciding how to best allocate goods and resources will require a strong leader or municipal leadership team with the authority to make very difficult decisions.

In many areas, the supply of basic goods, resources, and services simply will not be sufficient to meet the needs of your population. For example, your municipality may face shortages in:

- the number of doctors and nurses who are available to help;
- medical supplies (first aid and prescription and non-prescription medications);
- food; and
- gasoline and utilities.

Although these shortages will affect your municipality at the family and individual level, they will also have an impact on the workers who are responsible for *responding* during the disaster.

Initially, most leaders tend to think of the people who are sick as those who need resources the most. However, the indirect effects of the pandemic on all sectors of your municipality will make it critical for you to also consider those who are responsible for bringing needed goods and services to the people of your municipality.

Example: You receive one shipment of food, potable water, antiviral medications, or gasoline. You will need to guide your distribution according to set priorities, so that these can be used to support the well-being of the entire municipality and reduce the number of deaths. This means that, in addition to making sure that patients receive the care they need, workers or volunteers who provide support to families, or whose jobs or activities are considered essential to the functioning of your municipality, also receive priority. These workers and volunteers include those who provide law enforcement and other public safety functions, the utility workers who keep electricity running, and the information technology experts who keep the computers working. (*See* Tool 16, *Maintenance of Essential Services*.)

You will need to work with all of the sectors in your municipality to develop a list of personnel to have priority for available resources. Then, you will need to prioritize who, among them, will receive the available resources when there is not enough for even the most essential workers. You or your municipal leadership team will need to accomplish all of this in a way that the public can understand and accept. Use Tool 12, *Fundamentals of Communication During Crises and Emergencies*, to guide you in delivering this information in an understandable and timely manner. By communicating effectively, you will also help to ensure a calm and supportive public.

To help maximize the use of scarce health resources and assist your health sector in planning for the care of the many people who will be sick and dying, turn to Tool 5, *Triage: Prioritizing Care to Reduce Deaths* and Tool 6, *Training for Community Health Responders (Sessions I-III)*.

ALLOCATE SCARCE RESOURCES—IMMEDIATE ACTIONS

1. Develop policies and a process to prioritize the distribution of essential goods and services across all sectors.
2. Task your health sector with clinical triage and establish a plan for continued access to healthcare services at the family and community level.
3. Regularly monitor vulnerable families and individuals.
4. Communicate with local business leaders and networks of families (without congregating them) to determine which business activities generate the goods and services needed by others, and to determine who can loan cash, fuel, and other goods.

RECOVERY: WHAT YOU CAN DO AFTER THE PANDEMIC

GET LIFE AND COMMERCE BACK TO NORMAL

Once the pandemic is over, recovery efforts will be needed to bring life and commerce back to normal as soon as possible.

The recovery period of a pandemic helps communities strengthen and sustain all of the efforts that were undertaken during the preparedness and response stages. However, you may find that people in your municipality are reluctant to resume their usual activities. Parents may fear sending their children back to school, particularly to those that may have served as makeshift hospitals. People may still worry about close contact with others. Having your communications staff or volunteers work with the health sector on messages that can promote recovery can help you move forward during this phase.

After several severe pandemic waves, the tendency may be to analyze the situation simply in terms of needs and deficiencies, because both will certainly be immense. Yet a municipality must rely on an inventory of remaining assets and capacities if it is to find the power to regenerate itself. Initially, communities should determine what they can do immediately, without external assistance, using all existing skills, resources, and technical experience. Some recovery efforts may require more resources than a municipality has available. The team must then be prepared to communicate the priorities of the municipality to national and regional government, international agencies, and other sources of external support as soon as assistance becomes available.

Depending on the severity of impact, recovery operations may be implemented over a longer period—from soon after the pandemic is over, until one or two years later. (See Tool 19, *Recovery and Resilience*.)

RECOVERY—IMMEDIATE ACTIONS

1. Ask your health sector representatives to inform you when it is safe to resume normal activities. Have your communications sector prepare public messages.
2. Keep the public updated on all aspects of the pandemic and encourage them to resume activities when it is safe to do so.
3. Reestablish a sense of security. Reduce public fear and levels of grief.
4. Continue surveillance of the most vulnerable part of your population.
5. Strengthen and sustain relief activities. Help the groups of people that have been most affected by the pandemic to obtain short-term income and basic items such as water, food, shelter, medicines, and clothing.
6. Provide the necessary support to rebuild or to strengthen the capacity of your healthcare system.
7. Provide local preparedness and response training for future pandemic waves or other disasters.
8. Improve on pre-disaster living conditions and overall well-being.

ALL SECTORS

TOOL 2

PRESENTATION ON THE THREAT OF A SEVERE INFLUENZA PANDEMIC

PREPAREDNESS RESPONSE

This tool will help you to:

- Provide a thorough introduction to your staff and volunteers about the key aspects of an influenza pandemic that should inform their planning and response efforts

Who will implement this tool:

- The mayor or members of the ***municipal leadership team***, ***emergency response team***, ***disaster management team***, and ***communications support team***, among others
- Lead staff from any of the sectors of the municipality

This tool was developed as a slideshow prepared using PowerPoint® presentation software that you can use to provide an orientation to planning and response staff and volunteers (e.g., emergency response personnel, community health responders) who are not familiar with pandemic influenza or its potentially wide-ranging effects on communities.

The tool introduces the viewer to:

1. The disease and its symptoms, and how the disease spreads
2. The measures that can be taken to limit the spread of the disease and reduce its impact
3. Background information about past pandemics, their impact on communities, and lessons learned from the planning and response efforts that took place then
4. How a pandemic is expected to start in a municipality

This tool consists of two parts: a PowerPoint presentation with notes and a separate slide-by-slide Presenter Guide. The notes provided in the slides and in the guide are to assist you in presenting the material. It is important to note, however, that as the presenter, you should review and modify the slides as needed to accurately reflect the local language and the local context.

NOTE: A print-out of the PowerPoint slide presentation and the presenter guide immediately follow. For the electronic version of the presentation, please refer to the companion CD-ROM in this toolkit.

TOOL 2: PRESENTATION ON THE THREAT OF A SEVERE INFLUENZA PANDEMIC

FACILITATOR GUIDE TABLE OF CONTENTS

Slide 1: Understanding the Threat of a Severe Influenza Pandemic....3

Slide 2: Introduction to Pandemic Planning and Response....3

Slide 3: What is Seasonal Influenza?....3

Slide 4: What are the Symptoms of Seasonal influenza?....4

Slide 5: More Symptoms....4

Slide 6: What is Pandemic Influenza?....4

Slide 7: Pandemic Illness....4

Slide 8: The Difference between Seasonal and Pandemic Influenza....5

Slide 9: What is Avian Influenza (Bird Flu)?....5

Slide 10: What is Swine Influenza?....6

Slide 11: What is H1N1?....6

Slide 12: How do Seasonal and Pandemic Influenza Spread?....6

Slide 13: How do Seasonal and Pandemic Influenza Spread? (2)....6

Slide 14: What Have We Learned from Past Pandemics?....7

Slide 15: What Have We Learned from Past Pandemics? (2)....7

Slide 16: What Can be Done to Slow or Decrease the Impact?....7

Slide 17: How Will a Pandemic Start in My Municipality?....8

Slide 18: WHO Phases....8

Slide 19: WHO Pandemic Phases and Currently Circulating Novel Viruses....9

Slide 20: What Will Life be Like in a Severe Pandemic?....9

Slide 21: Shortages of Essential Goods....10

Slide 22: Supply Chain Delays or Disruptions....10

Slide 23: Disruption in Routine Services....11

Slide 24: Changes in Public Transportation and Other Services....11

Slide 25: Healthcare Systems Overwhelmed....11

Slide 26: Restrictions of Personal Movement....12

Slide 27: How Can Municipalities be Prepared for a Severe Pandemic?....12

Slide 28: Two Cities in 1918....13

Slide 29: Sources....13

SLIDE 1: UNDERSTANDING THE THREAT OF A SEVERE INFLUENZA PANDEMIC

Whether from a more lethal strain of H1N1, or a completely new virus that emerges, the threat of a severe influenza pandemic (global influenza outbreak) is real. Leadership from municipal authorities and from respected community members is needed to prepare our municipalities, reduce the impact of an influenza pandemic on individuals and families, and reduce or even prevent serious damage to the economy.

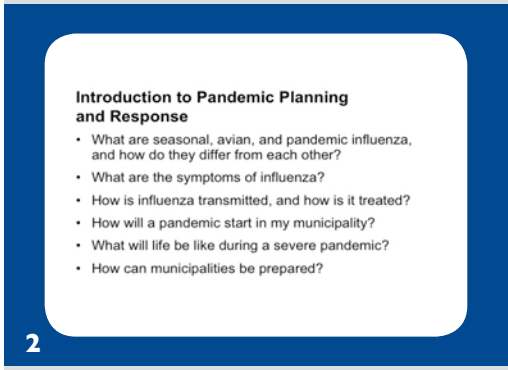
A mild pandemic may resemble a severe outbreak of seasonal (usual) influenza, but a severe pandemic could result in economic and social catastrophe. While it may not be possible to *prevent* a severe pandemic from reaching your local area, there is much that local governments and their leadership teams can do to *prepare* to lessen the impact.

If a country is not adequately prepared, a severe pandemic will not only cause many influenza cases and deaths, it will also impact the country, municipalities, and families economically. The central government alone cannot prepare the nation for an influenza pandemic—this challenge requires your help. As a leader in your municipality, you can play a powerful role by providing information and guidance to encourage people to prepare—either through your position of authority in the municipality or through contacts with your colleagues, friends, neighbors, and others. You can also send a powerful message by preparing for the pandemic yourself.

SLIDE 2: INTRODUCTION TO PANDEMIC PLANNING AND RESPONSE

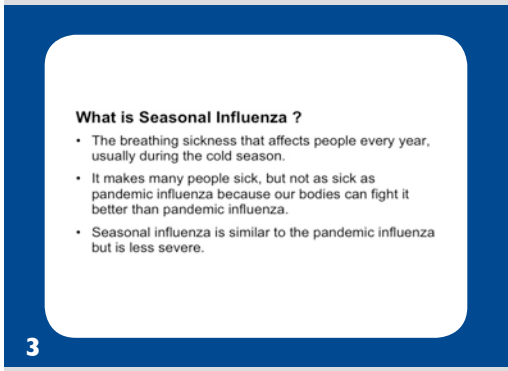
The goal of this presentation is to give you a sense of what a pandemic is, how we expect it to begin, what will happen to people and to the economy, and how you can prepare for it. During this presentation, we will answer the following questions:

- What is seasonal influenza?
- What is an influenza pandemic?
- What is avian influenza (bird flu)?
- How do seasonal, avian, and pandemic influenza differ from each other?
- What are the symptoms of influenza?
- How is influenza spread and how is it treated?
- What have we learned from past pandemics?
- What can be done to slow or decrease the impact of a pandemic?
- How will the pandemic start in my area?
- What will life be like during the pandemic?
- How can municipalities prepare?



SLIDE 3: WHAT IS SEASONAL INFLUENZA?

This slide summarizes seasonal influenza. Nearly every country in the world experiences seasonal influenza outbreaks every year. It is a cause of many cases of illness, deaths, and increased healthcare costs.



SLIDE 4: WHAT ARE THE SYMPTOMS OF SEASONAL INFLUENZA?

Although the symptoms of the pandemic influenza are similar to typical seasonal influenza, it is possible that other symptoms may appear. Continue to check the World Health Organization Website (www.who.org) and national authorities to obtain updated information on symptoms.

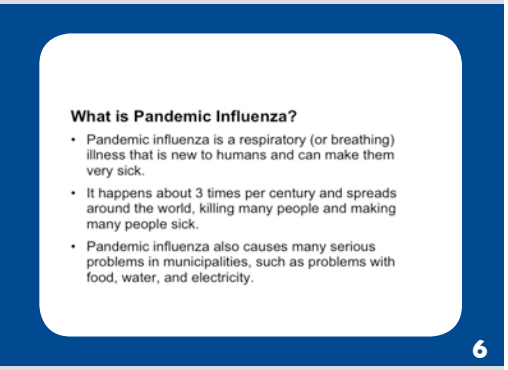
SLIDE 5: MORE SYMPTOMS

Influenza in children is often harder to diagnose because the most common symptoms in children may differ from those in adults.

SLIDE 6: WHAT IS PANDEMIC INFLUENZA?

A pandemic is a global outbreak of a contagious disease. A pandemic of influenza occurs when a new variety—or strain—of influenza virus emerges that is able to spread directly from one human to another human. Because people have not been exposed to such a new virus, they will have little or no ***immunity*** (resistance) to it. Therefore, the disease can spread easily among people and travel quickly around the world.

In addition to the 2009 emergence of the H1N1 pandemic virus, three influenza pandemics occurred in the past century: the very severe Spanish Influenza pandemic in 1918, and two milder ones in 1957–1958 and 1968–1969. The last two pandemics were relatively mild, resulting in a worldwide distribution of severe illness in people of all ages, many lost days of school and work, and an estimated 2.5 million deaths, mostly in people over the age of 60. The first of these pandemics—that of 1918–1919—caused an estimated 40 million deaths in people of all ages, with many deaths of otherwise healthy young adults. Articles published in scientific and medical journals at the time describe severe illness and death, with a breakdown of routine health and burial services in almost all major cities, closure of public gathering places, and isolation or ***quarantine*** of those infected or those exposed to infected people in an attempt to stop the spread of infection.



SLIDE 7: PANDEMIC ILLNESS

[Photos: Scenes from the 1918 pandemic.]

A pandemic causes many illnesses and deaths for two main reasons: (1) the entire world's population is vulnerable because they have no immunity against the virus, and (2) it often causes a more serious version of the illness with more complications—such as pneumonia, dehydration, and an acute respiratory distress syndrome—compared with a typical seasonal influenza.

In a pandemic, nearly all people worldwide are susceptible to the virus, and around 30% of the population becomes sick. The percentage of the population that gets the illness is nearly twice that of a typical seasonal influenza epidemic. The number of people that die from a pandemic is related to the severity. In a usual influenza, the death rate is very low. In 1918, the case fatality ratio (the ratio of people who die from the disease divided by the number of people who get the disease) was around 2%. This means that 2 of every 100 people that got the disease died from it. It is well accepted that populations that have fewer resources and other risk factors experience much higher death rates.

SLIDE 8: THE DIFFERENCE BETWEEN SEASONAL AND PANDEMIC INFLUENZA

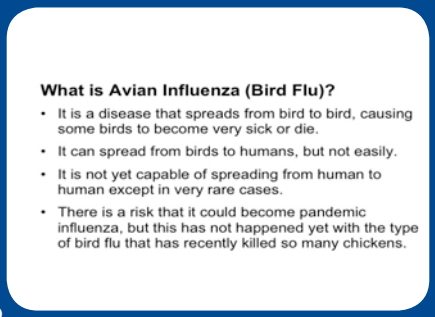
8

[Photos: People sick with influenza]

It is very important to remember the differences between seasonal influenza (usual influenza), and pandemic influenza. Seasonal and pandemic influenza are similar in a number of ways, such as the mode of transmission of the virus. However, they also differ in important ways.

First, in contrast to pandemic influenza, people have some immunity to seasonal influenza built up from previous exposure to the viruses. Second, symptoms of pandemic influenza may be more severe than seasonal influenza, and more people are likely to die from pandemic influenza than from seasonal influenza. Third, pandemic influenza could happen at any time of the year, whereas seasonal influenza usually occurs in the fall and winter in non-tropical areas. Finally, vaccines for seasonal influenza are available each year and are based on known circulating influenza strains, whereas vaccines for pandemic influenza may not be available for 4–6 months after a pandemic starts. This is because it takes 4–6 months to develop a vaccine once the new viral strain is identified.

SLIDE 9: WHAT IS AVIAN INFLUENZA (BIRD FLU)?

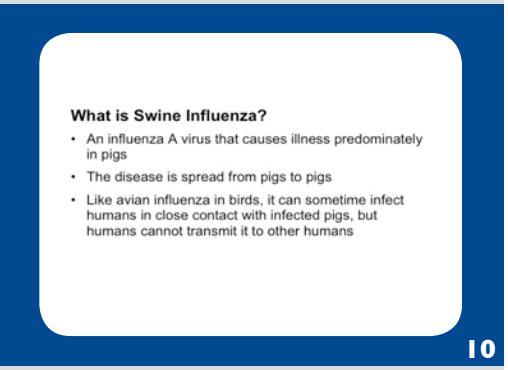


9

Many people confuse bird flu with a pandemic, but they are very different diseases. Avian influenza (bird flu) is a disease of birds, not humans. It infects wild birds (such as ducks, gulls, and shorebirds) and domestic poultry (such as chickens, turkeys, ducks, and geese). The strain known as H5N1 is only one of many strains of bird flu viruses. (Similarly, seasonal human influenza has many strains. This is why we have to develop a new vaccine every year.)

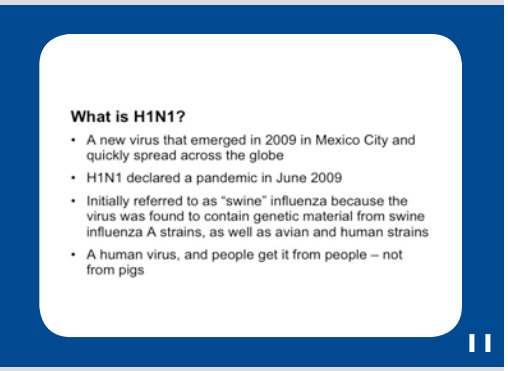
Bird flu outbreaks result in high economic losses because it is necessary to kill birds to contain the spread, but these outbreaks are not usually a risk to human health. H5N1 is a very deadly strain that is rapidly spreading in some parts of the world. Although the virus does not usually infect people, it is possible for humans to become infected under certain circumstances, such as direct contact with infected poultry. In fact, more than 400 human cases in 15 countries have been reported since 2004. Most people who have become sick or died from this virus have had extensive, direct contact with sick poultry. However, evidence suggests that H5N1 is changing, and experts are concerned that the virus may become capable of directly infecting humans and spreading from person to person, potentially resulting in a human influenza pandemic. This is why the WHO is watching this virus so closely.

At this time, H5N1 is still a bird virus, not a human virus. If it becomes a human virus, we will see more human cases clustered together, and ultimately the appearance of a strain capable of spreading between humans. However, as we saw with the emergence of H1N1, it is also possible that an entirely new influenza virus can appear at any time, or H1N1 could change over time into a more severe strain. Scientists worry that the current situation of the presence of H5N1 (a very lethal animal virus) and H1N1 (a milder human virus) could result in a new virus that could cause a very severe pandemic.



SLIDE 10: WHAT IS SWINE INFLUENZA?

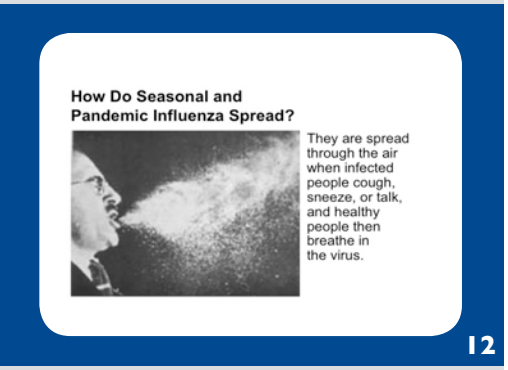
Swine influenza is an influenza A virus that causes infection in pigs. Like avian influenza in birds, it can sometimes cause illness in humans in close contact with infected pigs, but humans cannot transmit it to other humans.



SLIDE 11: WHAT IS H1N1?

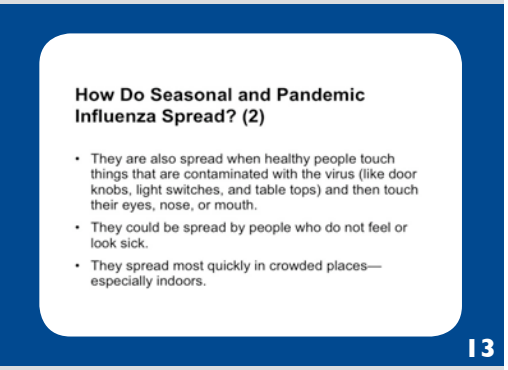
H1N1 is the new virus that emerged in 2009 in Mexico City and quickly spread across the globe.

It was declared a pandemic in June 2009. The virus was initially referred to as "swine" influenza because the virus was found to contain genetic material from swine influenza A strains, as well as avian and human strains. However, while the H1N1 virus appears to have emerged, at least in part, from a pig virus, this is a human virus, and people get it from people—not from pigs.



SLIDE 12: HOW DO SEASONAL AND PANDEMIC INFLUENZA SPREAD?

The pandemic influenza virus is expected to be transmitted in the same way as seasonal influenza—through large respiratory "droplets" that contain the influenza virus. These droplets are released through coughing and sneezing and can then come in contact with the nose or mouth of a healthy person—or they may be breathed in by a healthy person. The droplets released through coughing and sneezing tend to settle within 3 feet. Under most conditions, they rapidly dry out and the virus dies. Therefore, the key to preventing infection is to stay away from these droplets by trying to stay at least 1 meter away from someone who is sick with influenza.



SLIDE 13: HOW DO SEASONAL AND PANDEMIC INFLUENZA SPREAD? (2)

Seasonal and pandemic influenza can also be spread when healthy people touch things that are contaminated with the virus and then touch their eyes, nose, or mouth.

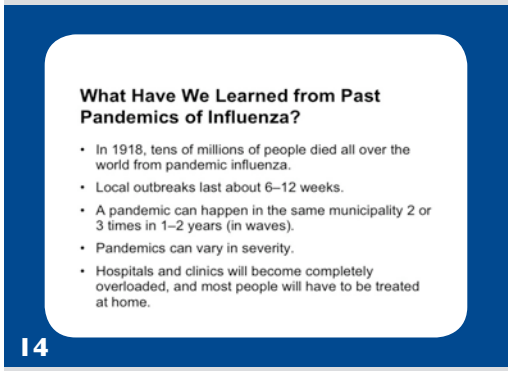
Therefore, the same precautions used to combat seasonal influenza are expected to be effective barriers to infections with the pandemic virus: good hand washing, covering of one's cough, and staying away from sick people.

These viruses could be spread by people who do not feel or look sick, and they spread most quickly in crowded places—especially indoors.

However, the pandemic influenza virus is very much like a common seasonal influenza virus in that it is spread in the same way, through respiratory "droplets" from coughs and sneezes.

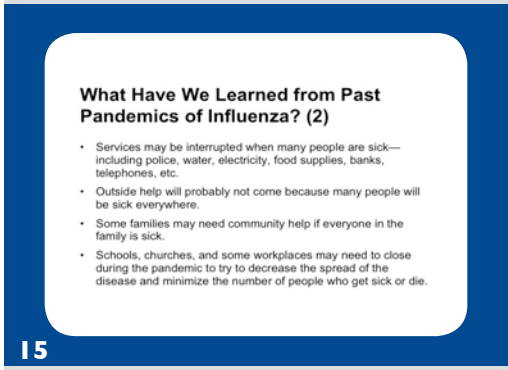
SLIDE 14: WHAT HAVE WE LEARNED FROM PAST PANDEMICS?

Pandemics have broad, complex, and catastrophic impacts—including health, societal, and economic impacts. They tend to recur in 1–3 waves of illness lasting approximately 6–12 weeks each over a period of 1–2 years. The number of sick and dying people far exceeds the available healthcare resources, and shortages of many other critical resources occurs.



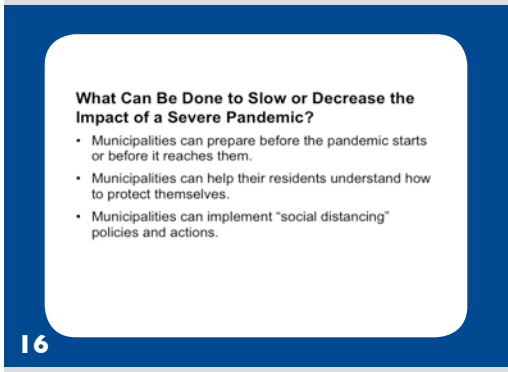
SLIDE 15: WHAT HAVE WE LEARNED FROM PAST PANDEMICS? (2)

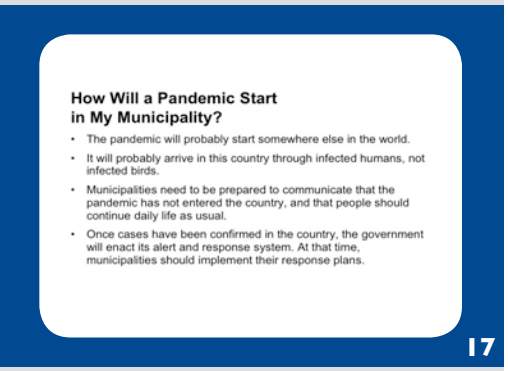
We have every reason to believe that preparedness and response at the municipal level will probably determine how severely a municipality is impacted. The municipalities that will be best able to cope with the impacts of a severe pandemic will be those that are well prepared; have local stockpiles of essential goods or plans to obtain them; and that can rely on their own populations and local resources to help care for the sick, provide essential services, and maintain social order. As we have seen repeatedly during other disasters, the ability of a municipality to keep the public well informed and calm is the key to an effective response.



SLIDE 16: WHAT CAN BE DONE TO SLOW OR DECREASE THE IMPACT OF A SEVERE PANDEMIC?

Municipalities are unlikely to have access to sufficient quantities of anti-viral medications, and a vaccine is not expected to be manufactured until after the first wave of a pandemic. However, evidence suggests that simultaneously using good hygienic practices and "social distancing" strategies, which are intended to keep people away from each other, can dramatically alter the spread of the virus in a municipality. Interventions such as good hygiene and social distancing strategies are called non-pharmaceutical interventions (because they do not involve medicines). These interventions can be used to (1) delay the start of the pandemic, allowing more time for final preparedness activities; (2) decrease the peak impact, minimizing the peak overload of the healthcare sector and decreasing peak rates of workforce absenteeism (lost days of work); and (3) decrease the total number of people who become sick and die from the disease.





SLIDE 17: HOW WILL A PANDEMIC START IN MY MUNICIPALITY?

Most likely, the pandemic will arrive through exposed or sick people entering the country from another area. Because of the characteristics of the illness and the way it can be diagnosed, it will not be possible or practical to close borders or to effectively screen travelers during a pandemic. This is because it is possible for people to spread the disease before they have any symptoms, and there are no lab tests currently available to detect asymptomatic cases in a practical and cost effective way. While governments could prevent people with fevers, cough, or other symptoms from entering an area, others who have not yet developed the symptoms will pass through and spread the illness. Health resources are better used to detect and treat cases rather than wasted through attempts to prevent the virus from entering an area.

As was seen with H1N1, it may be weeks to months before a local area experiences cases of a new influenza virus. This is a very vulnerable period for the country. As people hear the news that a pandemic has started, they may begin to fear getting sick and may be reluctant to go about their usual activities, even though no cases have yet occurred inside the country. This could (1) slow down local commerce; (2) cause children to miss school; and (3) lead people to buy whatever goods are available for stockpiling, depleting the availability of these goods and decreasing family wealth. The country and its municipalities must have a clear plan in place for this period to prevent unnecessary harm to the people and the economy.

SLIDE 18: WHO PHASES

WHO has defined phases of pandemic alert, as follows:

In nature, influenza viruses circulate continuously among animals, especially birds. Even though such viruses might theoretically develop into pandemic viruses, in *Phase 1* no viruses circulating among animals have been reported to cause infections in humans.

In *Phase 2* an animal influenza virus circulating among domesticated or wild animals is known to have caused infection in humans, and is therefore considered a potential pandemic threat.

In *Phase 3*, an animal or human-animal influenza virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. This is the current phase for the H5N1 avian influenza virus.

Phase 4 is characterized by verified human-to-human transmission of an animal or human-animal influenza virus able to cause "community-level outbreaks." Phase 4 indicates a significant increase in risk of a pandemic but does not necessarily mean that a pandemic is a foregone conclusion.

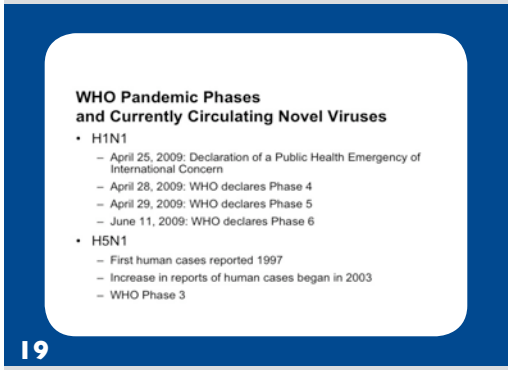
Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

Phase 6, the pandemic phase, is characterized by community-level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in *Phase 5*. Designation of this phase will indicate that a global pandemic is underway. This is the current phase for the H1N1 virus.

The *post-peak period* signifies that pandemic activity appears to be decreasing; however, it is uncertain if additional waves will occur and countries will need to be prepared for a second wave.

In the *post-pandemic period*, influenza disease activity will have returned to levels normally seen for seasonal influenza.

SLIDE 19: WHO PANDEMIC PHASES AND CURRENTLY CIRCULATING NOVEL VIRUSES



The emergence of a novel virus that is capable of infecting humans marks these viruses as having pandemic potential. The H5N1 virus continues to cause widespread animal outbreaks and sporadic human cases with high case fatality ratios. Despite the ongoing concern that this virus may one day develop efficient human to human transmission and result in cases across geographic areas, to this date it remains at Phase 3.

In contrast, H1N1 escalated to a Phase 6 declaration within two months of the first reported human cases. This virus demonstrated efficient human-to-human transmission from the onset, and quickly spread around the world.

These two viruses demonstrate the use of the WHO pandemic phases to describe geographic spread, not severity. Despite remaining at Phase 3, the H5N1 virus continues to have a much higher case fatality ratio than the H1N1 virus. There is great concern that if these two viruses should mix in a human or an animal, a new virus that has the high death rate of the H5N1 virus and the capability to spread easily from person to person, like H1N1, could result.

SLIDE 20: WHAT WILL LIFE BE LIKE IN A SEVERE PANDEMIC?

Daily life will change dramatically, and most of the changes will be directly related to the loss of the workforce through illness and fear. The high rates of absenteeism across sectors will result in shortages of essential goods, disruptions in routine services, altered or cancelled public transportation and other services, and a healthcare system that is unable to meet the needs of the large numbers of sick and dying people. In addition, personal movement may be restricted in an attempt to slow the transmission of the virus within communities and to decrease the number of people who get sick.

Economic losses are expected to be severe, and a loss of public order may occur. Recovery may be difficult because local commerce will have suffered, and people may be afraid to resume normal activities.

We will explore each of these areas in more depth in the next set of slides.

SLIDE 21: SHORTAGES OF ESSENTIAL GOODS

Anything that depends on resupply will be vulnerable to delays or interruption. These supply chain shortages will likely result in critical shortages of food, fuel, medical supplies, spare parts for infrastructure maintenance, and other essential goods. Concern about becoming sick may cause people to stop going to work or the market or to stop sending their children to school. Commerce will slow or will be suspended as businesses and markets close because of loss of the workforce, loss of customers, or by order to contain the illness. This will result in a loss of family income and livelihoods for many.

Fear and panic may lead to excess consumption and personal hoarding, further depleting the wealth of individuals and families and reducing the availability of goods for others. Hostility and violence may erupt over access to scarce goods and services, and the most vulnerable people (for example, those who are poor, illiterate, chronically ill, or disabled) may be the most seriously affected.

Municipalities will need to have a plan to maintain social order and to ensure that residents remain calm. This is best done through a combination of effective leadership, the use of trusted spokespeople, effective public education and communication about risk, the use of law enforcement officials as needed, and locally available goods and stockpiles to sustain the community.

Available goods will likely be consumed early in the pandemic. Once WHO declares a pandemic, it will be difficult to bring goods into the country to increase local stockpiles. Therefore, municipalities will only have what they have on hand at the onset of the pandemic, plus any goods they can continue to produce, or that aid organizations are able to get to them. It s likely, therefore, that most areas will experience severe shortages of essential items, such as food, potable water, medicines, and fuel.

SLIDE 22: SUPPLY CHAIN DELAYS OR DISRUPTIONS

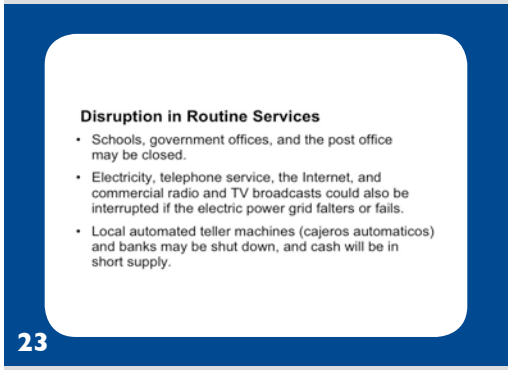
[Photos: Supply chain]

Most areas of the world are dependent on an international supply chain, as well as national and local trucking and other distribution and delivery systems. As people begin to get sick, and others stay home from work because of fear or other responsibilities, all sectors will experience high rates of worker absences. Deliveries of goods to the area will be disrupted as truck drivers, loading dock personnel, and all other people needed to move goods from one place to another are not available to work.

Available goods will probably be consumed early in the pandemic. During a severe pandemic, it will be difficult to bring goods into the country to increase local stockpiles. Therefore, municipalities will only have what they had on hand at the onset of the pandemic, as well as any goods they can continue to produce or that aid organizations are able to bring to them. Therefore, most areas will probably experience severe shortages of essential items, such as food, potable water, medicines, and fuel.

SLIDE 23: DISRUPTION IN ROUTINE SERVICES

Schools, government offices, and the post office may be closed. Utilities, communication services, and information networks may be disrupted, resulting in a loss of service. Banks may close or may experience a high rate of cash withdrawals, and automated teller machines may not be serviced.



SLIDE 24: CHANGES IN PUBLIC TRANSPORTATION AND OTHER MUNICIPAL AND PRIVATE SERVICES

Public and private transportation may be slowed or stopped. Fuel may need to be rationed. Municipal workers, such as garbage collectors, utility repair people, water and sewer maintenance workers, and others who provide other critical infrastructure needs will also become ill. Municipalities will probably experience a decrease in services in these areas.

SLIDE 25: HEALTHCARE SYSTEMS OVERWHELMED

[Photo: A scene from the 1918 pandemic.]

Healthcare systems will certainly be overwhelmed in a severe pandemic and critical shortages of doctors, nurses, and community health workers will occur. In fact, just when the need for healthcare is the greatest, at the peak of the pandemic's impact, the highest absenteeism rates are expected. In addition, non-pandemic health issues will continue and may even increase because of an overall decrease in access to healthcare. Difficult decisions will need to be made to allocate the scarce medical resources, and both the public and the healthcare providers will need mental health support.

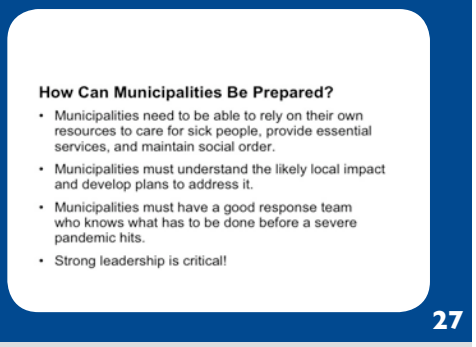
Many cases of the influenza will be mild, and will not require any specialized care or attention. Most of the sicker patients will need to care for themselves or will need family members or community volunteers to assist in their care. The municipality simply will not have enough doctors, nurses, or healthcare workers to provide care to all of the influenza patients as well as those with non-pandemic health issues. It is very important for municipalities to know who the most vulnerable people are (for example, medically vulnerable children, elderly people, pregnant women, and those with compromised immune systems) and to have incorporated them into the response plan. The best way to decrease the overall impact of the pandemic is to help the municipality become as self-sustaining as possible—this will include ensuring that influenza patients care for themselves as much as possible.

SLIDE 26: RESTRICTIONS OF PERSONAL MOVEMENT

Community containment measures may be needed to limit the spread of a severe pandemic in the municipality. Personal movement may be restricted because of travel advisories and other limits on movement. Public gatherings and events may also be cancelled or prohibited. Schools may be closed, and people may be asked to limit their interactions with others, such as at markets.

People who are sick may be required to stay at home or away from others until they recover (referred to as isolation), and people who may have been exposed to a sick person may also be asked to stay away from others for a few days to determine if they are ill (referred to as quarantine). Isolation and quarantine are two important public health measures that will probably be needed. Your help may be needed to educate people about these measures, and to enforce their implementation.

Although these efforts will be important to the survival of the community in a severe pandemic, they may lead to further impacts on the commerce and social well-being of residents. Municipalities must also work to prevent human rights violations that could result from the misuse or discriminatory use of these measures.



SLIDE 27: HOW CAN MUNICIPALITIES BE PREPARED FOR A SEVERE PANDEMIC?

The most important thing to do is to start planning for your municipality now.

Understand the likely impact on your municipality and develop plans for the peak impact and for impacts in each sector.

- Plan for public education and effective communication of risk.
- Plan ways to ensure that the necessary functions and services of government, businesses, and organizations can continue.
- Plan for preparedness and response related to health, food availability and access to food, and income and livelihood issues.

To plan for the pandemic, you can build on general disaster planning. Be sure to:

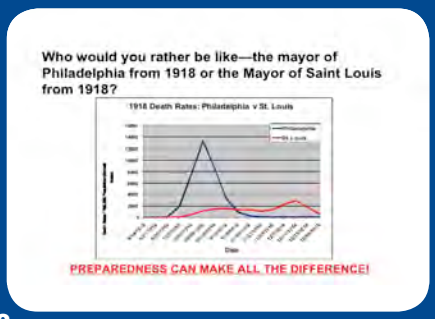
- Include nongovernmental organizations and other partners in the planning process to develop contingency plans for essential goods.
- Include banking and other commerce representatives to develop economic mitigation and recovery plans.
- Identify response leaders and public spokespeople.
- Develop policies on school, market, and business closing and re-opening and ways to reassure the public when it is safe to resume activities.
- Maximize stockpiling before the pandemic (NOW!).

SLIDE 28: TWO CITIES IN 1918

This graph is based on data from two cities in the U.S. during the 1918 pandemic. Philadelphia experienced many deaths, whereas St. Louis experienced relatively few. The difference between these two curves is due to the actions taken (and not taken) by the municipal governments in these two cities. Both cities were hit by the pandemic, and they were under the same national government. However, they had very different experiences.

St. Louis instituted social distancing policies as soon as there were cases in the area. Philadelphia delayed their use for 1–2 weeks after cases began. It is believed that the rapid implementation of the social distancing interventions was the primary factor responsible for the lower mortality rate experienced by St. Louis.

What will the graph look like for your municipality when we study the impacts after the next severe pandemic is over? What can you do now to be sure that your municipality can protect itself the way that St. Louis did?



28

SLIDE 29: SOURCES

- CDC (Centers for Disease Control and Prevention). Pandemic influenza planning checklists. www.pandemicflu.gov, http://pandemicflu.gov/plan/states/statelocalchecklist.html
- CDC. Risk communication. http://www.pandemicflu.gov
- CDC. 2007. *Interim pre-pandemic planning guidance: Community strategy for pandemic influenza mitigation in the United States.* Atlanta, GA: CDC. http://pandemicflu.gov/plan/community/community_mitigation.pdf
- WHO (World Health Organization). 2004. *WHO influenza pandemic preparedness checklist.* Geneva: WHO. http://www.wpro.who.int/NR/rdonlyres/25885074-7A3B-442A-834E-E96484D14D69/0/WHOInfluenzaPandemicPreparednessChecklist.pdf
- WHO. 2009. *Pandemic Influenza Preparedness and Response.* http://www.who.int/csr/disease/influenza/PIPGuidance09.pdf
- WHO. 2008. *Pandemic influenza preparedness and mitigation in refugee and displaced populations.* 2nd ed. WHO/HSE/EPR/DCE/2008.3. Geneva: WHO. http://www.who.int/diseasecontrol_emergencies/guideline/en/index.html
- WHO. 2009. *WHO guidelines for pandemic preparedness and response in the non-health sectors.* Geneva: WHO. http://www.un-pic.org/pic/web/documents/english/WHO%20WOS%20Pandemic%20Readiness%202009-05-05.pdf

29

HEALTH

TOOL 3

PANDEMIC HEALTH IMPACT PROJECTION TOOL (USER GUIDE AND EXCEL WORKBOOK)

PREPAREDNESS RESPONSE

***Before* the pandemic, this tool will help you to:**

- Estimate the number of influenza cases and deaths your municipality will experience
- Identify the peak pandemic period
- Plan for different pandemic severity scenarios

***During* the pandemic, this tool will help you to:**

- Secure information to help you make decisions about the best use of scarce healthcare resources (once you have more up-to-date, accurate information about the pandemic illness)

Who will implement this tool:

- The mayor and the ***municipal leadership team***
- Hospitals and healthcare providers
- Those already in charge of disaster triage planning and protocols
- Community healthcare organizations and volunteers
- Employers

WHAT YOU SHOULD KNOW BEFORE USING THIS TOOL

The Pandemic Health Impact Projection Tool (IPT) will not tell you exactly how many people will get sick or how many will die in your municipality. No one can accurately predict the impact because it takes time to understand the characteristics of a new virus, and viruses can change while a pandemic is underway. The tool simply calculates estimates of what you can expect, but these may change as more information becomes available. The estimates are based on the best available understanding of viruses and past pandemics.

NOTE: This User Guide provides instructions for using the Pandemic Health Impact Projection Excel Tool. For the Excel tool, please refer to the companion CD-ROM of this Toolkit.

HOW TO USE THIS TOOL

1. ENABLE MACROS

You need to enable macros to use this Excel tool. When you first open the tool, your computer should prompt you to "enable macros." The tool will not function properly until you have done this. Each version of Excel is a little different, but there will be a setting to enable macros. If you have difficulty in using this Excel tool, please check your security settings or access the help function on your computer.

2. ENTER YOUR DATA ON THE HOME PAGE

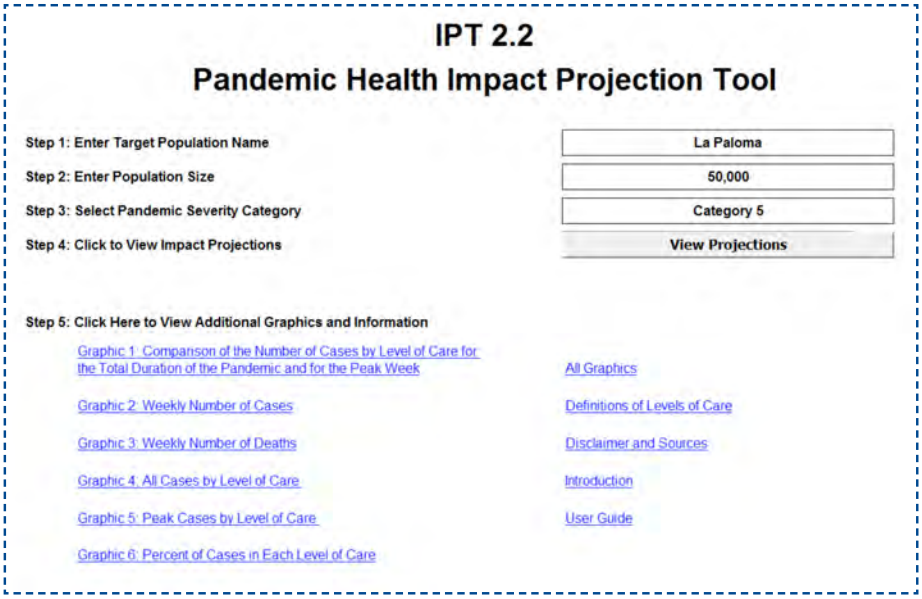
After clicking one of the buttons to begin working in the Excel tool, you will see a home screen like the one shown on the following page of this toolkit, with some sample information already placed in the top three boxes. You will replace this sample information with your own data.

The only data you need to generate the impact projections is the number of people in the population that you are looking at.
The population can be any size, large or small, such as a single municipality, a district, the entire country, or a subset of a population (such as the number of children in a village or the number of workers in a business).

Impact Projection: The estimated number of deaths and seriously ill persons who will require care.

Type the population name in the first box.

Type the population size or estimate it in the second box. You must have a population size in order to be able to use this tool. If you do not know the size of your population, you can estimate it. Also, you can use the population size of a similar municipality or the population size of a district that represents a fraction of your country's population.



3. SELECT A PANDEMIC SEVERITY CATEGORY

Hold your cursor over the third box. A drop-down menu will appear with five choices of pandemic severity. Please select a category from the drop-down menu.

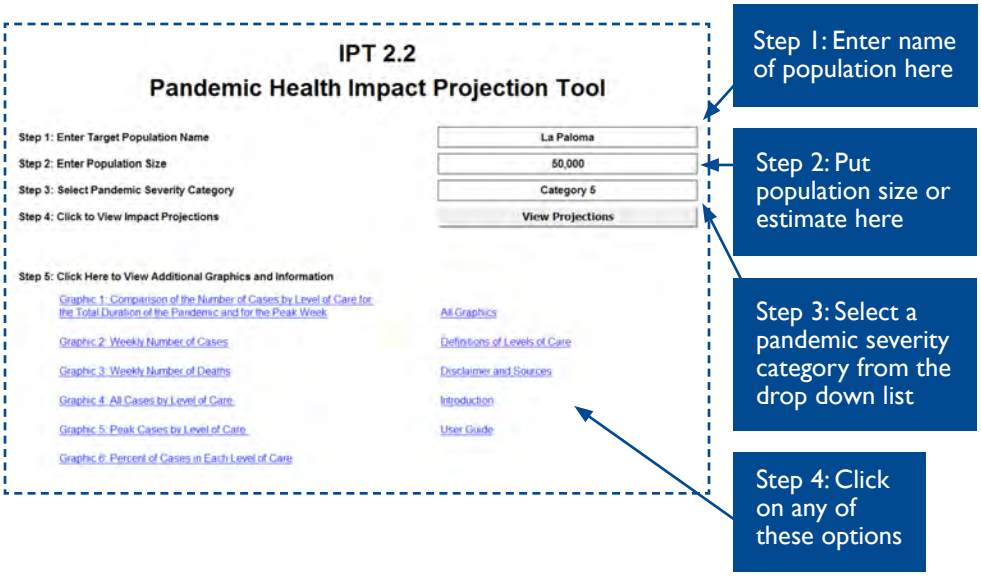
What is a pandemic severity category?
Not all pandemics are the same. They can vary, like hurricanes and other disasters, from mild to severe. The 1918 pandemic is considered by the World Health Organization (WHO) and the U.S. Centers for Disease Control and Prevention (CDC) to be the most severe form of a pandemic that we need to plan for. In this tool, pandemics are graded from Category 1 (the mildest form) to Category 5 (the most severe, like 1918) based on the percentage of sick people who are expected to die from the illness, or the case fatality ratio (see "Case Fatality Ratios by Pandemic Severity Category" on page 5 for more details). For information on additional determinants of severity, see http://www.who.int/csr/disease/swineflu/frequently_asked_questions/levels_pandemic_alert/en/index.html.

How do I know which category to select?
For planning purposes, the recommendation is to plan for the worst: a Category 5 pandemic. Nonetheless, it is a good idea to look at the projections for the other categories as well, in order to get a sense of the range of possible impacts that a pandemic could have on your municipality.

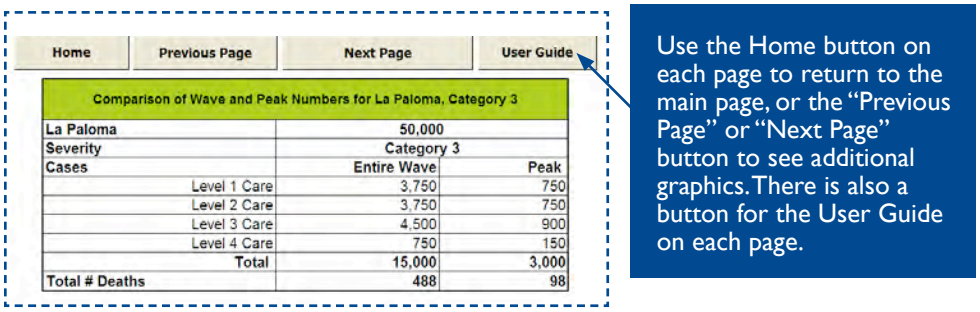
4. VIEW RESULTS

Simply click on the gray button "View Projections" or select from a series of additional graphics. The graphics may be viewed separately or all together. You can view the results in any order, and you can move back and forth between the pages by using the "Home," "Previous Page," or "Next Page" buttons.

ILLUSTRATION OF STEPS TO ENTER INFORMATION AND GET RESULTS



NAVIGATING THROUGH THE PAGES



5. UNDERSTANDING THE PROJECTIONS

Assumptions

While users may determine the population size and the category level, some assumptions are constant for all projections. These assumptions are:

1. ***Attack rate***. For example, "30% attack rate." This means that 30% of the population (30 out of every 100 people) will get the illness.

2. *Duration.* These projections are only for the first pandemic wave. While no one can say how long the first wave will last, experts suggest that a duration of 6 to 12 weeks is realistic; this tool assumes an 8 week duration. It is likely that one to two additional waves will occur, but they will probably have a different impact, since there will be partial immunity to the virus, and a vaccine may be available by then.

CLICK ON THE GRAY BOX ON THE HOME PAGE CALLED "VIEW PROJECTIONS"

Let's look at an example of the table of projections that the tool will generate.

Home | Previous Page | Next Page | User Guide

PANDEMIC IMPACT PROJECTIONS	
Assumptions: Resource Poor Country or Highly Vulnerable Population 30% Attack Rate, 8 Week Duration	
La Paloma	
Population Size	50,000
Category	Category 3
Cases (total #)	15,000
# of Cases by Level of Care *	
Level 1 Care	6,000
Level 2 Care	3,750
Level 3 Care	4,500
Level 4 Care	750
Case Fatality Ratio	3.25%
# Deaths	488
Peak week cases	3,000
Peak week deaths	98
*see link to definitions of the levels of care on the main page	

Case: person who gets sick from the illness

There is a link to the definitions of the Levels of Care on the Home Page of the tool.

CASES

The total number of cases is provided as well as the number of cases expected for each of the four levels of healthcare, according to the size of the population and the severity category. If you change the population size or the category, you will see the numbers change.

LEVELS OF HEALTHCARE

Just as all pandemics are not the same, all cases of the influenza in a pandemic are not the same. There are four levels of healthcare, ranging from mild to severe, depending on the severity of the illness. Many pandemic influenza cases probably will be very mild, similar to a seasonal influenza case (Level 1). These people will be able to care for themselves at home and return to work or other activities within one to two weeks. Others will have a very severe form of the illness and may die despite intensive care (Level 4). Following are detailed definitions of the four levels of care:

Level 1: Unassisted Home Care

The Level 1 cases are the mildest cases, and most are expected to recover at home without complications. Level 1 includes both self care and care by a family member or other available caregiver. These cases do not require outside assistance.

Level 2: Assisted Home Care

Level 2 cases are uncomplicated cases that need the assistance of community resources (such as a trained community health worker) for their influenza or for other coexisting illnesses (such as TB or malaria). The most urgent needs of people falling in Level 2 of care probably will be oral hydration (taking liquids by mouth), and the continuation of pharmaceuticals (drugs) or of other treatments for coexisting illnesses. People who require significant assistance with the activities of daily living (such as bathing, doing errands, cleaning, cooking, and securing food) also fit into this level of care.

Level 3: Skilled Clinical Care Needed
Level 3 cases require care of moderate intensity on a daily basis. People who fall within this level may be cared for at home or at an alternate healthcare site in the community. Examples of skilled care include intravenous hydration, intravenous antibiotics, and respiratory treatments.

Level 4: Highest Available Level of Care Needed
These are the most severe cases, and they should be treated in a hospital if one is available. However, in areas with limited resources, these cases are not likely to survive even with the highest available level of care, and may be assigned to ***comfort care*** rather than provided with skilled heath care resources. Policies for Level 4 care should be included in the municipal plan for ***triage***. (See Tool 5, *Triage: Prioritizing Care to Reduce Deaths*).

CASE FATALITY RATIOS AND NUMBER OF DEATHS

The Pandemic Impact Projections table shows the total number of deaths expected according to the expected case fatality ratio in each severity category. Note that the case fatality ratio is different from a ***mortality rate***: While the mortality rate is the percentage of the *total* population who dies from the illness, the case fatality ratio is the proportion of deaths *among the cases. For example, a 2% case fatality ratio means that 2% of all the people who get the illness will die from it. Using our assumption of a 30% attack rate, in a population of 100,000, there will be 30,000 cases. A 2% case fatality ratio would mean that 600 people will die from the illness. (The mortality rate for the entire population would be 0.6 %).*

This tool has been developed to assist resource-poor countries in their planning. The estimates for deaths used are higher than those projected for resource rich countries. Not every country or every local area within a country will experience the same rate of deaths. In fact, there are likely to be very different rates depending on how vulnerable a population is.

For example, a rural area that can grow its own food and is largely self-sufficient will likely experience fewer deaths than an urban, densely crowded and poor area that depends on outside assistance for food, water, and other basic goods.

Municipalities should view all the estimates generated by this tool in the context of their own situation and resources. Some areas may view the projected deaths as a minimum number expected, and others as a maximum number. Others will fall in between. Again, these estimates are only that—estimates—and should be used only as guidance in preparing your municipality. Once specific information is known about a virus, the estimates should be updated with that information. Information on how to generate estimates on your own, without using the tool, is provided at the end of this user guide.

Case fatality ratio: the proportion of people who get the illness (cases) and who die from it.

Mortality rate: the percentage of the total population who dies from the illness.

The case fatality ratios used in the tool are shown in the table below:

CASE FATALITY RATIO (CFR) BY PANDEMIC SEVERITY CATEGORY

Category	CFR
1	0.6%
2	1.23%
3	3.25%
4	7.00%
5	9.10%

TOTAL WAVE VS. PEAK WEEK CASES/DEATHS

Peak week: The worst week of a pandemic wave, when the greatest number of deaths will occur, usually around the fourth or fifth week of an eight-week wave.

The impact of the pandemic will follow a bell-shaped curve (as shown in the charts below), with the greatest impact at the peak of the curve, usually around the fourth or fifth week (if one assumes a wave duration of eight weeks). The peak week is when the highest number of cases and deaths are likely to occur and all resources will be most severely overwhelmed. This is when the greatest number of workers—including doctors and nurses—will be absent from work, and it is also the time of the greatest need for healthcare.

While understanding the total impact of the first wave of the pandemic is important for overall planning purposes, knowing what to expect at the peak of the impact allows municipalities to plan for the maximum resources that may be needed at one time. Thus, planners and responders should set the peak week as their planning goal. This response, extended on either side of the peak, should provide for effective planning.

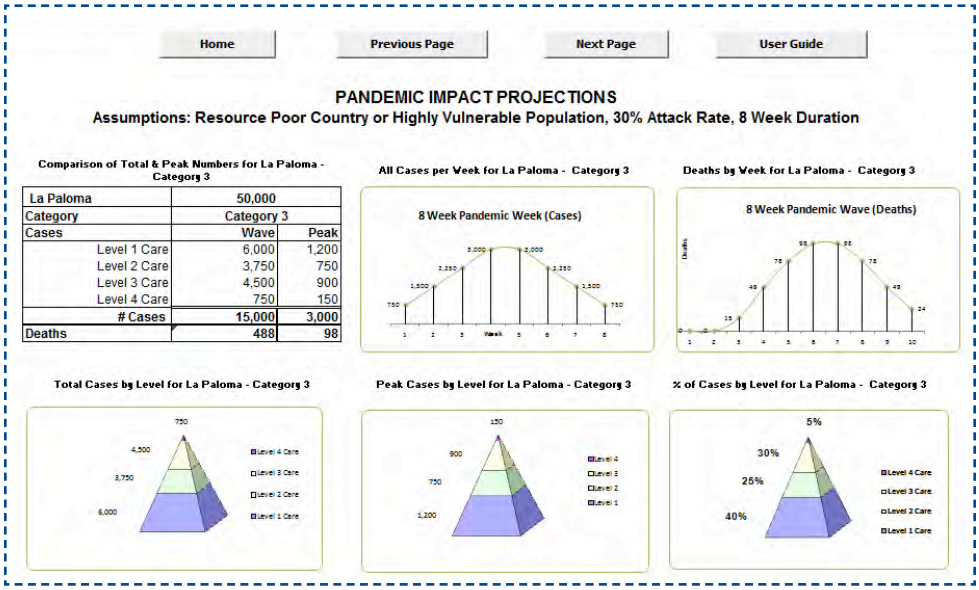
Note: It is very important to always be clear about whether you are using total wave or peak numbers.

Click on the links for the graphics to see another table and several charts that compare the projections for the total number of cases during the entire pandemic wave and during the peak week.

CLICK ON ANY OF THE LINKS CALLED "GRAPHICS"

Let's see what happens when you click on "All Graphics." The information you already entered is used to generate these charts—there is no need to do anything else to get these charts.

For easier viewing, each of these charts also can be selected separately.



Graphic 1: The first graphic is a table comparing the *total and peak week cases and deaths.*

Graphics 2 and 3: These charts show the *week-by-week distribution of the cases and deaths across the pandemic wave.*

> *How to use this information:* This information helps to demonstrate the importance of allocating resources across the duration of the wave. If resources, both human and other, are used up too early in the pandemic, this will result in higher ***morbidity rates*** and mortality rates later on.

Graphics 4 and 5: These charts show the numbers of *total and peak week cases for each level of care.*

> *How to use this information:* Each level of care is dependent on the others—if the cases in Level 2 are not well cared for, some will become Level 3 cases, and so on. These charts highlight the importance of targeting healthcare resources to the cases that can be saved with available care. The goal is to maximize the number of cases at the base of the pyramid and minimize the number at the top of the pyramid.

Graphic 6: The final chart shows the *percentage of cases that are expected to fall into the four levels of care.* While the percentages change according to the pandemic severity category, they are the same for the total number of cases and the peak week number of cases. See Tool 5, *Triage: Prioritizing Care to Reduce Deaths* for more detailed information on how these projections can help you to use your resources to reduce deaths.

WHAT TO DO IF YOU DO CANNOT USE THE EXCEL TOOL

You can perform all the functions of the Excel tool with just a calculator and paper. In the previous examples we used the hypothetical population of La Paloma with a population of 50,000. For each step, the calculator method will be demonstrated.

To calculate the **number of cases** expected, multiply the total populations by the attack rate of .30. **Note:** The projected attack rate for a very mild pandemic, Category 1, is 15%. The attack rate for all other categories (2–5), is 30%.

Example: 50,000 X .30 = 15,000

To calculate the **number of deaths** expected, multiply the number of cases by the case fatality ratio (CFR) assigned to the severity category (see CFR table below). In this case, we have been projecting impacts for a Category 3 pandemic. Therefore, the calculation is 15,000 X **.0325** = 488

CASE FATALITY RATIO (CFR) BY PANDEMIC SEVERITY CATEGORY

Category	CFR
1	0.006
2	.0123
3	**.0325**
4	.07

To calculate the **number of cases in each level of care**, multiply the number of cases by the percentage expected in each level for each severity category (see Level of Care by Pandemic Severity table below).

	Levels of Care by Pandemic Severity				
	1	**2**	**3**	**4**	**5**
LEVEL 1	.50	.45	.40	.32	.25
LEVEL 2	.25	.25	.25	.23	.25
LEVEL 3	.24	.28	**.30**	.34	.36
LEVEL 4	.01	**.02**	.05	.11	**.14**

Examples:

- The number of cases in La Paloma in Level 2 care in a Category 3 pandemic would be 15,000 X .30 = ***4,500***.
- The number of cases in La Paloma in Level 4 care in a Category 2 pandemic would be 15,000 X .02 = ***300***.
- The number of cases in La Paloma in Level 4 care in a Category 5 pandemic would be 15,000 X .14 = ***2,100***.

To calculate the cases and deaths per week, multiply the number of cases (population x attack rate – see the first example above) x the number expected in each week as follows:

	Percent of Cases and Deaths by Week for an 8 Week Wave									
Week	1	2	3	4	5	6	7	8	9	10
Cases	.05	.1	.15	**.2**	.2	.15	.1	.05	0	0
Deaths	0	0	.03	.1	.16	.2	.2.	**.16**	.1	.05

Examples:

- The number of cases expected in La Paloma week 5 in a Category 3 pandemic would be 15,000 X .2 = 3,000
- The number of cases in Level 2 (see previous example) expected in La Paloma week 5 in a Category 3 pandemic would be 4,500 X .2 = 3,000
- The number of deaths expected in La Paloma in week 8 of a Category 3 pandemic would be 488 X .16 = 78.

Using these formulas, you can generate all the projections and create pyramids of care.

DISCLAIMER

This tool is an adaptation of the planning tool FluSurge 2.0, created by the U.S. Centers for Disease Control and Prevention (CDC). While FluSurge generates important pandemic planning information for developed countries, such as numbers of intensive care unit beds and mechanical ventilators needed, this tool has been created to assist municipalities in developing countries to most effectively utilize the resources they have.

The case fatality ratio for resource-poor and highly vulnerable populations, the levels of care, and the percent allocation of cases to the four levels of care used in this tool are based on CDC assumptions for attack rate, case fatality ratio, and hospitalization rate. However, they have been adapted for use in developing countries, urban areas, and other populations that carry greater risk from a pandemic. They are based on the expectation that urban and/or chronically poor populations with high rates of debilitating endemic disease, inadequate healthcare, and food insecurity will experience a greater impact. These are purely theoretical constructs, and while they have undergone review by technical experts, they have not been scientifically validated. Planners are advised to consider the impact projections generated through this tool as guidance for planning until further information or validated assumptions for these populations are identified.

SOURCES

- CDC (U.S. Centers for Disease Control and Prevention). 2009. CDC FluSurge 2.0. www.cdc.gov/flu/tools/flusurge/
- WHO (World Health Organization). 2009. Pandemic influenza preparedness and response: a WHO guidance document.
- WHO (World Health Organization). 2008. Pandemic influenza prevention and mitigation in low resource communities

HEALTH

NON-PHARMACEUTICAL INTERVENTIONS (NPIs): ACTIONS TO LIMIT THE SPREAD OF THE PANDEMIC IN YOUR MUNICIPALITY

PREPAREDNESS

RESPONSE

This tool will help you to:

- Understand non-pharmaceutical interventions (NPIs)
- Use these as strategies to limit the spread of a severe pandemic from person to person
- Learn when and how to implement NPIs in order to reduce deaths

Who will implement this tool:

The health sector will be responsible for advising the mayor and the municipal team on how to limit the spread of the disease, and reduce the number of deaths. However, you the mayor and/or other governmental authorities will be responsible for providing the resources and legal basis to implement the actions that are recommended, and make the necessary declarations that enact and enforce them. The health sector and the mayor will need to work very closely together as the decisions to implement and then discontinue the actions will need to be monitored and communicated on a daily basis. If a national pandemic plan exists, the team should review it to identify the roles of each sector.

WHAT ARE NON-PHARMACEUTICAL INTERVENTIONS?

During a severe pandemic, there are different approaches to limiting the spread of the illness. Pharmaceutical (drug) interventions, such as vaccines and anti-viral medications to prevent the disease or its complications *may not* be available in many areas of the world in sufficient quantities to make a significant contribution toward reducing deaths.

NPIs include both actions that individuals and households can take (e.g. frequent hand washing, covering coughs and sneezes, and keeping a distance from sick people) and ***social distancing policies*** that communities can enact (e.g. closing schools, working from home, restricting public gatherings) that are specifically geared to limiting the spread of a disease that is transmitted from person to person.

NPIs are the most important tool that mayors and municipal leadership teams will have to reduce deaths. Not only will they be available and accessible at the local level, but they are likely to be very effective in limiting the spread of the disease, and reducing the number of deaths. The *Crisis and Emergency Risk Communication* section, Tools 12–14, will give you ideas on how to communicate interventions to the public.

WHY WILL THESE INTERVENTIONS BE NECESSARY?

NPIs will be the best defense a municipality will have against the spread of the pandemic. In fact, the use of these interventions is important even when drugs and vaccines are available, because they can prevent individuals from even being exposed to the disease, decreasing the number of people who will become sick and those who will die. Vaccines take 4–6 months to develop once a new virus is identified, and the global manufacturing capability is limited. For these reasons, it is unlikely that most countries will have a pandemic vaccine available for their populations. Most countries will also not have enough anti-viral medicines to protect their entire population from the disease or treat them if they get sick. Non-pharmaceutical interventions are accessible, affordable, and effective.

HOW DO NON-PHARMACEUTICAL INTERVENTIONS WORK?

These interventions help reduce the impact of a pandemic by achieving the following results:

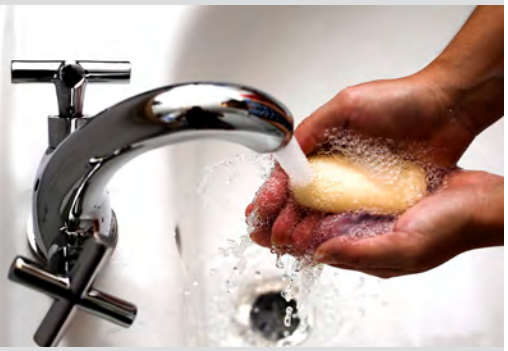
1. Delaying the effects of the pandemic to provide more time for preparedness and response efforts
2. Reducing the number of people who are exposed and then infected
   - Decreasing the number of people who become infected means that fewer people will get sick or die, and that hospitals and doctors will be better able to take care of the sick
3. Fewer sick people means more people will be able to stay on the job, so NPIs also help to keep local businesses and public utilities (such as water, electricity, and transportation) in operation, reducing the number of deaths

WHICH INTERVENTIONS MAY BE NECESSARY DURING A PANDEMIC?

INTERVENTIONS FOR INDIVIDUALS

The pandemic virus will be similar in many ways to a usual, seasonal influenza virus, and the same prevention measures that work for seasonal influenza will also work for the pandemic influenza. This is very good news for municipalities, as it means that the most effective way of controlling the pandemic will be available to all municipalities, and all families within those municipalities.

FOUR IMPORTANT PREVENTION MEASURES ARE:



1. **Wash your hands frequently**

   Why: Good hand-washing practices decrease the amount of virus that may be transmitted when shaking hands or touching surfaces such as door handles and light switches.

   Instructions: Individuals should wash their hands frequently with soap and water. If soap and water are unavailable, alcohol-based hand sanitizers are good substitutes.

   Requirements for success:

   - Broad public education to ensure that the public consistently and correctly washes hands
   - Sufficient access to soap and water, or hand sanitizers

2. **Cover coughs and sneezes**

   Why: Covering a cough or sneeze with a sleeve, tissue or mask prevents the spread of the virus through the air and contamination of the hands.

   Instructions: Individuals should cover their cough by coughing into their sleeves (not their hands) or using tissues. Tissues should be disposed of properly. See the note on mask use below.

   Requirements for success:

   - Broad public education

3. **Keep your distance**

   Why: The virus is spread through large droplets in the air that are breathed out through talking, shouting, coughing, sneezing, and singing. This means influenza spreads most easily when people are close together or in crowded places (like markets and buses). These droplets can travel 1–2 meters so keeping a distance of 1–2 meters from sick people can reduce the likelihood of infection.

   Instructions: Individuals should avoid crowded settings and maintain a distance of 1–2 meters from sick persons. Sick persons should stay home as much as possible and keep a distance from others when out.

   Requirements for success:

   - Broad public education
   - Ability to stay 1–2 meters from others at home, at work, and in the community
   - Cooperation of the public

4. **Separate the sick**

   Why: Isolation of sick people prevents sick people from infecting those who are well.

   Instructions: People with influenza-like symptoms should stay home for the infectious period, approximately 7–10 days after becoming sick. This will usually be in the sick person's home, but could be in the home of a friend or relative. They should not go to work or to markets, or attend public gatherings (such as church services, work meetings, or other events) unless they can stay at least one meter away from all other persons, wear a face mask if available, wash their hands well and often, and cover their coughs and sneezes all the time.

   Special efforts should be made to provide support for people who live alone, and for families in which all the potential caretakers are ill. Isolation should be done on a voluntary basis. However, municipalities should have plans in place to enforce isolation if it becomes necessary.

   Requirements for success:

   - Quickly identifying the person who is sick
   - Providing simple, clear information to those who are sick—and their family members—about when and where to go for medical care and how to safely take care of the sick at home
   - The commitment of employers to allow workers to stay at home when they are sick (see "Social Distancing—Adults at the Workplace" on page 6)

Isolation: Keeping sick people away from others to prevent them from infecting others.

ADDITIONAL RECOMMENDATIONS TO CONSIDER:

Consider a mask, if available

Why: Experts are not sure how helpful masks will be during a pandemic. Wearing a face mask may help lower the chance of catching influenza in certain situations. However, masks don't protect a person as well as the standard prevention measures recommended above. Once the pandemic begins, there will be more information on the use of masks.

Instructions:

- WHO recommends that mask use should be based on risk, including frequency of exposure and closeness of contact with potentially infectious people.
- Practice all the prevention measures whether or not you wear a mask. The danger of masks is they might make people feel safer than they really are, because masks do not provide complete protection against catching influenza.
- If supplies are available, patients and caregivers should be trained to wear and dispose of masks during the infectious period of the patient.
- Where supplies are limited, *it is more important in the home that the patient wears the mask than the caregiver.* The mask need not be worn all day and only when close contact (within approximately 1 meter) with the caregiver or others is anticipated.
- Masks should be disposed of safely if wet with secretions. Tightly-fitting scarves or a reusable mask made of cloth covering the mouth and nose could be used if masks are unavailable. They should be changed if wet and washed with soap and water and dried in the sun.
- If enough masks are available, caregivers should also use them to cover their mouths and noses when in close contact with ill persons.
- Routine mask use in public places should be permitted but is not expected to have an impact on disease prevention.

Requirements for success:

- Broad public education to ensure consistent use of masks
- Sufficient access to masks or cloth

Quarantine family members of those who are sick

Quarantine: Keeping people who may have been exposed to the disease but are not yet sick away from others for a long enough period of time to determine if they are going to get the disease.

Why: Quarantine decreases community transmission by people with one or more family members sick with pandemic influenza. People who are infected with pandemic influenza may be at risk of infecting others even before they start to have symptoms like cough and fever, or before their symptoms become severe. Because quarantine is very difficult for people to comply with, and has many economic and social consequences, it is generally only used in severe pandemics.

Instructions:

- Family members (or others) living in the same home as those who are sick should stay home for 7 days (voluntary quarantine) from the day that the first sick person begins to have symptoms.
- If other family members become sick during this 7-day period, all family members who have not been sick should stay home (voluntary quarantine) for another 7 days from the time that the last family member becomes sick. If a family member who was sick has recovered and has stayed at home for at least 7 days since they became sick, they can leave the house if they feel well enough.
- Once the quarantine period passes, it is safe for individuals to resume their usual activities.
- If an individual develops signs of the disease during the quarantine period, the person should be isolated (see the section on separating those who are sick, on page 3).

Requirements for success:

- The quick and accurate identification of the first person in the family to be sick
- Voluntary compliance with quarantine by family members or others living in the same home with the person who is sick
- The commitment of employers to allow workers to stay home when they are sick (see "Social Distancing—Adults at the Workplace" on page 6)
- Providing simple, clear information to those who are sick—and their family members— about when and where to go for medical care and how to safely take care of the sick at home
- A plan for providing support to families under voluntary quarantine, such as ensuring the delivery of food and medicine

INTERVENTIONS AT THE COMMUNITY LEVEL: SOCIAL DISTANCING

CHILD SOCIAL DISTANCING

Close schools and childcare facilities

Why: Influenza can easily travel through childcare facilities and schools because children tend to spread germs more rapidly than adults. Closing schools and childcare facilities protects children by decreasing the spread of the disease among them, and also dramatically decreases the risk of children bringing the disease home or infecting other members of the community.

Instructions: Depending on the severity of the pandemic, authorized government officials may need to close schools and childcare facilities to limit the spread of the disease.

Requirements for success:

- Depending on the situation in your country, the central government may make the decision about whether or not to close schools, or they may leave it up to the local areas. Refer to your national and district plans, if available, and develop your plans to include both possibilities.
- The consistent implementation of closings among all schools in the municipality
- Providing families with alternative options for their children's education
- A plan to ensure that children who are usually fed at school still get enough food at home
- A plan to ensure that parents and other caretakers can stay home from work to care for their children
- Communication to parents that when schools close children must stay home and limit their contacts with others to the greatest degree possible. Allowing children to play together or congregate socially while the schools are closed will counteract the effect of closing the schools.
- If group care of young children is needed and available to allow parents to continue to work, the groups should be restricted to the number of children that the caregiver(s) can keep separated, or isolated if they get sick.

Social distancing policies: Actions that communities and workplaces can take to decrease the amount of contact among people in order to reduce the likelihood of person-to-person spread of an infectious disease like influenza.

Decrease children's social contacts outside of school

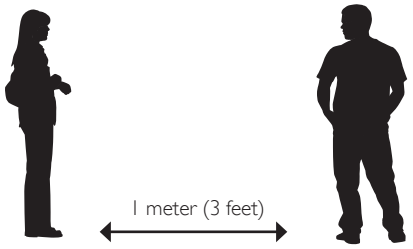
Why: Limited social contact protects children by decreasing the spread of the disease among them, and decreases the risk of introducing the disease into homes and the community at large.

Instructions: Parents should decrease children's social contacts outside of school as much as possible.

Requirements for success:

- The commitment of parents and the municipality to keep children from gathering outside of school
- A commitment to keep childcare groups (at home) to a safe number

SOCIAL DISTANCING—ADULTS AT THE WORKPLACE



Keep workers separated

Why: These measures reduce the spread of the disease within the workplace, provide a less contagious workplace, and give people confidence in the cleanliness of their workplace. They also limit the disruption of business and help maintain ***essential services.***

Instructions: Employers should consider the following social distancing policies to keep healthy adults working while keeping them apart from each other as much as possible.

- Allow and encourage sick employees to stay home.
- Have employees work from home as much as possible.
- Hold conference calls instead of face-to-face meetings.
- Separate peoples' desks, leaving at least one meter between each desk, and discourage close contact.
- Modify work schedules to allow for day, evening, and night shifts.

Requirements for success:

- The commitment of employers
- The cooperation of employees

SOCIAL DISTANCING—ADULTS IN THE COMMUNITY

Cancel or postpone large public gatherings

Why: Limiting the congregation of large groups reduces community transmission of the virus and thus slows or limits spread of the disease.

Instructions: Cancel or postpone large public gatherings (such as concerts, theater showings, and funerals). Depending on the religious beliefs of the community, rather than closing places of worship altogether, the community may want to limit the number of people attending services at any given time, or provide masks and soap and water to those who do attend, and encourage hand washing.

Requirements for success:

- The support of political leaders
- Public support
- A plan for the ***public safety sector*** (police, military, or civil defense) to assist, if necessary, in the enforcement of this intervention

Arrange for home delivery of food, medications, and other goods

Why: Delivering necessities directly to homes helps prevent gatherings at markets and other public places and, therefore, reduces spread of the disease.

Instructions: Arrange for the delivery of food, medications, and other goods to homes. If that is not possible, use smaller distribution sites with staggered pick-up times to prevent crowds from gathering. (For more information, see Tool 11, *Distribution of Emergency Food during an Influenza Pandemic*.)

Requirements for success:

- The support of political leaders
- Public support
- A plan for the public safety sector to assist, if necessary, in the enforcement of this intervention

WHEN SHOULD YOU START NON-PHARMACEUTICAL INTERVENTIONS?

To effectively reduce deaths, the timing of NPIs is essential. As a general rule, it is best to wait to start them until there is a "cluster of cases" of severe disease in the municipality.

While individual interventions are always recommended, the use of community-level social distancing policies may result in more people out of work and economic losses to the community and should only be used when needed. Closing of businesses, such as restaurants, as part of a policy to prevent public gatherings, will cause some people to lose their income and may also result in other economic costs, such as decreased tourism. Therefore, it is very important to use these measures when they are needed, but, at the same time, to avoid using them if they are not indicated.

Cluster of cases: Several cases of disease from the same virus in more than one home.

There may be the need to make a decision about closing schools and some businesses before the world has a lot of specific information on the pandemic virus. While it is better to take preventive measures than not, local authorities should be ready to change a policy and re-open schools and businesses if the virus does not appear to be very serious. *Every day in a severe pandemic will be a balancing act between taking actions to limit spread, and paying the price for having done so.* It is, therefore, recommended that municipal policy makers and those with the authority to make these decisions develop local plans for use of social distancing policies that can adapt to a changing situation.

Example: Soon after the H1N1 virus emerged in the spring of 2009, it was recommended that schools in the United States close if they had a single suspect case of the influenza. This was recommended because of the early report of many deaths in Mexico and a fear that the virus was severe. However, once it became clear over time that the virus was a mild one, the recommendation to close schools was reversed. Those schools that closed in the early days of the H1N1 pandemic reported economic, social, and educational consequences.

While each situation will vary, leaders will need to adapt the plan to the characteristics of each municipality and the local situation. The plan should also consider the severity of the virus. The section, "Which Interventions Should Be Used" (on page 9), provides guidance on this.

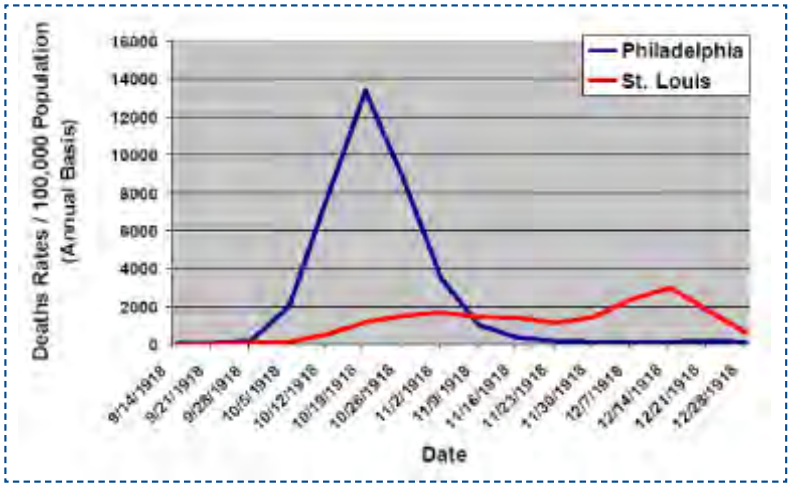
If the decision is made to use social distancing measures, *start implementing interventions immediately.* Listen and watch for national and international recommendations. However, be prepared to act based on information from the local municipality.

Implementing social distancing policies too early—before the pandemic has reached the area—or using them when the severity of the virus does not warrant their use, may result in unnecessary economic and social hardship without benefit to the public's health.

Please note that it will be *too early* to start the community-level interventions if there are no cases in the local area. The plan should use a trigger based on the presence of local cases, not when a pandemic is present elsewhere in the world but has not yet impacted the local area.

On the other hand, policies that are started too late may not prove to be effective in reducing deaths. The chart below shows data from the 1918 pandemic from two cities in the United States. The number of deaths in these two cities differed significantly, with Philadelphia having more deaths and a large peak early on and St. Louis having many fewer deaths. The data suggest that the difference may be due to St. Louis initiating community measures early, when only 2.2% of the people in the city were sick. In contrast, Philadelphia didn't institute them until 10.8% of the people were sick with the pandemic influenza, and also chose to hold a large public parade, bringing many people together.

1918 DEATH RATES: PHILADELPHIA VS. ST. LOUIS



Collins SD, Frost WH, Gover M, Sydenstricker: *Mortality from influenza and pneumonia in the 50 largest cities in the United States.* First Edition Washington: U.S. Government Printing Office. 1930.

WHICH INTERVENTIONS SHOULD BE USED?

No single NPI is sufficient on its own to limit the spread of a pandemic. It is most effective to use individual-level and community-level interventions together. Non-pharmaceutical interventions can also be used together with vaccines and anti-viral drugs, if these are available.

As discussed in the previous section, selecting which social distancing measures to use will depend on the severity of the pandemic. Again, H1N1 has taught us that it can be very difficult to know the severity of a virus when it is just emerging. Therefore, there is likely to be confusion and uncertainty about the severity of the disease and whether or not some of the measures should be used.

The individual-level NPIs should always be used. In fact, these are important for a number of communicable diseases that occur every day, such as diarrheal illnesses and other respiratory illnesses. It is good pandemic preparedness, and good disease prevention policy in general, to educate the public about the importance of:

- Frequent hand washing
- Covering coughs and sneezes
- Keeping distance from others
- Separating sick people

However, the use of the social distancing policies in the community and workplace can result in public fear, inconvenience, and loss of income. These are the ones that should be used only when needed, but used as early as possible when they are needed.

We will not know the severity of the pandemic until sometime after a pandemic virus emerges. For example, the period of time that schools may need to be closed will vary with the severity category of the pandemic. If the pandemic is mild, no schools should be closed. If the pandemic is of moderate severity, schools may need to be closed for up to 4 weeks. For a severe pandemic, schools may need to be closed for up to 12 weeks.

Note: For planning purposes, the recommendation is to be prepared for the worst (that is, for a severe pandemic).

The table on page 10 presents three possible scenarios—mild, moderate, and severe pandemics—and makes recommendations for the use of some NPIs as examples in a variety of settings.

RECOMMENDATIONS FOR USE OF NPIs BY PANDEMIC SEVERITY

Setting: Intervention	**Pandemic Severity**		
	Mild	**Moderate**	**Severe**
Home:			
Isolation of sick people	Recommended	Recommended	Recommended
Quarantine of family members of sick people	Generally not recommended	Consider	Recommended
School:			
Close schools and childcare facilities	Generally not recommended	Consider (for a duration of up to 4 weeks)	Recommended (for a duration of up to 12 weeks)
Decrease children's social contacts outside of school	Generally not recommended	Consider (for a duration of up to 4 weeks)	Recommended (for a duration of up to 12 weeks)
Workplace:			
Hold conference calls instead of face-to-face meetings	Generally not recommended	Consider	Recommended
Modify work schedules Have employees work from home	Generally not recommended	Consider	Recommended
Community:			
Cancel or postpone large public gatherings	Generally not recommended	Consider	Recommended
Increase distance between persons	Generally not recommended	Consider	Recommended

WHAT ARE THE POTENTIALLY NEGATIVE CONSEQUENCES OF NON-PHARMACEUTICAL INTERVENTIONS?

As noted previously, the effective use of NPIs may result in a dramatic reduction in the number of cases of influenza, the number of deaths from it, and the overall burden on the health sector and the entire municipality. But there are negative as well as positive consequences to be considered when implementing these interventions.

Following are some of the negative consequences of these interventions which should be taken into consideration before planning to carry them out:

1. **Economic hardship.** Persons who have been quarantined, for example, may not be able to work from home and may therefore lose pay. Parents may need to stay home from work or pay for childcare when schools are closed.
2. **Social hardship.** People may not have access to their normal social support systems (such as church services and social events) and may therefore experience the effects of social isolation.
3. **Inadequate public compliance.** It may be difficult for people to comply with prolonged interventions due to the hardships noted above as well as other hardships. Enforcing community interventions may require the services of the police or other officials.
4. **Limited public health benefits.** If interventions are not started early enough, are ended too soon, or are not properly enforced, they may not have the desired public health benefits.

SOURCES

- CDC (U.S. Centers for Disease Control and Prevention). 2007. *Interim Pre-Pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States.* http://pandemicflu.gov/plan/community/community_mitigation.pdf
- WHO (World Health Organization). 2009. *Pandemic influenza preparedness and response: a WHO guidance document.* www.who.int/csr/disease/influenza/PIPGuidance09.pdf
- WHO (World Health Organization). 2008. *Pandemic influenza prevention and mitigation in low resource communities.* www.wpro.who.int/NR/rdonlyres/9274FF90.../0/options_ph.pdf
- Cetron, M., and C. Mecher. 2006. *The Role of Community-Wide Mitigation Strategies in Pandemic Planning.* Presented at the Education Association Outreach Meetings, September 21. www.mcneese.edu/it/pandemic_planning.ppt#277,1
- Low, D. 2008. Pandemic planning: Non-pharmaceutical interventions. *Respirology* 2008: 13: S44-48.
- Markel, H., A.M. Stern, J.A. Navarro, J.R. Michalsen, A.S. Monto, and C. DiGiovanni. 2006. Nonpharmaceutical Influenza Mitigation Strategies, U.S. Communities, 1918–1920 Pandemic. *Emerging Infectious Diseases* 12(12). www.cdc.gov/ncidod/EID/vol12no12/06-0506.htm (accessed March 19, 2009).
- Presentations from the CDC. *Stakeholders Meeting on Community Mitigation of Pandemic Influenza*, Atlanta, Georgia. 2006.

TRIAGE: PRIORITIZING CARE TO REDUCE DEATHS

PREPAREDNESS

RESPONSE

RECOVERY

This tool will help you to:

- Understand healthcare triage and the roles of municipal authorities and healthcare providers in triage
- Use your healthcare resources to save the greatest number of lives
- Plan for triage in your municipality based on four levels of care

Who will implement this tool:

- The mayor and the ***municipal leadership team***
- Hospitals and healthcare providers
- Those already in charge of disaster triage planning and protocols
- Community healthcare organizations and volunteers

WHAT IS TRIAGE AND WHY IS IT NEEDED?

Ideally, the first people to need medical care receive it. In less than ideal conditions, somebody has to decide who receives care first. Some health facilities face these decisions on a daily basis, even without any disaster or health emergency. However, natural disasters (e.g., earthquakes) or other events (e.g., train crash or bombing) can result in a large number of injured or sick people at one time. When this happens, decisions must be made about how to best allocate care when resources are insufficient for all those who need care. This process is called ***triage***.

The purpose of triage is to save as many lives as possible. During a severe pandemic, you can expect that the period of time when the need for care will be greater than the resources available will last for weeks or months. Using scarce medical resources to provide care for patients who may be very sick, but who will probably die even with intensive care, may result in other less sick patients not receiving care, getting sicker, and dying. When done properly, triage results in the best outcome for the greatest number of people. *Without a triage plan in place, resources are likely to be wasted—and more people are likely to die.* Therefore, it is important that your municipality develop a pandemic triage plan.

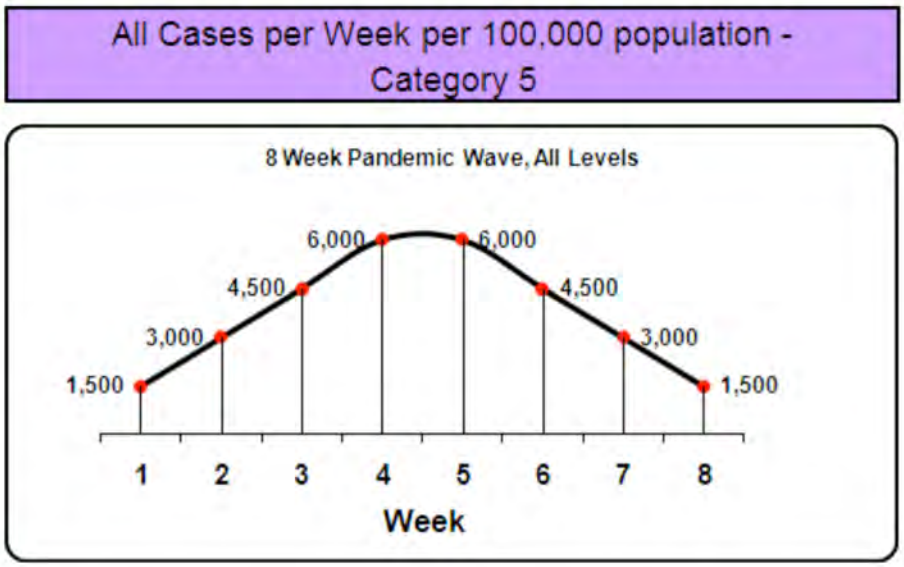
It is very important for you to determine in advance who will have the authority to implement the triage plan. The need for triage is likely to change rapidly and frequently during the pandemic wave, as the epidemic escalates to its peak and then begins to subside. The person or group responsible for the triage planning will need to consider the need for healthcare resources and the availability of those resources on a daily basis, then communicate to the healthcare providers the appropriate triage plan. In situations where sick patients cannot be cared for and the public panics or violently protests the decisionmaking, you may need security forces to protect healthcare facilities and providers.

Figure 1 is a graph from Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic* that shows the number of cases that would be expected in a population of 100,000 people during a severe pandemic. During the early and late phases of the pandemic wave, there will be fewer cases at any one time. However, during the middle part of the wave, the largest number will need care at the same time. This is referred to as the *peak period* of the pandemic. There may be some places where health facilities and communities are able to cope with providing care during the early and late phases, but are overwhelmed at the peak of the wave and need to implement triage strategies. Other places may be quickly overwhelmed and need triage throughout the wave.

STEPS YOUR MUNICIPAL LEADERSHIP TEAM CAN TAKE BEFORE THE PANDEMIC TO ENSURE TIMELY TRIAGE PLANNING INCLUDE:

- Identify any existing triage plans and protocols.
- Delegate authority for triage policy to an individual or a sector.
- Conduct a baseline assessment of all healthcare resources: beds, supplies and medications, healthcare providers, and volunteers.
- Coordinate preparedness planning to increase stocks of medications (for both pandemic and non-pandemic illness) and general medical supplies.
- Create data collection forms you can use to compile daily counts of patients needing care, and to assess the current level of available resources.
- Develop a communication plan you can use to inform healthcare providers and volunteers about the current triage plan.
- Develop a security plan for healthcare facilities.

FIGURE 1: THE NUMBER OF CASES EXPECTED PER WEEK FOR A POPULATION OF 100,000 IN A SEVERE PANDEMIC



NOTE: As with all projections *generated by the Pandemic Health Impact Projection Tool, these are* estimates based on a number of assumptions. These projections are for planning, not to predict actual numbers.

THE ROLE OF MUNICIPAL AUTHORITIES

Mayors and their municipal leadership teams are responsible for the well-being of their populations. Therefore, you will be expected to take actions to reduce deaths during a severe pandemic. Part of this responsibility will involve decreasing deaths through an effective triage plan.

The mayor should rely on the health sector to develop triage protocols and standards and ultimately to create a triage plan that is based on the anticipated needs of the population and the municipality's available resources. However, the municipal government will need to support the health sector plan, provide the necessary resources, ensure a legal basis to implement it, and address public information and concerns. (See Tool 15, *Disaster Management in a Pandemic*.)

Municipal authorities should also be aware that alternative community care centers may be needed to provide additional access to medical care when hospitals and other health facilities are full. These may be set up in closed schools, churches, or other buildings that are converted to serve as makeshift hospitals, with community health workers and other volunteers providing most of the care following brief training. (For more information, see Tool 6, *Training for Community Health Responders* and Tool 17, *Volunteer Coordination*.)

A legal basis for the use of triage may already exist at a central, regional, or local level. If not, you should refer to your national pandemic plan for guidance, then work with health sector leaders to develop one. It should not be communicated to the public before it is needed to avoid undue concern, but it is important to have justification ready as there will not be the time to research when triage is needed.

As with other aspects of disaster response, effective triage will require the public to be calm and cooperative, which in turn is dependent on strong municipal leadership and effective public communication. Municipal authorities must be able to explain triage and why it is necessary to the community. You will also need to know whether and why alternative community care centers are needed, where they are located, and how to access them so that this information can be provided to the public and other authorities. This will be

critical both in helping to prevent health services from being overloaded and in reassuring the public to avoid the possible panic a pandemic naturally generates. (For more information, see Tools 12–14 in the section *Crisis and Emergency Risk Communications*.)

THE ROLE OF HOSPITALS AND HEALTHCARE PROVIDERS

Hospitals and other healthcare facilities will face a number of challenges during a severe pandemic. They will need to provide care to a much greater number of patients than normal during a time when they will experience high rates of worker absenteeism. Hospital employees may be ill, or may need to care for sick family members or children whose schools have closed. Therefore, at the very same time that the number of people needing care increases, the number of people available to provide that care will decrease.

Hospitals will need to protect both staff and the other patients from the pandemic, so providing separate treatment areas with separate care providers for influenza patients may be necessary. It is very important to *remember that the non-pandemic needs for hospital-level care will continue during the pandemic,* and may include births, heart attacks, car accidents, and other infectious diseases (e.g., pneumonias, diarrheal diseases, malaria, and tuberculosis). Hospitals must therefore prepare to increase their resources to surge capacity in order to continue to care for those who need it most. At all times, municipalities should plan to provide the highest level of care available to all pandemic and non-pandemic patients. However, as the number of sick people overwhelms available resources, healthcare providers will need to allocate care efficiently. For all of these reasons, during a severe pandemic *only the very sickest patients who are likely to survive with hospital-level care should be admitted to health facilities.* All other cases will need to be cared for outside of the usual healthcare system, at home, or in alternative community care centers.

STEPS TO AN EFFECTIVE TRIAGE PLAN

STEP 1: UNDERSTAND THE HEALTH IMPACT OF A PANDEMIC ON THE POPULATION

Understanding what the impact of a pandemic will be on the population is the first step in planning how to use resources to decrease deaths. The reality of what may be needed in a municipality during a severe pandemic must be seen clearly before developing the needed plan. It is highly recommended that you begin this process by using Tool 3, *Pandemic Health Impact Projection Tool* and its *User Guide.* The tool will generate an estimate of the number of cases and deaths projected in a municipality. Please refer to this tool to fill in the boxes below:

Name of Population (e.g., city, neighborhood, employees):		
Population Size		
Severity Level		
Total # Cases		
Peak Week Cases (total)		
Peak Week Cases by Level of Care	Peak Week Level 1 Care	
	Peak Week Level 2 Care	
	Peak Week Level 3 Care	
	Peak Week Level 4 Care	

STEP 2: PLAN FOR THE PEAK

It is best to plan your triage for the time when the pandemic will cause the greatest number of cases, or the ***peak week***. As the graph presented earlier showed, the pandemic is expected to follow a typical bell-shaped curve, starting at a baseline and increasing to a peak number of cases mid-wave before decreasing back down to baseline over a period of 6–12 weeks. During the peak week, the greatest number of people will be sick at one time, and, simultaneously, the number of healthcare providers that are unable to work will be at its highest level. In addition, supply chain shortages of goods and medications will be the most likely at this time. Therefore, the peak period of the pandemic wave is the time when triage planning will be most needed.

(For more information, see Tool 3, *Pandemic Health Impact Projection Tool*.)

STEP 3: IDENTIFY AND DESCRIBE ALL HEALTHCARE RESOURCES

Before planning the triage system for your municipality, make a complete inventory of all available resources. *Triage should only be used as last resort* when healthcare resources are overwhelmed and unable to respond to all that need immediate care. Triage is needed when the balance of need outweighs availability. This balance will change on a daily basis in a pandemic. At the start of the wave, there may not be a need for triage. As more people get sick and supplies and human resources decrease, the time will come to implement triage. As cases begin to decline post-peak, there will be a time when triage can be suspended. Therefore, it is important that you develop a plan to assess and track the availability of resources prior to, during, and after the peak of the pandemic wave. Resource tracking should include:

- Human resources: This should include the people involved in patient care, community education and disease prevention, transport of patients, and logistics and support personnel needed for health facility, community, and household level care. Consider all skilled and unskilled healthcare providers (doctors, nurses, technicians, and pharmacists, as well as trained and untrained volunteers).
- Logistics: Medical supplies, such as masks, gloves, oral and intravenous fluids, and medications (antibiotics, antipyretics, antivirals, hand washing gels, and soap); non-medical supplies such as gasoline, electricity, communication devices, clerical support, etc.
- Financial resources
- Community resources for alternate care sites and staffing
- In addition, the plan should include the names and contact information for those who will be responsible for implementing the plan (both from the health sector and the municipal government).

STEP 4: GENERATE SEVERITY-BASED PYRAMIDS OF CARE

Figure 2 on page 6 is a *pyramid of care* graph from Tool 3, *Pandemic Health Impact Projection Tool*. It is useful in developing a triage plan. *All municipalities should generate and plan for a pyramid of care during a severe pandemic,* and it may be useful to review the pyramids of care for mild and moderate pandemics as well. You can use the Tool's severity drop-down menu to select a severity category, and then click on graphic #5 ("Peak Week Cases by Level of Care"). The pyramids of care can be copied and pasted into a document and/or printed out on paper.

LEVELS OF HEALTHCARE

The pyramid of care gives an approximation of the number of cases that will fall into each of four levels of care. Just as all pandemics are not the same, all cases of influenza in a pandemic are not the same. There are four levels of healthcare patients may need, ranging from mild to severe, depending on the severity of the disease. Many pandemic influenza cases will be very mild, similar to a seasonal influenza case (level 1). These people will be able to care for themselves at home and return to work or other activities within one to two weeks. Others will have a very severe form of the illness and may die despite intensive care (level 4). Following are detailed definitions of the four levels of care:

Level 1: Unassisted Home Care
The level 1 cases are the mildest cases, and most are expected to recover at home without complications. Level 1 includes both self care and care by a family member or other available caregiver. These cases do not require outside assistance.

Level 2: Assisted Home Care
Level 2 cases are uncomplicated cases that need the assistance of community resources (such as a trained community health worker) for their influenza or for other illnesses (such as TB or malaria). The most urgent needs of people falling into level 2 of care probably will be oral hydration (taking liquids by mouth), and the continuation of medications or other treatments for coexisting illnesses. People who require significant assistance with the activities of daily living (such as bathing, doing errands, cleaning, cooking, and securing food) also fit into this level of care.

Level 3: Skilled Clinical Care Needed
Level 3 cases require care of moderate intensity by a clinically-trained provider. People who fall into this level may be cared for at home or at an alternate healthcare site in the community. Examples of skilled care include examination to see if pneumonia is developing, intravenous hydration, intravenous antibiotics, and respiratory treatments.

Level 4: Highest Available Level of Care Needed
These are the most severe cases, and they should be treated in a hospital if one is available. However, in areas with limited resources, these cases are not likely to survive even with the highest available level of care, and may be assigned to ***comfort care*** rather than provided with skilled healthcare resources. Policies for level 4 care should be included in the municipal plan for triage.

Examples: The following figures illustrate the pyramid of care. Figure 2 shows the percent of cases that are expected to be in each level of care in a severe pandemic. Figure 3 shows the pyramid of care for the same population of 100,000 that we used in Figure 2. This is based on an estimate that there would be 6,000 cases a week during the peak of the pandemic wave. This pyramid takes those 6,000 cases and estimates how many will be mild, how many will be very ill, and how many will fall between those extremes.

FIGURE 2: PERCENT ALLOCATION OF CASES PER LEVEL OF CARE IN A SEVERE PANDEMIC

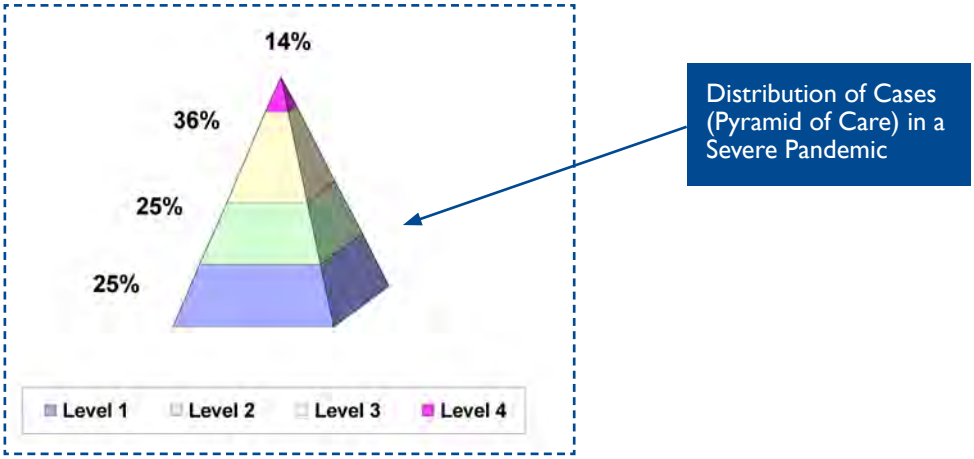
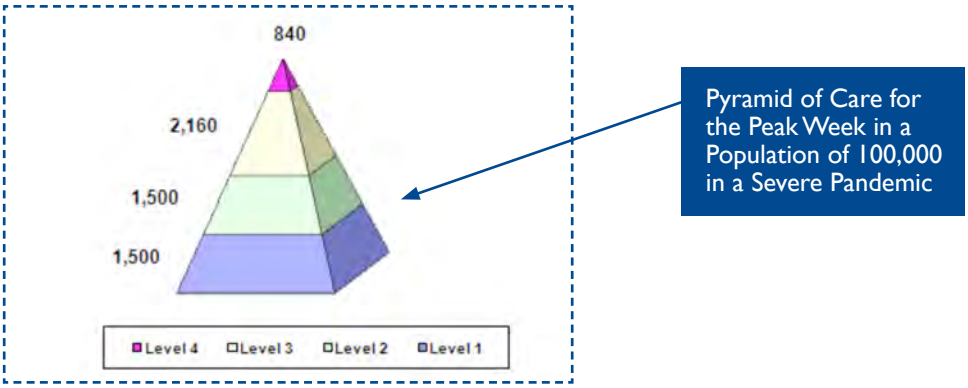


FIGURE 3: PYRAMID OF CARE SHOWING NUMBER OF CASES PER LEVEL OF CARE FOR A POPULATION OF 100,000 IN A SEVERE PANDEMIC



STEP 5: ALLOCATE RESOURCES ACCORDING TO THE LEVELS OF CARE

Using these tools will provide a projection as to how many sick people will need care during the peak week of the pandemic. With this information, you can compare the need for care with the resources available, and develop a plan to reduce the number of deaths based on the levels of care outlined above.

Because the use of triage assumes that healthcare resources are insufficient or overwhelmed, municipalities will need to plan to provide as much care as possible to patients in their homes. Many patients will have a mild form of the disease and will be able to care for themselves. Others may need the assistance of a family member or community volunteer to provide non-skilled care to prevent dehydration and to assist with eating and other activities. Some will need more skilled care at home—perhaps an examination to see if pneumonia is developing, or if short-term intravenous fluids for hydration or other care is necessary. Finally, some patients will need continuous

observation or highly skilled care but will be unable to enter a hospital because the hospitals will not have room. You should develop plans to care for these patients in community care centers. Those who are very ill but are not likely to survive should be triaged into comfort care only—in other words, these patients should be kept as comfortable as possible, without the use of life-extending treatment. Below are suggestions for planning the allocation of resources to each level:

- **Level 1 Care:** No resources should be allocated for these patients. These patients will have a mild form of the disease and will recover quickly without any assistance. Dedicating resources to level 1 patients during a time when resources are overwhelmed will reduce the care available to those that need it for survival.
- **Level 2 Care:** These patients are well enough to remain at home, but they need some care or assistance. They may need deliveries of food or medications for non-pandemic illness, such as malaria or diabetes, assistance with oral hydration for their pandemic diseases, clinical assessment to ensure their influenza is not advancing to a higher level of care, or help with general nutrition, hygiene, or other daily activities. The objective of providing care to level 2 patients is to keep them as healthy as possible. These patients should be able to survive the pandemic with minimal assistance. It is recommended that the least-skilled personnel, such as community volunteers, be used to provide this care.
- **Level 3 Care:** This is the most difficult level of care for municipalities to provide. These patients have a serious form of the pandemic influenza, and could die if care is not provided. The most frequent and important care that will be needed is intravenous hydration and antibiotics. Skilled care providers should be used for these patients. However, you should plan for alternate community sites of care for these patients in order to maximize the use of the skilled personnel. Schools and other municipal buildings that are used as shelters in other types of disasters could be used as alternate care sites (shelters are not recommended for the general public in a pandemic as they could lead to an increase in the spread of the disease).

  Example: A nurse sent to a patient's home to administer intravenous hydration would require many hours of the nurse's time to care for just one patient. Municipalities should identify a site or sites where a number of these patients could be cared for. A single nurse could provide intravenous hydration to many patients in the same amount of time it would take to care for a single patient in their home. This is a much more efficient use of the nurse, and will result in many more lives saved.
- **Level 4 Care:** While level 4 patients are those that would normally be cared for in a hospital if resources were available, many will likely die of the disease at home without ever reaching a healthcare facility. In fact, the municipal triage plan for level 4 should assume that there will not be room for the vast majority of these patients in health facilities, and decisions around referring patients for the highest available care should be based on the likelihood that the patient can survive the disease. Those level 4 patients that are almost sure to die even with the highest level of available care should be triaged to comfort care at home or at an alternate community site of care (where they may receive mental health support, pain control, child care, grief counseling, etc.). Again, it is important to re-assess the availability of care on a frequent basis. As the number of pandemic cases declines post-peak, more patients will be able to be referred for facility-based care.

STEP 6: REMEMBER THESE KEY CONCEPTS

As we have seen, the degree to which people are sick with influenza in your municipality will vary widely. For some patients, the disease will be very mild; for others, it will be rapidly fatal. Tool 3, *Pandemic Health Impact Projection Tool*, provides a graph that shows what the distribution of cases will be for the four levels of care during mild, moderate, and severe pandemics. As with all pandemic projections, these are just estimates for use in planning and are based on assumptions that may or may not occur in an actual pandemic. Triage planning uses key concepts of care.
While the estimated demands on municipal healthcare resources may not turn out to be completely accurate, the rationale and policies of the triage strategy will remain the same. Remember these concepts in the plan for your municipality.

- **Triage will be necessary in a severe pandemic.**

  No country in the world will have sufficient resources to care for all the patients that will need care in a severe pandemic. Not all deaths will be preventable, and not all sick patients will receive needed care. The goal of pandemic triage is to save as many lives as possible within the context of insufficient resources.

- **Triage will save lives.**

  Triage is not about withholding care from patients, it is about providing the best care to the greatest number of people. This means providing the appropriate level of care. The objective of medical care in a pandemic, when all resources are overwhelmed, is to ensure that patients with *survivable illness* are provided with the care and assistance they need. Some of the patients with the *most severe form of the disease* will probably die even with the highest level of available resources; therefore, in a situation where there are insufficient resources to care for all patients, resources are best used to care for persons who can survive.

  Patients who are very ill should be admitted to hospitals and provided with the highest level of care available, but only when the resources dedicated to them do not impair the ability to continue providing care to patients at lower levels of care. In the end, the decisions about which of the very ill patients should be admitted to hospitals, provided care in a community site, or provided the highest degree of comfort care that is possible, cannot be determined in advance since those decisions will depend on the constantly changing balance of needs and available resources.

  Example: Allow level 1 patients to take care of themselves at home without assistance, and provide comfort care only to a terminal level 4 patient. Both of these actions provide appropriate care to the individuals, while reserving scarce resources to take care of other patients that may not survive without them.

- **The levels of care are fluid and interdependent.**

  Keep in mind that the number of patients at one level of care will impact the number at the other levels. People with milder disease—those in level 1, at the bottom of the pyramid in Figure 2—will probably be able to survive the pandemic with minimal assistance. Even most of those in levels 2 and 3 will probably survive if they are able to access the care they need. However, a patient may begin with a mild case of the influenza (level 1), but then become dehydrated and move up the pyramid to level 2. They may then develop a secondary bacterial pneumonia and become very ill (level 3). Another person may begin their illness with a rapidly progressive severe form of the illness (level 4) but recover and progress down the pyramid to full recovery. *This ability to move up and down the*

pyramid has implications for triage planning. The pyramids of care generated for your municipality are useful to begin your planning. However, during a severe pandemic, you may find that more patients than expected may be in levels 3 and 4. This could be a result of characteristics of the virus that are different from the basic assumptions used in the *Pandemic Health Impact Projection Tool*. Or it may indicate a need to change your triage planning. Because patients can move up or down the pyramid of care, these levels are interdependent. In many cases, the ability to provide care to level 2 and level 3 patients will determine their fate. Municipalities that can maximize the care provided to patients requiring lower levels of care will be able to prevent many deaths. However, if access to care is not available to patients at the lower levels of care, some of them will probably become more ill and will add to the number of people needing a higher level of care. In other words, a level 2 case may become a level 3 case.

Example: Level 2 patients that are slightly dehydrated may need the assistance of a volunteer to sit with them and ensure they take in fluids, and maintain their nutritional status. This does not require a skilled healthcare provider, but it does require sufficient family members or community volunteers who are able and willing to do this. If these resources do not exist, some of these patients will become more dehydrated and more ill, and will move up to level 3 and require intravenous hydration and skilled care—resources that are even more difficult to provide. The same patient with good level 2 care will likely move down to level 1 and no longer require any care at all.

This example highlights the importance of good triage implementation. In this case, if level 2 patients are progressing to level 3, rather than to level 1, a reallocation of resources should focus on level 2. If level 1 and level 2 are being well taken care of, then you should focus on how to improve care to level 3 patients.

- **Build the base.**

  The best situation for a municipality is to have as many patients as possible capable of taking care of themselves. There are many steps in preparing and responding to a pandemic that can help build self-sufficiency. This includes good government planning and preparedness at all levels, household-level preparedness, good public information and education, the effective use of social distancing, and many other aspects of pandemic response. However, in terms of the ability to provide care to sick patients, this means having as many of the sick patients in level 1, the base of the pyramid, as possible.

  Although ultimately some of the deaths from the pandemic may not be preventable, the goal of municipal-level access to care should be to minimize preventable pandemic deaths. This is best accomplished by using available resources to push as many cases as possible to the base of the pyramid, and to prevent cases from moving up the pyramid. In other words, care should be allocated to maintain the greatest number of patients at the lowest level of care. Reducing deaths during a pandemic will translate to saving as many lives as are savable, and not expending resources on those that are not savable. By using your resources to build the base of the pyramid, and preventing patients from moving up to level 3 or 4, you will prevent deaths.

Example: A physician is on her way to work at an alternate community site of care where 20 patients are waiting for intravenous hydration to begin. She is stopped by a community member who reports her 10-year-old son is very sick and having trouble breathing. The physician runs to the home and finds the son in desperate condition. He is in respiratory failure and needs oxygen and mechanical ventilation, neither of which is available. Not only is the referral hospital overwhelmed and out of life-saving resources themselves, the boy would never survive the trip. The physician must decide whether to stay with the child and do whatever she can to try to save him, or accept that the boy is going to die and request comfort care resources for the boy and the family. If the physician remains with the child for several hours before he dies, the 20 patients waiting for intravenous hydration may worsen and become level 4 patients. By providing a trained volunteer who can sit with the boy and the family to provide support and a caring and dignified death, the physician can then treat the level 3 patients. This is likely to result in some of these patients moving down the pyramid to a lower level of care, thereby building the base.

- **Provide mental health support.**

  Healthcare providers, patients, and their loved ones will need a great deal of support. The use of triage involves very difficult decisions for all involved. Even when it is clear that lives are being saved, and that the greatest number of patients are receiving the best possible care, many will feel great sadness, guilt, and stress. This may be heightened once the crisis has passed and there is time to reflect and grieve. You should anticipate this need, and plan to support those who are suffering. (See Tool 19, *Recovery and Resilience*.)

- **Minimize preventable deaths from all causes.**

  During a severe pandemic, many people will die. Some of these will be deaths that would occur under any circumstances, but others will be deaths that occur because of the changes in healthcare access and resources during a pandemic. The focus of pandemic triage planning should be to prevent unnecessary deaths—those that would not occur if care were available.The deaths that are preventable will vary from country to country, and local area to local area. Municipal leaders need to work within their own context of healthcare access and resources. In addition to accepting that no one can prevent all deaths, it is important to recognize what you can do. Through effective triage planning, leaders can make the best use of limited resources to prevent deaths in the lower levels of care. Without this care, many will move up the pyramid of care and become preventable deaths.

  Part of saving lives and preventing unnecessary deaths is related to non-pandemic illness. Healthcare resources must be used to continue to provide life-saving non-pandemic care for HIV/AIDS, malaria, diarrheal illness, pneumonia and other communicable diseases, cardiovascular disease, diabetes, and others. If all the healthcare resources are used by the pandemic populations, many deaths will occur from non-pandemic causes. Reducing all preventable deaths, pandemic and non-pandemic, should be the focus of pandemic triage. Tool 16, *Maintenance of Essential Services*, can help to identify the healthcare services that need to be maintained during the pandemic.

- **Consider legal and ethical implications of triage.**

  There is a great deal of variability between countries on the relevance of legal protection for healthcare providers and volunteers who implement triage.

Municipal leaders need to review the legal framework in the local area, and involve the central government in the planning and implementation.

As with all disaster planning, you should pay special attention to ensuring that the most poor and vulnerable groups, internally displaced persons, and others that may be at increased risk of disease and death are provided for. Public transparency about the need for and objectives of pandemic triage, as well as public participation in triage planning and implementation will help to ensure an effective response. Finally, triage should only be used when it is needed, and only in proportion to that need.

- **Get ready.**
  - The type of triage that is best suited to a pandemic—and other catastrophic events that overwhelm healthcare systems—is very different from the typical concept of triage in a mass casualty event, such as a plane crash or earthquake. Therefore, every effort should be made to provide training in this concept of care to healthcare providers and others involved in healthcare access in the community.
  - Ensure that healthcare providers are knowledgeable about the need for triage and the objectives of the plan. This should include familiarity with the impact projections for the peak of the pandemic, the levels of care, the pyramid of care, and the concept of building the base.
  - Assess resource gaps and address as many as possible ahead of time.
  - Train sufficient volunteers to assist with level 2 and 3 care.
  - Identify and plan for alternate community sites of care for level 3 patients.
  - Develop a plan for level 4, and train volunteers in comfort care and support.
  - Develop a communications plan for all personnel needed to implement the triage plan.
  - Develop a process to assess the balance of care needed versus resource availability on an on-going basis.

SOURCES

- AHRQ (Agency for Healthcare Research and Quality). 2005. *Altered standards of care in mass casualty events.* Prepared by Health Systems Research, Inc. under contract no. 290-04-0010. AHRQ Publication No. 05-0043. Rockville, MD: AHRQ.
- CDC (U.S. Centers for Disease Control and Prevention). FluSurge 2.0. http://www.cdc.gov/flu/tools/flusurge/ (accessed March 18, 2009).
- HHS (U.S. Department of Health and Human Services). HHS pandemic influenza plan supplement 5 clinical guidelines. http://www.hhs.gov/pandemicflu/plan/sup5.html (accessed March 18, 2009).
- Phillips, S.J., and A. Knebel, eds. 2007. *Mass medical care with scarce resources: A community planning guide.* Prepared by Health Systems Research, Inc., an Altarum company, under contract no. 290-04-0010. AHRQ Publication No. 07-0001. Rockville, MD: AHRQ.
- WHO (World Health Organization). 2008. *Pandemic influenza preparedness and mitigation in refugee and displaced populations.* 2nd ed. Geneva: WHO. http://www.who.int/diseasecontrol_emergencies/HSE_EPR_DCE_2008_3rweb.pdf (accessed March 18, 2009).

HEALTH

TRAINING FOR COMMUNITY HEALTH RESPONDERS (SESSIONS I–III)

PREPAREDNESS

RESPONSE

This tool will help you to:

- Develop your capacity to readily train and support first responders during an influenza pandemic.
- Provide rapid, coordinated, and effective responses that will minimize sickness and death, safeguard livelihoods, and maintain municipal cohesion and integrity.

Who will implement this tool:

- The ***municipal leadership team*** will train the trainers—who may include municipal government staff, local-level Ministry of Health staff, or representatives from nongovernmental organizations or other agencies and organizations—who will then be prepared to train community health responders and volunteers.

First responders include a wide variety of community representatives, staff, and volunteers who will provide critical information, care, and leadership to community members during the pandemic influenza crisis.

OVERVIEW

This training and planning package was created to help municipalities in each country become prepared for a pandemic influenza outbreak. Then, when an ***influenza pandemic*** starts sweeping around the world, each country will be ready to respond rapidly. This package is designed to be customized for the needs of your municipality before a pandemic breaks out, and then put into action as soon as a pandemic begins to move around the world. The information contained here will enable all municipalities in the country to equip themselves with the information and planning tools that history has shown can save many lives.

WHO WILL PROVIDE THIS TRAINING?

The trainers and planners will be different in different countries and municipalities—they may be municipal staff; local- or district-level Ministry of Health staff; or representatives from national Red Cross and Red Crescent societies, nongovernmental organizations, or other agencies or organizations.

WHEN SHOULD WE USE THIS PACKAGE?

Pandemic influenza programming consists of two major components: ***preparedness*** and ***response***. During the preparedness phase, each country and each municipality readies itself to deal with the complex emergency of a widespread, severe influenza outbreak. The response phase is what happens during the pandemic outbreak, which may include as many as three ***waves*** of illness.

Each country will develop a preparedness plan according to its own context and resources. Preparedness refers to the readiness to predict, prevent, lessen, respond to, and cope with the effects of the disaster. This package provides key tools that need to be adapted to each setting and put into place (with materials adapted, roles and responsibilities assigned, and actions and policies planned), ready for the response phase. Good preparedness means creating a system that can be easily put into action whether the influenza pandemic happens in 1 year or in 10 years.

As with other emergencies, the general population will not be fully mobilized until ***post-trigger***, that is, until an influenza pandemic has been identified and is spreading around the world. This is the response phase. Pandemic outreach to the general public may include sensitization, raising awareness, and some training—much of which can be used for general ***infection control***, community healthcare, and/or during other disasters.

Pandemic Influenza Health Programming Timeline		
Preparedness Stage: Getting Ready (now)	 World Health Organization announcement of *sustained human-to-human transmission* of a new influenza virus anywhere in the world triggers rollout response in every country	Local Response Stage: Handling the Crisis (pandemic influenza is in your community or a nearby community)
Adapt this curriculum Create training plan Train trainers *Maintain until trigger*	Train community representatives, leaders, community health responders, and others	Ongoing training Adapt training as needed Follow-up and supervision Disseminate regularly updated information and guidance
Create community-level planning structures and plans *Maintain until trigger*	Begin implementing community-level plan by conducting community training	Continued plan implementation Monitoring and evaluation Update structures and plans as needed

WHAT DOES A COMMUNITY HEALTH RESPONDER DO DURING AN INFLUENZA OUTBREAK?

- Educates to prevent spread of influenza and other illnesses
- Cares for those sick with influenza
- Cares for those sick with other illnesses
- Brings trusted and accurate news: influenza information, closures, government updates and recommendations
- Links sick or needy people to the health system, community care and government through referrals, care, reports
- Collects information, stories and messages from the community to share with health system, leaders, data collectors

WHO WILL RECEIVE THE TRAININGS?

Trainees will include community health responders, community volunteers, and community representatives.

WHAT IS A COMMUNITY HEALTH RESPONDER?

A community health responder is a person who will provide healthcare and education at the community level during a local outbreak. A community health responder may be a trained health worker, a community volunteer, or someone else.

The people who will take on the role of community health responder will differ among communities, depending on the volunteer and health programs that already exist. Their roles and responsibilities will change depending on whether they work in cities, slums, villages, the countryside, big countries or small, and depending on local systems for healthcare, water, food, electricity, police, and more.

WHAT IS A COMMUNITY REPRESENTATIVE?

Community representatives and volunteers are leaders and members of the community who will educate and inform the people in the community, and represent their needs to higher authorities, if necessary. They may also help make plans for how to handle problems and complications resulting from the pandemic.

These volunteers do not need to be health experts. They should be trusted by the public and skilled at planning, helping, and communicating with others. They might be suitable for the task because they are respected in the community, have good social skills, represent special groups, or hold jobs that help them reach many people. Examples of community representatives include journalists and other media staff (newspaper, radio, television), health workers or volunteers, teachers, headmasters/headmistresses, civil servants, nongovernmental organization staff, civic leaders, religious leaders, traditional healers, women's group members, business leaders, entertainers, youth leaders, and so on.

WHAT DOES THIS TOOL CONTAIN?

This tool includes an overview, a section on adapting the tool for local use, a set of training tips, and a training curriculum that is divided into three training sessions. The handouts for each session are provided at the end of the tool.

The overall structure of the tool and its intended use is shown below.

Activity

Municipal staff, local Ministry of Health staff, and others

Train
(as soon as possible)

Contents of Tool (Curriculum)

Introduction: Overview, Adaptation, Training Tips	Trainers may be municipal officials, local-level Ministry of Health staff, national society staff, nongovernmental organization staff, volunteers, and/or others (as appropriate for your community)

Train
(timing to be determined—before pandemic influenza breaks out, or just after)

Training session:	Community representatives in:	Community health responders in:	Community health responders already implementing formal community case management* in:
What is Pandemic Influenza?	✓	✓	✓
Spreading Prevention Messages	✓	✓	✓
Infection Control for Community Health Responders		✓	✓

*This refers to those who have already received other formal training in healthcare.

ADAPTATION

HOW DO WE ADAPT THE TRAINING SESSIONS, MESSAGES, AND EDUCATIONAL MATERIALS FOR LOCAL USE?

Make the materials and activities understandable to the trainees—whatever it takes. This may mean translating the materials into one or more local languages, adapting the appearance of materials, or changing the words or drawings so that community health responders and community members understand them correctly. Keep materials as clear and simple as possible. Field-test all materials on representatives of the actual people who would use them before making the final version.

WHAT PARTS OF THIS PACKAGE NEED TO BE ADAPTED TO THE SETTING IN WHICH THEY WILL BE USED?

- **Every training session includes special guidance for what needs to be adapted.** Give yourself time to prepare the session following that guidance.
- **You need to know what phase the spread of the influenza is in at the time of the trainings and planning exercises.** Perhaps now pandemic influenza has not yet broken out. Maybe pandemic influenza has broken out in another part of the world and could arrive soon. Or maybe it is spreading in your country. Find out what the World Health Organization or other authorities currently are reporting about this. You will need this important information for every session.
- If needed, all materials should be **translated and presented in the local language(s).** Finding the right translator is very important to be sure that materials are translated properly. Translators should be carefully chosen: the best translators aim for translation of ideas and concepts—not just a word-for-word translation. Use common, simple words, and culturally understandable terms and ideas. A *style sheet*—which specifies consistent language, terminology, and the style to use throughout the materials—should be developed. Short, clear sentences that are sensitive to issues of culture, gender, and age are best.
- **If community members cannot read well or at all,** activities can be adapted using pictures, symbols, maps, spoken word, songs, poems, drama, storytelling, creative memory aids like acronyms (where each letter of a simple word stands for something), and other techniques. All adaptations must be carefully tested on the target population—for example, some people are even picture-illiterate, meaning that they have not learned to recognize pictures. If you have access to the internet, this publication from the United States Government may be helpful: *Clear & Simple: Developing Effective Print Materials for Low-Literate Readers.* (Available electronically at http://www.nci.nih.gov/cancerinformation/clearandsimple)
- **Be creative!** Look for chances to make the materials as familiar and memorable as possible. For example, the training materials suggest singing a short song when handwashing to be sure to wash one's hands each time for 15 seconds. We have suggested the song "Happy Birthday," because it is the most common song in the world. However, the trainers and/or trainees may enjoy choosing a local song, and even changing the words of that song to create a handwashing song—just be sure that the length is about 15 seconds.

Adapting Printed Materials: Brochures, Posters, etc.

- **Adapting the educational handouts is an important task.** Perhaps they will be useful as they are presented here. Or they may need to be adapted. They should be as clear and basic as possible, using local language, terms, ideas, resources, and referrals. Drawings should be easy to understand and appropriate.
- **Test all materials** out on local people before making the final version. Do they understand the content? Can they explain it properly? If not, figure out how to make it better.

Checklist: Ensuring Good-Quality Materials	
Are the messages:	Are sources trusted and believable?
Accurate?	Are the messages and materials:
Consistent?	Appealing?
Clear?	Sensitive to gender differences?
Meaningful to the audience?	Accessible to all groups?

WHAT TECHNICAL INFORMATION IN THIS PACKAGE MIGHT CHANGE?

All materials in this tool are based on the latest information from the World Health Organization; the United States Agency for International Development, the Centers for Disease Control and Prevention, and other United States agencies; and the expertise of global health organizations, including the International Federation of Red Cross and Red Crescent Societies and the Johns Hopkins Bloomberg School of Public Health.

Because each influenza outbreak is different, technical guidance and recommendations may change when pandemic influenza emerges. For example, we will know more about: which people are at highest risk of serious illness or death (most likely infants, the elderly, and people with ongoing medical conditions); how long a sick person is likely to be contagious; and the most effective medications (including antibiotics) and treatments. As in all emergencies, rumors and misinformation will spread rapidly. For this reason, users of this package must identify a source of credible information for updates, possibly within the Ministry of Health or the World Health Organization. All changes and updates to these materials must be based on extremely reliable, high-level sources. All changes should be consistent with national guidelines and policies.

TRAINING TIPS

DO NOT GATHER PEOPLE TOGETHER DURING A LOCAL OUTBREAK

When group gatherings are not possible, find other ways to train people and spread information—via telephone and text messages, radio, printed materials posted and distributed, or whatever works best in your community.

Use the time before, between, and after outbreaks for group trainings—following the advice of experts as to when it is safe to gather. During those gatherings, whenever possible meet outside and spread out. Participants may wear ***face masks***.

SURROUNDINGS

Create a comfortable learning environment—one with plenty of space (but in which everyone can hear the speakers), comfortable seating, and a comfortable temperature.

Break regularly and, if possible, provide food.

LEARNING ATMOSPHERE

Set a friendly tone that encourages learning—open, relaxed, and caring.

Encourage learners to ask questions, hold active discussions, and fully participate.

Be sure the training is right for the literacy level, learning level, and language of the trainees.

Tell me, I will forget,
Show me, I will remember,
Involve me, I will learn.

– Native American Proverb

TEACHING TECHNIQUES

People learn best through a variety of techniques—use words, pictures, songs, demonstrations, drama, stories, parables, and interactive activities. Appeal to all of the senses.

People learn less when they sit silently, listening to someone talking. They need to practice with the content. Lectures do not ensure that learners really understand, do not imprint the memory well, and can be boring.

As often as possible, give participants a chance to practice using the material, using techniques like small group work, teach-back, role-playing, and more.

MEASURE TO SEE IF IT IS WORKING

Use pre- and post-training tests to measure success. If participants are not learning what you are trying to teach, ask them for ideas about what is wrong and how to improve. Get expert help too. Change the curriculum to make it work.

SESSION 1:

WHAT IS PANDEMIC INFLUENZA?

SESSION 1: WHAT IS PANDEMIC INFLUENZA?

WHAT IS THE PURPOSE OF THIS TRAINING SESSION?

This session will be used by municipal-level trainers to provide trainees with a basic introduction to pandemic influenza terminology and key concepts.

LEARNING OBJECTIVES

At the end of this session, trainees should be able to:

- Define pandemic influenza, and how it is different from avian influenza.
- Describe how pandemic influenza spreads from person to person.
- List the major symptoms of pandemic influenza.
- Outline basic influenza home treatment guidance.
- Explain what we have learned from past influenza pandemics.

TRAINING METHODS

Methods to be used in this session include a card-sorting activity, presentation and discussion, and post-training test.

SUGGESTED TIME TO CONDUCT TRAINING SESSION

This session should require 60–75 minutes.

WHAT NEEDS TO BE LOCALLY ADAPTED

See the Introduction for guidance on local adaptation, including more on the points below.

- You need to know the current state of the pandemic in the world.
- The handouts should be adapted for local use.
- If your participants cannot read and write well or at all or do not understand the language in which the materials are provided, see the adaptation section for guidance on translating and adapting materials.

SUPPLIES AND PREPARATION NEEDED

- *Pre-training test:* One copy of the pre-training test form (Handout 1.A) for you to fill out.
- *Card sorting:* Fill out individual cards (Handout 1.B), with one card for each title or question, and one card for each answer. Tape and wall space are needed for hanging the cards. Hang the title cards around the room before beginning the training session.
- *Blank cards* on which participants may write questions. For an audience without strong reading and writing skills, you may also need illustrations.
- *Presentation:* Your prepared presentation, using content from Handout 1.C and slides provided in Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic.*

- *Post-training tests*: A copy of the test (Handout 1.D) and one pencil or pen for each participant. They will need a surface to write on. If these supplies are not available, see alternate instructions.
- *Summary*: A summary of the important information from this session, designed so that local people can understand it well.

OPENING

(10–15 minutes)

1. *Welcome.* Greet participants in a friendly way. (People learn better when they feel comfortable.)
2. *What to expect.* Tell participants the title, objectives, and length of the entire training session and the title and length of this topic.
3. *Introduce yourself.* Include information about your work and why you are here.
4. *Learning well together.*
   - Ask participants to introduce themselves. Ask participants to briefly mention if they have experience with disaster preparedness, or with community healthcare (i.e., when workers or volunteers provide health education or care in people's homes or other community locations). If the group is large, divide the participants into small groups and give them 5–10 minutes to introduce themselves within their groups. Another option is to have them say who they are and how they would like to be addressed.
   - Ask participants to offer ideas for a list of rules of behavior for everyone to follow during this and subsequent training sessions (for example: one person talks at a time, turn off telephones, cover coughs and sneezes, and so on).
   - Ask participants to be active learners and to ask questions.
5. *Basic needs.* Tell participants where the restroom/toilet is, and other basic information.

PRE-TRAINING TEST: WHAT DO WE ALREADY KNOW ABOUT PANDEMIC INFLUENZA?

(10 minutes)

Opening.

Tell participants:

Some of you may already be familiar with what pandemic influenza is and what to expect when it arrives and people start getting sick.

However, many people have not yet learned about this dangerous hazard—which is why we are here!

Let's take a moment and find out what you might already know. Please raise your hand if you are sure you know the answer to each question I ask. Keep your hand up until you have been counted. If you do not know the answer, do not raise your hand.

Ask participants each question on the pre-training test form (see Handout 1.A), and fill out the form as directed. (Later, you will compare this to the post-training test scores.)

CARD SORTING: LEARNING ABOUT PANDEMIC INFLUENZA

(10 minutes)

1. Post the following titles on walls around the room, with space to post the answer cards next to or below each title.

What is a "pandemic"?
What is "avian influenza"?
What is "pandemic influenza"?
What does "post-trigger" mean?
What is the meaning of "virus"?
Symptoms of influenza
Transmission (how pandemic influenza spreads)
Treatment (home care—because hospitals will be too full)
History tells us that…
Questions about birds
What are your questions?

2. Pass out the cards with the "answers" written on them to the participants. (See Handout 1.B for guidance on what you should write on the answer cards.) Ask everyone to read the titles and do their best to post their cards under the appropriate heading. Hand out tape. Provide blank cards on which participants may write questions to post under the last category.

   Another option, useful if the group is large: ask participants to discuss first in small groups what they think the answers are. Then hand out the cards with the "correct answers" and have them post the cards correctly.

   If the participants do not read well, you can lead the activity by reading each card out loud and asking the group for guidance. If this is the case, you may want to include simple, clear drawings or symbols on the cards.

   Review the outcome with the group, card by card. Ask them if they think each card is in the right place. If some cards are in the wrong place, talk with the group about where they should go.

PRESENTATION AND DISCUSSION

(15–20 minutes)

1. *Opening.* Tell the group that you are going to give them more details about pandemic influenza. If your schedule is tight, ask them to save questions for the end. Later, in the next training session, the group will learn the best techniques for slowing the spread of pandemic influenza.

2. *Presentation.* Depending on your supplies, you may want to create flipcharts, a computer presentation, or use a chalkboard to write the main points in a few words that people can read while they listen to you. If you use written words and pictures while talking, participants will better understand and remember the information. See Handout 1.C and Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic* for information about pandemic influenza, and for sample computer slides; this information and slides can also be used as flipchart pages or chalkboard notes.

3. *Question-and-answer period.* Encourage participants to ask questions and discuss what they have learned in this session.

POST-TRAINING TEST

(15 minutes)

1. *Opening.* Tell the group it is time for a test. The purpose of the test is to be sure that this training has been successful in helping participants understand pandemic influenza. Because this information has the power to help communities and people who get sick, we must be sure that each participant understands what we have covered.

   Tell them you will hand out the test, and ask everyone to work alone to fill it in. The participants will have 10 minutes to complete the test. Then you will collect the tests, and review all of the answers.

   After the training, you will correct the test, and follow up if needed. Tell participants that if they feel they have not done well on the test, and would like more help, they should seek help with the trainer or from other participants.

   If you are working with people who are not comfortable with reading and writing, you can give this test by asking for a show of hands or by asking participants to vote on each answer with stones or other small objects (e.g., beads, paperclips, or goat pellets).

2. *Give the test, collect it (for correcting later), and review all of the answers with participants.* Ask participants to supply answers. If someone gives an incorrect answer, ask the group for help. Give as many people as possible a chance to talk. Stay away from terms like *right* and *wrong*. An environment in which every participant feels *safe* is very important.

3. *Session closing.* Give a short summary of what has happened, and what comes next. Thank participants for coming.

SESSION II:

SPREADING THE WORD:
PREVENTIVE MESSAGES ABOUT INFLUENZA

SESSION II: SPREADING THE WORD: PREVENTIVE MESSAGES ABOUT INFLUENZA

WHAT IS THE PURPOSE OF THIS TRAINING SESSION?

This session will be used by municipal-level trainers to teach community representatives (including community health responders) the four flu-fighting behaviors and how to mobilize the community to use them.

LEARNING OBJECTIVES

At the end of this session, community representatives should be able to:

- List the four most important behaviors for preventing the spread of pandemic influenza.
- Describe the key actions that make up each behavior.
- Describe the value and use of masks during an outbreak.
- Describe a community communication plan to reach all members of the community, including those who are often forgotten or ignored.
- List the members of a committee that will oversee the plan and outline the committee's responsibilities and timeline.
- Explain how to provide feedback from the community and other critical information to the committee on a regular basis.

WHAT NEEDS TO BE LOCALLY ADAPTED

To learn how to adapt this session to the needs of your municipality, refer to the adaptation section of this tool.

WHEN TRAINEES SHOULD RECEIVE THIS TRAINING

The timing of the training of the municipal-level trainers and then the community representatives will be different in each location, depending on funding, availability of staff and volunteers, and other factors. The timing specified in the table,"Pandemic Influenza Health Programming Timeline" (see overview section) is only a suggestion. *Actual timing decisions should be made in consultation with municipal and national authorities.*

TRAINING METHODS

Methods to be used in this session include pre-training and post-training tests; charades; teach-back; mapping; brainstorming; and discussions among small groups, pairs, or the whole group.

SUGGESTED TIME TO CONDUCT COMPLETE TRAINING SESSION

This session should require about six hours to complete (in addition to time for breaks and meals).

SUPPLIES AND PREPARATION NEEDED

- Chalkboard or flipchart paper and pens to document every activity if possible and to record thoughts during brainstorming.

- *Pre-training test.* One copy of the pre-training test form (Handout 2.A) to read out loud and on which to record answers.
- *Charades.* Before the charades session, you will need to select actors for the opening charade and develop and rehearse the "play" with them.
- *Teach-back.* Separate the boxes in Handout 2.B into individual handouts, with each flu-fighting behavior on one page.
- *Mapping.*
  - Either paper and pencils for each participant, if they will make their own maps, or one flipchart page or other large piece of paper to post on the wall. A chalkboard could also work, or a map can be made in the dirt using sticks, stones, and other items. Or, if you have an actual map, you can post it and write on it.
  - Statistics about the population would be helpful, but are not required.
- *Community plan.* Paper or chalkboard to document the plan.
- *Post-training test.* A copy for each participant (Handout 2.C), if they have reading and writing skills, and one pencil or pen for each participant and a surface to write on. If these supplies are not available, or if the participants do not have reading and writing skills, conduct a spoken test like the pre-training test.

OPENING

(5 minutes)

1. *Welcome participants.* Set a friendly and personal tone.
2. *Describe what participants should expect.* Tell participants what the topic and learning objectives are and how long this session will be.
3. *Encourage participation.* Remind participants of the group rules that were created in Session 1 and encourage them to ask questions and to be active; they will be learning more life-saving information and need to understand it well.

PRE-TRAINING TEST: COMMUNITY PREVENTION OF PANDEMIC INFLUENZA

(20 minutes)

Opening. Tell participants:

- Some of you may already be familiar with the prevention of pandemic influenza.
- However, many people probably are not—which is why we are here!
- Also, your community may already have an emergency communication plan—or it may not.
- Let's take a moment and find out what you might already know. Please raise your hand if you are sure you know the answer to each question I ask. Keep your hand up until you have been counted. If you do not know the answer, do not raise your hand.

Ask participants each question on the pre-training test form (see Handout 2.A), and fill out the form as directed. (Later you will compare this to the post-training test scores. This will help you understand how well the training has worked, and what follow-up will be needed.)

CHARADES: INTRODUCING THE FOUR FLU FIGHTERS

(20 minutes)

1. *Preparation.* Before the session, work with several volunteer actors to devise a short play (a few minutes long) in which they do not speak, but act out all of the behaviors.

   For example, Person A, carrying a package, is walking down the street and stops to talk to Person B—staying at least one meter away. Then Person A sneezes, covering his or her face with the crook of the arm. Person A arrives at a house and knocks on the door. To the side—inside a (pretend) house—is Person C, who is sick in bed. That person is coughing into a tissue, which he or she then puts into a trash bag. Person D, the caretaker, leaves the room to answer the door. Person D greets Person A outside, keeping two meters between them. They each take a turn to wash their hands for 20 seconds at an outside tap. Person A puts the package by the door. Person D thanks Person A, always remaining two meters away. Person D takes the package inside to Person C, the sick person.

2. *Opening.* Tell participants that scientists have studied the way viruses spread, and have discovered that there are four behaviors that are the most powerful ways to slow down the spread of the pandemic influenza virus. As we have learned, pandemic influenza spreads when the influenza virus moves from one person to another in two ways. The first is through the air. The second occurs when a person touches a surface (or another person) that has the virus on it. The person then touches his or her eyes, nose, or mouth and the virus enters the body.

3. *The charade.* Now inform participants that they are going to see a play in which the actors will not talk. The people in the play will be acting out the four key flu fighters. Ask participants to watch closely and see if they can spot all four flu-fighting actions.

4. *Discussion.* Lead a short discussion about what the group thinks the four behaviors are. Once they have been identified, tell the participants that they will learn all of the important details about each flu-fighting behavior.

TEACH-BACK: LEARNING ABOUT THE FOUR FLU FIGHTERS

(1 hour and 15 minutes)

THE FOUR FLU FIGHTERS:

Keep Your Distance

Wash Your Hands

Cover Coughs and Sneezes

Separate the Sick

1. *Opening brainstorm.* Tell participants that now that we know what the four flu-fighting actions are, we need to think about what might stop people from using them. Sometimes everyday life gets in the way of using new behaviors. For example, people may not have a handwashing station set up at their homes. Or they may feel that they are being rude if they "keep their distance." If we can imagine what will stop them, we can offer suggestions for success. Let's brainstorm a list of these possible problems. We'll use the list in the next activity. Make a list of reasons why people might not use each behavior.

2. *Small group work.* Divide your participants into four small groups (or eight groups if you have many participants). Give each group a handout about one of the four flu fighters (one of the first four boxes of Handout 2.B for each group) and tell them that they have 15 minutes to study and discuss the handout and come up with an interesting, useful way to teach that topic to a group in the community,

such as students in a school or people at the market, at a traditional assembly, or during a family gathering. Methods may include songs, plays, discussions, ways to get audience members involved, the use of props, storytelling, or anything else. Ask each group to offer solutions to some of the problems listed in the previous activity.

3. *Teach-back.* Call the whole group together, and ask each of the smaller groups to teach its topic to the larger group using the method that they developed. Ask the audience to pretend that they are community members. They can ask questions and list the problems from the last activity and ask the presenters what to do about them. (If more than one group has been assigned to each topic, ask one of these groups to teach the larger group; afterwards, the other group that addressed that topic can explain how its approach was similar or different.)

4. *Discussion.* Give the larger group a chance to ask questions and discuss the method after each presentation. Did they learn the topic? Do they think the method is a good way to communicate? Be prepared to help explain each topic. Be sure all information given is correct and includes all main points.

5. *Linking with ongoing activities.* Ask the group if any community health or disaster preparedness activities already take place in their communities. How might they connect their prevention work with those activities?

6. *A word about masks.* Summarize the content of the last box in Handout 2.B, which addresses the issue of masks.

MAPPING: WHO DO WE NEED TO REACH; WHERE CAN WE FIND THEM?

(1 hour)

Opening. Tell participants that we now know *what* the important prevention messages are, and we will now plan for *who* we need to reach and *where* to find them. You can help participants follow along by writing the following on a flipchart or chalkboard:

> ***What*** are the messages? ☑
>
> ***Who*** should receive them?
>
> ***Where*** can we find those people?
>
> ***How?***

1. *Mapping: Who is in the community?* (40 minutes) Tell participants that everywhere in the world, groups of people are forgotten or ignored. These often include women and girls, low-income people, and individuals identified as minorities who may look different, speak a different language, practice a different religion, live in hard-to-reach areas (slums or rural areas), or belong to a smaller ethnic group.

   Work with the group to create a map of the community (or communities) represented by the participants. If participants are all from one community, the group can work together to create one big map. Ask them to include the following on their map(s): main roads, healthcare sites, churches, schools, neighborhoods, community centers, markets, bus and train stations, shops, public buildings, laundry sites, public water locations, police stations, the "outskirts" or rural areas, slums, places where people work, and whatever else they can think of.

If influenza has broken out in your area, do not use any communication method that gathers people together because that can spread the virus. However, when no local outbreak has occurred (before the influenza arrives, or between outbreaks), these kinds of activities are possible. No matter the timing, meet outside whenever possible, with people spread out and instructed to cover their coughs and sneezes.

2. *Make a list.* (20 minutes) Once the maps are complete, use the maps for guidance to lead the group in creating a list of the different subgroups of people, considering age, religion, language, job, wage (pay) levels, and more. Point to different places on the map and ask who lives, works, or passes through the main sites. Use the map to check that all groups are included on the list, and use the list to check that the map includes representation of all groups (e.g., by including their churches, gathering places, neighborhoods, and so on).

   Mark the map or make a note on the list to show the best places for reaching each group. For example, in some communities, a good place to reach women is at the place where they gather to do laundry. Slum dwellers may gather at a central athletic field. Students will be in schools. Workers may walk along a main road. Out-of-school youth may gather at a village center. Certain radio programs may be popular with nearly everyone. Use any statistics you have to help add to the picture.

BRAINSTORMING: MAKING A COMMUNITY COMMUNICATION PLAN

(1 hour 15 minutes)

1. *Opening.* Tell participants that you have talked about *who* needs to learn about prevention and *where* they live, work, and gather. Now you will discuss *how* to get the prevention messages to everyone. Different people get their information from different places. Students learn in school. Out-of-school youth may look up to popular singers. Some adults learn by reading the newspaper or listening to the radio. Many people look to traditional leaders and healers for guidance. Nearly everyone learns from talking to friends, coworkers, neighbors, and family members every day.

What are the messages?	☑
Who should receive them?	☑
Where can we find those people?	☑
How can we reach them?	

   These are all part of *three kinds of communication channels:* community, interpersonal (between individual people), and mass media (television, radio, newspapers, magazines, and text messages). Although interpersonal is the most powerful channel, mass media reaches the greatest number of people in the shortest time. Community channels share both advantages. It's best to use a mix of channels, because scientists have learned that people will change their behavior if they receive messages that are *clear, simple, believable, acceptable, up-to-date, and continuous.* These messages should come from a variety of trusted sources.

2. *Brainstorming.* Divide participants into small groups. Ask them to work for 25 minutes to come up with three creative, realistic ideas for each communication channel (community, interpersonal, and mass media) to include in a community communication plan. Encourage them to link to any ongoing health or disaster preparedness activities.

Remind participants that the point of these activities is to help community members adopt the four flu-fighting behaviors. With each idea, ask them to note who would be the best person, group, or organization to complete that task. The plan should describe an ongoing effort that will take place during the waves of pandemic influenza. Because these waves may occur over several years, this plan will be a life-saving effort for a long time.

To get the participants started, share the following examples with them:

COMMUNITY-BASED CHANNELS

Community mobilization and outreach activities. Examples: Posters and billboards, local radio, street theater, puppet shows, presentations (may be videotaped), talent shows, and art contests or via existing community networks (grandmother clubs, age-mates, hobbyists), peer support, or workplace efforts.

INTERPERSONAL CHANNELS

This channel results from interactions between people who already know each other: friends, family, teachers, students, and healthcare providers and volunteers—including informal discussions, telephone hotlines, and client counseling.

MASS MEDIA CHANNELS

Print—newspaper, magazine, direct mail, comic books and photonovelas, pamphlets, fliers, posters, and billboards.

Broadcast—television and radio using public service announcements, call-in shows, dramas and comedies, variety shows, music videos, songs and jingles, and celebrity endorsements.

Information/communication technology, such as mobile phones, CD-ROMS, websites, and distance learning.

Technology to the Rescue!

Low- and high-tech methods can be used to keep people in close communication, yet physically at a distance. For example:

- Megaphones
- Loudspeakers (can be mounted on vehicles)
- Cell phones, including text messaging
- Amateur (or ham) radios or other types of radios (sometimes available in hospitals or police stations)
- Phone trees (see below)
- Email lists

What is a phone tree? A phone tree is like a triangle. The person at the top calls two people, each of whom then call two people, and so on, until everyone has been called. This method is quick, and spreads out the cost and the work. However, it must be set up in advance, with names and phone numbers listed and supplied to all members. If a person cannot be reached, the caller should then call the two people that the unreachable person was supposed to call. Once a phone tree is set up, it could be used in any emergency. However, the phone numbers must be updated regularly!

Reassemble the whole group and give each small group a few minutes to read out their ideas, including who might be the best person or group to carry out that activity. Take notes under each communication channel.

3. *Assemble a "to-do" list.* Work with the group to prioritize the communication activities that the group has decided will reach people most effectively. Draft a community communication plan that includes one or more people who will undertake the activities. Be sure that the plan that develops will reach all of the community members, as listed earlier.

4. *Assemble a committee to oversee the plan.* This kind of plan works best if it is overseen by a group of people who can be the "eyes and ears" of the community communication plan, at the community level. Ideally, use a local committee or group that already exists and works well. If that is not possible, work as a group to assemble a new committee. Each person on the committee should commit to helping fulfill the responsibilities listed below and to attending the meetings.

5. *List committee responsibilities.* The committee should ensure that:
   - the proposed prevention messaging activities are happening as planned
   - all community members are being reached
   - each person is correctly fulfilling his or her assignment
   - all information and messages being spread are correct
   - the activities are working in that community members are using the flu-fighting behaviors
   - the communication plan is improved as needed

6. *Set a timeline.* How often should the committee meet? What should happen between these meetings? Set a regular meeting time and place and schedule the first meeting. Create an agenda—that is, a list of issues that will be covered during the meeting. Discuss how community representatives can pass community feedback and ideas to the committee. In the long run, who will be sure that the committee meets often and that the committee responsibilities listed above are taken care of?

ADVICE FROM EMERGENCY COMMUNICATION EXPERTS

People want information about

- What is known and unknown, with guidance
- How to protect themselves

Messages should be

- Consistent (the same messages from different sources)
- Correct and clear
- Straightforward and honest (don't hide the negatives)
- Up-to-date
- Reliable

For more detailed communication guidelines, refer to Tools 12–14, in the *Crisis and Emergency Risk Communications* section of this toolkit and the Sources at the end of this document.

FINAL REVIEW AND POST-TRAINING TEST

(30 minutes)

1. *Review:* Ask each participant to pair up with the person next to him or her, and spend five minutes discussing three things.

   a. Do you still have questions? If so, can your partner answer the question?

   b. How do you plan to get started when you return to your community?

   c. Do you understand the community plan and your job within it?

   Reassemble as a group and ask for a sampling of questions, answers, plans to get started, and how well they understand the plan.

4. *Post-training test.* Tell the group that it is time for a test. The purpose of the test is to be sure that this training is successful in helping participants understand how to prevent influenza, and how to help people in their community use the flu-fighting actions.

   Tell them that you will hand out the test and ask everyone to work alone to fill it in. The participants will have 10 minutes to complete the test. Then you will collect the tests, and review all of the answers.

   Tell participants that after the training, you will correct the test and follow up if needed. If they feel they have not done well on the test and would like more help, they should seek help from the trainer or from other participants.

5. *Give the test, collect it (for correcting later), and review all of the answers.* Ask participants to supply correct answers. If someone gives a wrong answer, ask the group for the correct answer. Give as many people as possible a chance to talk.

6. *Session closing.* Summarize the main points of the session and thank participants for coming.

SESSION III:

INFECTION CONTROL FOR COMMUNITY HEALTH RESPONDERS

SESSION III: INFECTION CONTROL FOR COMMUNITY HEALTH RESPONDERS

WHAT IS THE PURPOSE OF THIS TRAINING SESSION?

This session will be used by municipal-level trainers to teach community health responders about their risk of contracting pandemic influenza and the infection control behaviors that they can use to minimize this risk.

LEARNING OBJECTIVES

At the end of this session, community health responders should be able to:

- Describe their level of risk, as community health responders, of contracting pandemic influenza during an outbreak.
- Identify who should *not* serve as a community health responder during a local outbreak.
- List the most important infection control behaviors for community health responders.
- Explain how to apply the behaviors during the course of their work as community health responders.
- Outline the decisionmaking process regarding when to stay home sick and when to return to work.

TRAINING METHODS

Methods to be used in this session include interactive lecture, a guided vision exercise, paired review, and pre- and post-training tests.

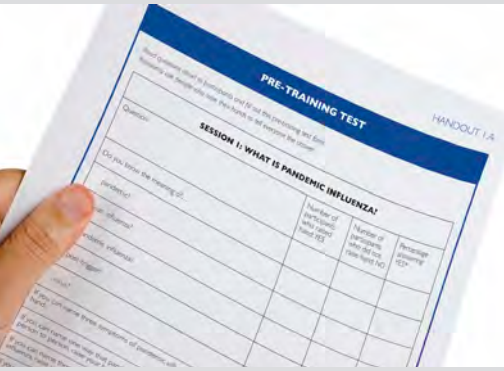
SUGGESTED TIME TO CONDUCT TRAINING SESSION

This session should require about two hours.

WHAT NEEDS TO BE LOCALLY ADAPTED?

Consider the key points below and refer to the adaption section of this tool.

- The guided vision script may need to be changed so that it better describes the situation in which the participants work.
- The handouts should be adapted for local use.
- If your participants cannot read and write well or at all, or do not understand the language in which these materials are written, see the adaptation section of this tool for guidance on translating and adapting materials.
- If the materials are translated into another language, do not translate the children's poem about the bird—it could be confusing (see Handout 3.C).



SUPPLIES AND PREPARATION NEEDED

- *Pre-training test*. One copy of the pre-training test form (Handout 3.A) for you to fill out.
- *Interactive lecture.*
  - A large copy of the "infection control window" (see diagram below) to post on a wall (or this can be drawn on a chalkboard). Optional: individual cards with the main infection control actions listed on each card (for posting on a window during the lecture).
  - Prepared lecture (Handouts 3.B and 3.C).

- *Guided vision.* Practice reading the script in Handout 3.D aloud and slowly. Adapt it to the local setting, if needed.
- *Summary.* A summary of the important information of this session, designed so that local people can understand it well.
- *How to make a homemade mask.* (If needed, use Handout 3.B).
- *Post-training test.* One copy for each participant (Handout 3.E), writing tools, and writing surfaces.

OPENING

(5 minutes)

1. *Welcome participants.* Set a friendly and personal tone.
2. *What to expect.* Tell participants what the topic and learning objectives are, and how long this session will last.
3. *Encourage participation.* Remind participants about the group rules that were created in the first session. Ask them to ask questions and to be active. They will be learning more life-saving information and need to understand it well.
4. *Introductions.* (Only needed if participants do not know you or each other.)

PRE-TRAINING TEST: WHAT DO WE ALREADY KNOW ABOUT INFECTION CONTROL

(10 minutes)

Opening. Tell participants:

- Some of you may already be familiar with the infection control actions to take during a local outbreak.
- However, many people have not yet learned about these important practices—which is why we are here.
- Let's take a moment and find out what you might already know. Please raise your hand if you are sure you know the answer to each question I ask. Keep your hand up until you have been counted. If you do not know the answer, do not raise your hand.

Ask participants each question on the pre-training test form (see Handout 3.A), and fill out the form as directed. (Later, you will compare this to the post-training test scores.)

INTERACTIVE LECTURE: INFLUENZA INFECTION CONTROL

(30 minutes)

Supplies needed:

- A large copy of the infection control window (see below) to post on a wall (or this can be drawn on a chalkboard).
- Optional: individual cards with an infection control action listed on each card (for posting on a window during the lecture.)
- Depending on your supplies, you may want to create flipcharts, a computer presentation, or use a chalkboard to write the main points in a few words that people can read while they listen to you. (See Handout 3.C for suggested content.)

1. *Introduction*. Tell participants: During an influenza outbreak, almost all health responders will wonder, *"Will I catch influenza?"*

   The answer is "very likely" if you do not understand how the sickness spreads from person to person. During an outbreak, *everyone* is at risk of contracting the illness—including you. Because you will be moving about the community, helping sick people, you may have a higher risk of infection. But, because you will know more than most people about influenza, *you can lower your chances of getting sick* with simple but powerful ways to stop the influenza virus from entering your body.

2. *Pregnant women.* Tell participants: One important note. Pregnant women should not come into contact with people who have influenza. They are at higher risk for getting very sick or dying from influenza. So, if an outbreak happens while you are pregnant, you need to stay away from all sick people (including those in your family).

3. *Interactive lecture introduction.* Tell participants: During the terrible 1918 epidemic, American children made up a poem they would sing and jump along with.

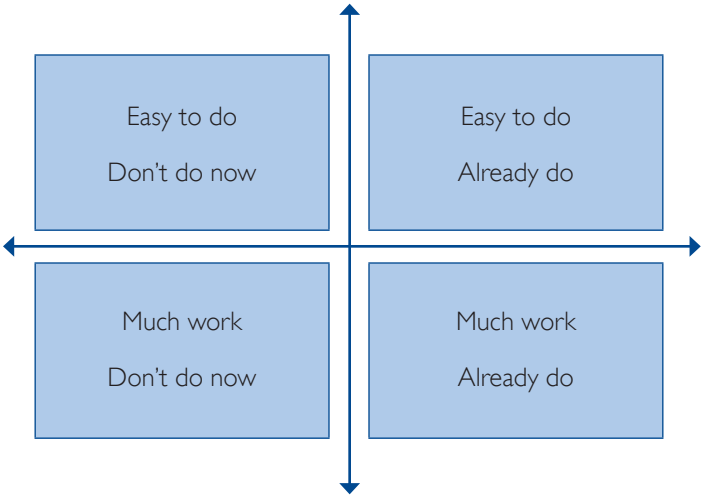
   I had a little bird,
   Its name was Enza
   I opened the window
   And in-flew-Enza.

   Although the influenza virus does not really fly in through windows, this pretend window may help us think about infection control in everyday life. (In fact, open windows may help *lower* the chances of infection by helping the virus float *out* of the window.)

4. *Infection control window.* Post the "infection control window," shown in the diagram below, and read the headings on each window pane. Ask the group for an example of an infection control measure, and then work with them to decide where it might go.

   Tell participants that you are going to explain to them what the most important infection control actions are that health responders can use during an influenza outbreak. As you go through the practices, you will need to work with the group to figure out where each practice belongs on the window.

THE INFECTION CONTROL WINDOW: SHUT OUT "ENZA"!



5. *Interactive lecture.* Deliver the lecture outlined in Handouts 3.B and 3.C. As you work through the infection control actions, discuss where they fit on the window, and why. If possible, stick a card naming the practice next to the window where participants think it belongs. The participants' input is important because they will know best how to solve problems that might stop them from engaging in the actions.

6. *Conclusion.* Sum up the infection control procedures, in order, from easiest to hardest.

GUIDED VISION: IMAGINE YOUR DAY

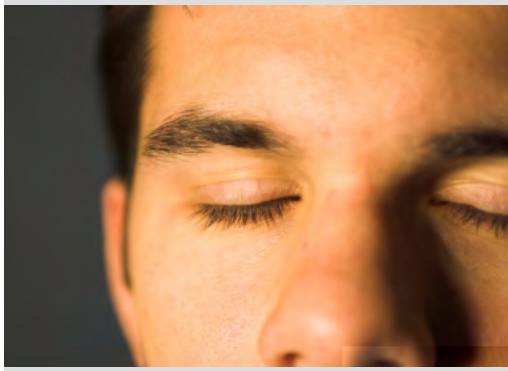
(40 minutes)

1. *Setup.* If possible, dim the lights, close out noises, and make the area as calm as possible.

2. *Introduction.* Tell participants: *Visualization*, or seeing things in your mind, is a powerful way to learn new behaviors. Now we are going to picture in our minds how we are going to use infection control actions in our days during a local influenza outbreak.

3. *Script.* Read the script included in Handout 3.D.

4. *Discussion.* Lead an in-depth discussion using the points provided in Handout 3.D. Encourage participants to think creatively about what problems they will face in using infection control actions, and how they can overcome them. Refer to the "window" if necessary to help guide the discussion—do the participants still feel that the actions have been appropriately placed on the window?



CONCLUSION AND POST-TRAINING TEST

(20 minutes)

Supplies needed: Copies of the post-training test (Handout 3.E)—one per participant, writing tools, and writing surfaces.

1. *Post-training test.* Tell the group that it is time for a test. The purpose of the test is to be sure that this training is successful in helping participants understand how to protect themselves and others.

   Tell them that you will hand out the test and ask everyone to work alone to fill it in. The participants will have 10 minutes to complete the test. Then you will collect the tests and review all of the answers. After the training, you will correct the test and follow up, if needed. Tell the participants that if they feel they have not done well on the test, and would like more help, they should seek help from the trainer or other participants.

2. *Give the test, collect it (for correcting later), and review all of the answers.* Ask participants to supply correct answers. In the case of a wrong answer, work with the group to determine the correct answer. Give as many people as possible a chance to talk.

3. *Session closing.* Thank participants for coming.

PRE-TRAINING TEST

Read questions aloud to participants and fill out this pre-training test form.
Randomly ask people who raise their hands to tell everyone the answer.

SESSION 1: WHAT IS PANDEMIC INFLUENZA?			
Question	Number of participants who raised hand: YES	Number of participants who did not raise hand: NO	Percentage answering YES*
Do you know the meaning of…			
pandemic?			
avian influenza?			
pandemic influenza?			
post-trigger?			
virus?			
If you can name three symptoms of pandemic influenza, raise your hand.			
If you can name one way that pandemic influenza spreads from person to person, raise your hand.			
If you can name three ways to care for someone who is ill with influenza, raise your hand.			
If you can tell us two things that we have learned from pandemic influenza outbreaks in the past, raise your hand.			

* First, divide the number of YES answers by the total number of participants. Next, multiply your answer by 100. For example, if 10 people answer YES out of 20 total participants: 10 divided by 20 is 0.5. and 0.5 times 100 = 50. So, the answer is 50 percent.

ANSWER CARDS FOR SORTING ACTIVITY

The bold boxes are the title cards. The other boxes are the answer cards that need to be filled out and supplied to participants, so they can post them on the wall.

Title Card/Question	*Correct Answer Card(s)*
What is a "pandemic"?	*A sickness that spreads around much of the world making many people sick.*
What is "avian influenza"?	*This sickness spreads from bird to bird, making some birds sick, or killing them. It can spread from bird to human too—but not from human to human.*
What is a "virus"?	*This creature is much too small for people to see with their eyes. It moves between living things and causes sickness. Also called a "germ," and a lot like a "bacterium" or "parasite."*
What is "pandemic influenza"?	*A respiratory, or breathing, illness that is new to humans. Such an illness develops about three times each century and spreads around the world.*
What is the meaning of "post-trigger"?	*When international leaders announce that an pandemic influenza is spreading easily from person to person, and is likely to spread around the entire world. This starts the "response phase" in pandemic influenza programs.*

Symptoms of influenza (one or more of these appear)	*Fever*
	Muscle and headaches
	Extreme tiredness
	Cough
	Sneezing
	Sore throat
	Runny or stuffy nose
	Nausea or vomiting (mostly in children)
	Abdominal (gut) cramps (mostly in children)
	Diarrhea (mostly in children)

Transmission (how influenza spreads)	*Most commonly spread through the air by coughing, sneezing, or talking.*
	Can also be spread by touching something with the virus on it (like a table or door knob).
	Can be spread by people who have no symptoms but are infected.
	Spreads fastest in crowded places, especially indoors.
	Enters the body through the nose, mouth, and eyes.

Treatment (most likely at home)	*Rest in bed.*
	Drink plenty of fluids.
	Eat plenty of healthy foods.
	Simple treatments or medicine like panadol for fever, sore throat, discomfort (but never give aspirin to children or teens).
	Pneumonia (infected lungs filled with liquid) is common during an outbreak and may need to be treated with antibiotics. Healthcare providers will follow guidelines for recognizing this dangerous problem and how to treat it.
	Babies should continue to breastfeed.

History tells us that…	*Over the last 300 years, about three influenza pandemics have occurred per century. In 1918, tens of millions of people died.*
	Local outbreaks last about 6–12 weeks.
	Outbreaks may happen several times in each place (waves) over 1–2 years.
	A pandemic can seriously overload the health system, which means that influenza and many other illnesses must be treated at home.
	Services may be interrupted when many are sick, including police, water, electricity, food supply, telephone, and so on.
	Outside help may not be available because many people are sick everywhere.
	Some families may need community help if all caretakers in a home become sick.
	Schools, public transportation, and more may need to close during the outbreak.
	Pregnant women are at high risk of serious sickness.

Questions about birds	Are avian influenza and human influenza the same thing? *NO. Human influenza is not avian (bird) influenza. This spreads from person to person. The risk is from people, not birds.* Human pandemic influenza is NOT avian influenza.
	Can we keep chickens, ducks, or other birds during a human influenza outbreak? *Answer: Yes. All of the hygiene messages you know about poultry are still important—for example, keep birds out of the house, wash your hands after killing birds, cook them well, and so on.*
	Is it safe to eat poultry (chickens, ducks, birds) during a human influenza outbreak? *Birds and poultry are still safe to eat and important sources of nutrition.*

Participant questions	***Note to trainer:*** *Answer the questions that you can, placing them in the appropriate category, if possible.* IF you cannot answer a question, be honest! Tell the group you will find the answer if possible, and get back to them on it.

OVERVIEW

WHAT IS PANDEMIC INFLUENZA?

WHAT IS PANDEMIC INFLUENZA AND WHERE DOES IT COME FROM?

An influenza pandemic happens when a new influenza virus moves from birds to people. Next, it spreads quickly around the world, from person to person. Because the virus is new, the human body does not know how to fight it, so it is much more dangerous than normal influenza (***seasonal influenza***). In past outbreaks, many people died. No vaccine is available for pandemic influenza at this point.

IS PANDEMIC INFLUENZA COMING TO OUR REGION?

Note to Trainer: Your answer to this question will depend on the whether the World Health Organization has declared that pandemic influenza has broken out and is spreading around the world.

If an influenza pandemic has been declared, tell the trainees that pandemic influenza is currently spreading around the world, from person to person, and will most likely come to this community. Everyone needs to prepare for this disaster. Preparing means planning (i) how to slow down the spread of influenza; (ii) how to help those who get sick; (ii) for healthcare and medication supplies to treat other illnesses; (iv) for possible problems with the systems that supply food and water, law and order, and electricity; and (v) for what might happen to people's ability to earn money.

SYMPTOMS

Influenza attacks the respiratory (breathing) system and can have one or more of the following signs:

- fever
- muscle aches and pains
- fatigue (tiredness)
- headache
- cough
- sore throat
- sneezing
- runny or stuffy nose

Also, some people, especially children, may have:

- nausea or vomiting
- abdominal cramps
- diarrhea

TRANSMISSION

Most influenza is spread through the air by being close (within one meter, or three feet) to sick people who are coughing, sneezing, singing, or talking, or who have contaminated the surfaces around them.

It can be spread by people who have the virus, but do not feel sick yet.

Influenza may spread by touching infected persons, or by touching contaminated things or surfaces. (The virus can live outside of the body for up to two days).

Most influenza is spread in local outbreaks that are 6 to 12 weeks long. Each location may have one, two, or three waves of these local outbreaks, over the course of up to two years.

WHO IS IN THE GREATEST DANGER?

Pregnant women will probably be in the greatest danger from pandemic influenza. They should not care for, or be in contact with, anyone who may have the influenza. Other groups who are likely to be at increased danger are babies, old people, and people with ongoing diseases, including HIV and tuberculosis. But we cannot know for sure until the pandemic begins because this influenza virus will be new to the world.

WHAT SHOULD PEOPLE DO IF AN OUTBREAK IS SEVERE?

Stay away from public places: Prevention behaviors slow down the spread of influenza, but nothing will completely stop it. Even when sick people stay home, influenza will be spread by infected people who do not yet know that they are sick. The best way to be safe is to stay at home (or where you are currently staying), in contact with as few people as possible.

WHERE WILL SICK PEOPLE GET CARE?

Health centers, dispensaries, clinics, pharmacies, and hospitals will probably be overloaded with sick people. Therefore, families will have to take care of most sick people at home.
It will be important to save the hospital space for the very sickest people.

The good news is that many of the most important care methods can be provided as well at home as in the hospital. Community health responders may be able to visit and provide care and information to people at their homes (or wherever they are staying). Only people who are dangerously ill (those who cannot breathe, cough blood, or have other serious symptoms) should go to the hospital.

By ensuring that most sick people are cared for at home, we can help slow the spread of the disease and save limited hospital space and resources for those who are the most severely ill.

WHAT IS THE BEST CARE FOR A SICK PERSON?

Separate the sick person from others as much as possible, with only one caretaker. (We'll learn more about this later.)

Keep the sick person resting quietly and comfortably.

Prevent dehydration (not enough water in the body). This can be serious. Have them drink liquids regularly at the first signs of the influenza.

Unless a fever is dangerously high, let it be. Remember that fever is a sign that the body is fighting the infection. It will go away as the patient gets better.

Basic drugs such as ibuprofen, paracetamol, acetaminophen, or other measures, as recommended by a health worker, can help with fever, sore throat, and aches. *Never give aspirin to babies, children, or teenagers.*

Pneumonia (infected lungs filled with liquid) often develops as a result of influenza. Look for symptoms (including rapid breathing) and treat or refer as recommended, which may include the use of antibiotics.

Seek help for people who cannot breathe or do not wake up.

CAN OUR ACTIONS MAKE A DIFFERENCE? HISTORY SAYS YES.

In the serious influenza pandemic of 1918, many people in the United States of all ages died. Health, telephone, and other systems sometimes stopping working altogether. Families that were hit hard were often too sick to go out for food or even care for their children. If a health worker or volunteer did not come to their homes to check on them and care for them, they sometimes died for lack of help.

Two cities in the United States, Philadelphia and St. (Saint) Louis, handled the outbreak very differently—with very different death rates as a result.

Philadelphia was slow to use ***social distancing*** methods, like closing schools and banning public gatherings, and was slow to direct the public in methods for separating the sick and in other infection prevention behaviors.

St. Louis acted very quickly and implemented its bans and closures for much longer than Philadelphia, for a total of about 20 weeks. The rate of excess death was less than half as much as the rate in Philadelphia.

To give an example of the difference, if Philadelphia had been a town of 10,000 people, 75 people would have died as a result of the dangerous influenza. If St. Louis had also been a town of 10,000 people, only 36 people would have died. However, these communities were much larger than that—so imagine a huge number of deaths that might have been prevented in Philadelphia if that city had acted more quickly and for a longer period of time.

Philadelphia's deaths were so overwhelming that city leaders were forced to bury people in mass graves, using construction equipment. St. Louis never reached that level of crisis. At the worst point, Philadelphia had eight people dying for every one person who died in St. Louis.

The point of this story is that municipal-level actions can make a big difference and prevent the spread of pandemic influenza. Nearly 100 years later, St. Louis is still known and respected for this amazing achievement. Let's all aim to plan and prepare together and follow the example of St. Louis.

POST-TRAINING TEST

Name: _____

Define (give the meaning of) "Pandemic"
Define "Avian Influenza"
Define "Virus"
Define "Pandemic Influenza"
How will people know if pandemic influenza is spreading around the world?
List at least five symptoms of influenza. (We've learned seven today.)
List two symptoms of influenza that are more common in children
Name the two main ways influenza spreads from person to person.
Do all people who have the virus and can spread it (all those who are infectious) seem to be sick?
What are the locations in your community where pandemic influenza might spread quickly? Why?

If someone is sick with influenza, list the four main treatments that can help them get better.
Should babies with influenza continue to breastfeed?
When a pandemic influenza outbreak comes to a community, about how many weeks will it probably stay? a. 1 week b. 2–3 weeks c. 6–12 weeks
How many times might the pandemic influenza break out in a community (waves) over several years, until it is gone for good? a. 1–3 times b. 5–7 times c. More than 10 times
We know that if many people get sick, basic services might stop working. Give three examples of the services that might not work.
Who is most likely to get very sick or die of pandemic influenza?

PRE-TRAINING TEST

Read these questions aloud to participants and fill out this pre-training test form. Randomly ask people who raise their hands to tell everyone the answer.

SESSION II: SPREADING THE WORD: PREVENTIVE MESSAGES ABOUT INFLUENZA			
Question	Number of participants who raised hand: YES	Number of participants who did not raise hand: NO	Percentage answering YES*
Do you know any of the four most important flu-fighting behaviors for preventing the spread of pandemic influenza?			
If YES, can you describe key actions for these behaviors?			
Should everyone in the community use a mask during an outbreak?			
If not everyone, then do you know the two groups that should use masks, and when they should use them?			
Does your community have a plan to communicate during an emergency?			
If YES: can you name two people who are involved with this plan, and what their responsibilities are?			
Does your community have a plan for identifying all members of the community and reaching out to those who need help most during an emergency?			

*First, divide the number of YES answers by the total number of participants. Next, multiply your answer by 100. For example, if 10 people answer YES out of 20 total participants: 10 divided by 20 is 0.5. and 0.5 times 100 = 50. So, the answer is 50 percent.

THE FOUR FLU FIGHTERS (AND A WORD ABOUT MASKS)

Separate the first four boxes below into four handouts, with each flu-fighting behavior on one page.

COVER YOUR COUGH AND SNEEZE

Most people catch influenza by breathing in tiny droplets that are in the air. They get into the air when a person with the virus talks, coughs, spits, sings, or sneezes. A person can have the virus for several days before they feel sick, so you cannot tell who has the virus. These droplets can also land on hands, clothes, and surfaces where they can survive for several days. They then stick to a person's hand and enter the body when the person touches his or her eye, nose, or mouth.

A key to flu fighting is to cover coughs and sneezes with something. You can cover them with a single-use tissue, a cloth that you can wash or throw away after using, or a mask. This prevents the virus-filled droplets from going into the air and into someone's lungs or onto surfaces where they can be picked up.

How to...Cover your Cough and Sneeze

Coughs and sneezes should be covered with a single-use tissue or cloth that can be washed frequently, preferably immediately after use. If these are not at hand, use your upper arm sleeve—bring your elbow up to your face. You can also keep from spreading the droplets by wearing a mask if you are sick.

Wash your hands after coughing or sneezing.

Clean surfaces regularly with soap and water (or other household cleaners) to avoid self-contamination. Self contamination happens when you give yourself the virus by touching your mouth, nose, or eyes with hands that are contaminated with the virus.

See page 47 for information about masks.

WASH YOUR HANDS

Frequent handwashing is an important way to protect yourself and to stop the spread of many sicknesses. Handwashing is especially good at preventing the spread of the kinds of sicknesses that move from person to person through breathing out infected air and through diarrhea. Coughing or sneezing, contact with human waste, or contact with a surface that has a virus or germ on it can get the virus, or germ, onto hands, clothes, or surfaces for several days (tables, doorknobs, handles, plates, cups, and so on). Handwashing keeps those viruses or germs from getting into your body when you touch your eyes, nose, or mouth.

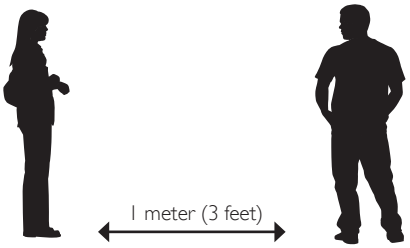
If hand sanitizer is available, it can be used in place of handwashing.

How to...Wash Your Hands

Wet hands and then apply soap. Actively rub hands, including all surfaces of hands and fingers, for at least 15 seconds. That means that you should wash them for about as long as it takes to slowly sing a short song like "Happy Birthday." Rinse. If locally appropriate, drying hands with a disposable paper towel is also recommended.

Wash your hands before preparing or eating food; after using the toilet or changing or cleaning children; after coughing, sneezing, or blowing your nose; before and after all contact with sick patients; after cleaning or handling a patient's dirty sheets, towels, clothes and waste; and after handling animals or animal waste.

It is very important to keep a good supply of soap and water for washing. If there is no soap, ash can be used.



KEEP YOUR DISTANCE

Influenza spreads from person to person through tiny droplets in the air that are breathed out through talking, shouting, coughing, sneezing, and singing. This means that flu spreads most easily when people are close together or in crowded places (like markets and buses).

How to...Keep Your Distance

Stay ***at least*** one meter (about three feet) away from other people.

Avoid crowds and groups of people.

Limit your travel.

Stay at home or work from home, as possible.

SEPARATE SICK PEOPLE

During an influenza outbreak, the health system will be too full. *Most sick people will have to be cared for at home (unless they are having trouble breathing).* To avoid spreading the virus, sick people should be kept away from other people, even those in their own families, as much as possible.

It can be hard for some adults to agree to stay home if they feel that they must go to work. However, sick people should stay home and apart from others as soon as symptoms develop and should not have close contact with others.

A person is considered sick if he or she has one or more flu symptoms.

How to...Keep Sick People from Infecting Others

If possible, the sick person should stay in one room or area by him- or herself.

Only one family member should have the job of caring for the sick person.

Who is the best choice to care for the sick? If someone in the family has recovered from pandemic influenza, that person *might* be protected from getting it again so would be a good choice. The caregiver should definitely not be a pregnant woman. If possible, the caregiver should not be an elderly person or someone with a chronic illness like HIV or tuberculosis. Children should always stay away from sick people.

The sick person should wear a mask or scarf when the caretaker or any other people are within two meters or should carefully cover all coughs and sneezes with a sleeve, cloth, or tissue.

When possible, open windows and doors and use fans to encourage possibly contaminated air to blow outside.

Sick people should wear a mask or scarf if they are sent to a health provider or facility as a result of very serious symptoms (i.e., trouble breathing).

Caretakers, health responders, and all people should wear a mask or scarf when within one meter of the sick person.

The sick person should not share toothbrushes, cigarettes, eating utensils, drinks, towels, sheets, or blankets with others.

The caretaker should use household cleaning products to clean the patient's clothes, bedding, towels, and other laundry; eating utensils; and surfaces in the home that may be contaminated by the sick person's fluids, including any cloths, objects, or surfaces that may have been contaminated by moisture from coughing or sneezing. If possible, the cleaned objects should be dried in the sun. Sick people should not leave their homes until they recover. When exactly is it safe to go out again? No sooner than five days after becoming sick. Experts will tell us more about this timing after the pandemic hits.

Once a person has fully recovered, he or she should feel confident to return to work. Recovered individuals are not more likely to catch influenza again—in fact, they may be less likely, and may want to consider community volunteer work.

WHEN TO...GO TO THE HOSPITAL

A community health worker may be available to help families make this decision. The health workers will keep a very close eye on *high-risk groups,* such as pregnant women, babies, old people, and people with chronic medical conditions. Anyone who develops serious bronchitis, pneumonia, dehydration, or worsening of a pre-existing illnesses may need to go to the hospital. Danger signs include difficulty breathing, fast breathing, or bluish color to the skin or lips; coughing blood; an inability to talk or understand others; severe pain in the chest; convulsions (uncontrollable shaking); or relapse (getting worse after getting better). A child younger than two months old who is very sick may also be in danger.

A WORD ABOUT MASKS

Scientists are not sure how helpful masks will be during a pandemic. Once the pandemic begins, more information will be available on the use of masks. For now, here is what is known:

Wearing a face mask may help lower the chance of catching influenza in certain situations. However, *masks do not protect a person as well as the four flu fighters* and the avoidance of crowds.

The danger of masks is that they might make people feel safer than they really are; masks do ***not*** provide complete protection against catching influenza.

When a person is sick, he or she should wear a face mask (or thick, tightly tied cloth) when others are nearby.

A caretaker of a sick person should wear a mask when close to the sick person.

Masks should not be shared or touched after use, and should be replaced regularly.

If a hospital-type mask is not available, a homemade mask may work, but not as well—and maybe not at all.

Reusable masks can be thoroughly washed with soap and water, and should be dried in the sun if possible.

If a person must go to a crowded place, a face mask may help protect a person from other people's coughs and sneezes *and* may protect others from the coughs and sneezes of the person wearing the mask.

Go to www.cdc.gov/ncidod/EID/vol12no06/pdfs/05-1468.pdf to read instructions for making a thick, tightly fitting homemade mask. Warning: homemade masks provide less protection than a hospital mask, and maybe no protection at all.

POST-TRAINING TEST

Name: _____

1. List the four flu-fighting behaviors and three key actions of each.

	Flu fighter	Three key actions of each behavior
1		
2		
3		
4		

2. Should the following people use masks during a pandemic influenza outbreak?

	Use a mask? Yes or no?	If yes, when?
Sick person		
Health worker		
All community members		

3. How does a mask help prevent the spread of influenza?

4. Which provides greater protection—a mask or the flu-fighting behaviors?

☐ Mask ☐ Flu-fighting behaviors

5. Does a homemade mask provide as much protection as a hospital mask? Why or why not?

6. Which people or groups in your community are at most risk during an emergency? Why?

7. Does your community have a community communication plan? How will people receive the information?

8. What is ***your*** role or job in the community plan?

9. What do you think are the strengths of this plan?

10. What do you think needs to be improved in this plan?

11. Any other comments or suggestions?

PRE-TRAINING TEST

Read questions aloud to participants and fill out this pre-training test form.
Randomly ask people who raise their hands to tell everyone the answer.

SESSION III: INFECTION CONTROL FOR COMMUNITY HEALTH RESPONDERS				
Question:		Number of participants who raised hand: YES	Number of participants who did not raise hand: NO	Percentage answering YES*
1. As a community health responder, are you at risk for catching pandemic influenza?				
2. If you are pregnant, should you work as a community health responder? Why or why not?				
3. Name the common parts of the body where a virus enters.				
4. List the four flu fighters:	1.			
	2.			
	3.			
	4.			
5. Do you understand how masks protect you?				
6. Do you know when during your workday you should use a mask?				
7. Do you know how gloves can protect you from infection?				
8. Do you know when during the workday you should wear gloves?				
9. To protect yourself and others, when should you stay home from work? For how long?				

* First, divide the number of YES answers by the total number of participants. Next, multiply your answer by 100. For example, if 10 people answer YES out of 20 total participants: 10 divided by 20 is 0.5. 0.5 times 100 = 50. So, the answer is 50 percent.

INFECTION CONTROL WINDOW LECTURE CONTENT

THE FOUR FLU FIGHTERS

There are several simple things you can do that can greatly reduce your risk of infection. Some of these are the same flu-fighting behaviors that everyone in the community should do during an influenza outbreak. And some of them are specially designed to protect health responders as they do their work.

Scientists have pinpointed the four most important behaviors that all people in the community should do during an outbreak. These are:

THE FOUR FLU FIGHTERS
Cover Coughs and Sneezes (with elbow, tissue, cloth, or mask)
Wash Your Hands (frequently, in the recommended manner)
Keep Your Distance (stay at least one meter away from others)
Separate Sick People (keep them away from others as much as possible)

The first thing you should do when visiting any home or community location is to teach these behaviors to everyone, in a clear and respectful manner. You can explain that they are for everyone's protection.

WHAT ARE THE MOST POWERFUL WAYS TO PROTECT YOURSELF?

Now, let's talk about how those behaviors relate to infection control in the workday of a community health responder during an influenza outbreak.

PROTECT YOURSELF FROM OTHERS' COUGHS AND SNEEZES

- Ask those around you to cover their mouths and noses, when coughing or sneezing, with their elbows or single-use (disposable) tissues if available. (If they use a tissue, be sure they put it in a trash can. Handkerchiefs should be washed often and dried well, in the sun if possible.)

HANDWASHING

- This simple action will protect you time after time by removing influenza virus that has gotten onto your hands.
- The recommended manner for effective handwashing is as follows: Wet hands and apply soap. Actively rub hands, including all surfaces of hands and fingers, for at least 15 seconds. That means you should wash them for about as long as it takes to slowly sing a short song like "Happy Birthday" (or a culturally appropriate song). Rinse. If locally appropriate, drying hands with a disposable paper towel is also recommended.
- If a hand sanitizer is available, you can use that instead. Rub the sanitizer all over hands until dry.
- After every visit with a sick person, you should wash your hands.
- Also wash your hands whenever you have a chance throughout the day.

KEEP YOUR DISTANCE

- Whenever possible, stay at least one meter (about three feet) away from other people. This keeps you far from droplets that come out when people talk, sneeze, cough, sing, or shout.

MASKS

- People with symptoms and caretakers (including ***you***) should wear masks.
- If there is a shortage of masks, the sick person should get first priority.
- When you are within one meter of a sick person, wear a mask.
- If no mask is available, cover your nose and mouth with a homemade mask or cloth tied tightly around your head—but ***remember*** homemade masks don't work as well, or at all. Act accordingly.
- If the mask is disposable, throw it away carefully and properly where no one will handle it again. If it is reusable, wash the cloth in soap and water and let dry completely, preferably in the sun.
- Always wash hands after handling a used mask or face cloth.
- Carry a bag or something else in which to store used masks until they can be cleaned. Treat the bag as if it is contaminated as well.
- Ask the patient to wear a mask or to cover their nose and mouth with a cloth while you are visiting.
- Homemade masks may help, but do not protect as well—and maybe not at all, especially if made with one layer of material. (Instructions for making a substantial mask are provided here: http://www.cdc.gov/ncidod/EID/vol12no06/pdfs/05-1468.pdf.)

GLOVES

- If you have a supply of medical gloves, use them when coming into contact with sick people's bodily fluids, blood, or respiratory fluid (mucus, or moisture, produced by sneezing or coughing).
- Throw away gloves properly where no one will handle them again.
- Wash hands after taking off gloves and disposing of them.

DON'T TOUCH!

- Avoid touching sick people, except when necessary during examination.
- Avoid touching your own face. Why? Because the nose, mouth, and eyes are the places where the virus enters the body.

BE CREATIVE!

- Can you avoid entering a household by using the phone instead, or by meeting with the family at the edge of the yard?
- How else can you prevent infection? Remember—you are protecting those you visit as well as yourself by using these practices.

CARING FOR YOURSELF—AND PREVENTING THE INFECTION OF OTHERS

- During an outbreak, you may feel that you have no time to rest or eat properly—but if you become weak and exhausted, you will not be able to do your work ***and*** you may be more likely to catch influenza. So for everyone's benefit, be sure to care for yourself too!
- If possible, take your temperature twice a day. *If you have a fever greater than 38°C: stay home and take antiviral medicine, if available.*
- Watch for symptoms, including fever, cough, body ache, sore throat, feeling unwell, "runny" nose. *If you have a symptom, stay home for 48 hours,* following the flu-fighting guidance.
- *Stay home until you no longer have symptoms.*
- *If you develop influenza, take antiviral medicine,* if available.
- This—and all of the guidance you learn here—may be updated by health authorities during an outbreak. New guidance released during an outbreak by authorities like the World Health Organization or the Ministry of Health in your country should take the place of this material.

PROPOSED INFORMATION FOR USE ON FLIPCHARTS OR IN A COMPUTER PRESENTATION

Slide 1:

Health Responder Infection Control:
A Work Day during an Influenza Outbreak

Slide 2:

"I had a little bird
Its name was Enza
I opened the window
And in-flew-Enza."

Slide 3:

Community-Based Infection Control:
The Four Flu Fighters:

- Wash your hands
- Cover coughs and sneezes
- Keep your distance (minimum one meter)
- Separate sick people

Slide 4:

Protect Yourself from Coughs and Sneezes

- Ask everyone to cover coughs and sneezes
- Used tissues should go in a trash can

Slide 5:

Handwashing

- Gets virus off of your hands
- Wet hands ~ soap (and sing) for 15 seconds ~ rinse ~ dry
- After every visit and throughout the day

Slide 6:

Keep Your Distance

- Stay away—at least one meter (three feet) away
- This protects you from droplets as people talk, sneeze, cough, sing, and shout

Slide 7:

Masks

- Ask sick people to wear masks when you are near
- Always wear masks near sick people
- Wash your hands after throwing your mask away
- A homemade mask may be better than no mask—or it may not be
- If reusing your mask, wash and dry the mask thoroughly and wash your hands afterwards

Slide 8:

Gloves

- If available, use gloves when touching human fluids, including items that may have been sneezed or coughed on
- Throw gloves away where no one will touch them
- Wash hands after removing gloves

Slide 9:

Don't Touch!

- Avoid touching sick people, except when necessary
- Avoid touching your own face and eyes
- Avoid touching possibly infected surfaces, doorknobs, handles, and so on

Slide 10:

Avoiding Infection—Think about It!

- At each home, ask yourself—do I really need to go inside?
- Can I speak from the edge of the yard?
- Can I call the patient on the telephone instead?
- Are the windows and doors open for ventilation?
- Can I keep the exam and visit brief?
- Plan your words: For your protection and mine, we need to … stay apart, talk outside, and so on.

Slide 11:

Protect Yourself and Others

- Stay home if you have a fever or other symptoms of influenza
- Return to work when you no longer have symptoms

GUIDED VISION SCRIPT

You may need to change this script to fit the setting in which your participants work—for example, a city or a crowded slum. This is written to describe a village or rural setting.

Instructions: Read the following script aloud slowly, in a soft (but clear) and soothing voice, to participants. Pause at times. Ask them to remain quiet during the exercise. There will be a discussion afterwards.

Read aloud steps 1–5 below, other than instructions in italics and parentheses:

1. Sit back and relax. Take your shoes off if you would like. Do whatever you'd like to make yourself comfortable.
2. Close your eyes and take 10 deep breaths.
3. During this exercise, keep your eyes closed and try to picture what I am describing as it might really happen in your life. Use all of your senses: imagine what you would see, hear, smell, feel, and even taste. Don't worry if you have trouble picturing all of this—just gently keep trying.
4. Think of what we have just learned about handwashing, keeping your distance, avoiding coughs and sneezes, using masks and gloves, avoiding touching sick people and your face and eyes.
5. Now, imagine that influenza has broken out in your community. It is morning and you are having breakfast. You are getting ready to go out for the day to visit sick people. What are you having for breakfast? How does it taste? Are you hungry?

   It is time to go. You are gathering what you need for the day. Your usual supplies are ready. Perhaps you will have additional supplies to treat sick people—but you'll learn about those later.

   Now, pack your infection control supplies. What do you need? *(Pause for 20 seconds.)*

   Do you have any masks for yourself and for sick people you visit, or homemade masks? A storage bag for dirty masks? Do you have soap, in case a home you visit has none? Gloves? Picture gathering these supplies—enough for a whole day. What will you pack them in?

   Make your way to the first house of a person who has influenza. What does the house look like? What do you hear? What do you smell? A man comes out of the house to greet you and tell you about the situation. He sneezes. Does he cover his mouth and nose? What do you do? *(Pause for 20 seconds.)*

   Now two children run from the house toward you, to give you a hug. They have been crying because their mother is sick. What happens next? *(Pause for 20 seconds.)*

   Where and how will you wash your hands?

   It is time to check on the sick person. She is your cousin, alone in a bedroom. She looks sick and scared. There is a cloth on the table by her bed. She reaches out to you for comfort. How do you greet her? *(Pause for 20 seconds.)*

   It is time to talk to her about her sickness, and give her skin a gentle pinch to check for dehydration. What do you do to protect yourself from infection? *(Pause for 20 seconds.)*

   Now, you have treated her and given her counseling and guidance. She looks comforted, and she is determined to get better. A mosquito lands on your cheek. What do you do? *(Pause.)*

   After you leave the room, the family is waiting in the main room for you. They offer you food and drink. What do you do next? *(Pause for 20 seconds.)*

   Now it is time to go. Walk back to the road. Do you think you protected yourself? Is there anything you missed? Try to remember as many details as possible for the discussion. *(Pause for 20 seconds.)*

   Open your eyes. Welcome back!

6. *Discussion.* Lead a discussion about each point below. People will have visualized different scenes or actions, which is fine. The important theme is how to use infection control during a visit, and how to plan ahead of time to be successful, following the points taught during the lecture.
   - Be sure to take enough time to consider the cultural aspects of each action—for example, in some cultures refusing an offer of food is extremely rude. What are effective ways to handle such conflicts between social behaviors and infection control guidelines?
   - During these discussions, role plays may be helpful as needed.

Tell participants: I am going to tell you where the influenza virus was during that scene. Let's see if you avoided it. Close your eyes each time we re-envision parts of the visit, and try to remember exactly what happened.

a. In the yard, the man has influenza, but doesn't know it yet. When he sneezed while you were talking, he blew out infected droplets. Were you standing two meters away from him?
b. Key discussion points: Keep your distance. Ask man to cover coughs and sneezes always, including during your visit.
c. One of the children who came to hug you had the virus on one hand, which he picked up while touching the table by his mother's bed. Did he touch you? What did you say to the children?
d. Key points: Keep your distance. How to handle the emotional aspect of this practice.
e. Suggestion: Could you make a game of hugging without getting close to each other? Air kissing?
f. Your cousin is highly infectious. She sneezed into her hands just before you arrived. Her hands, her blanket, and the table by her bed have the virus on them. How did you greet your cousin? How did it feel not to be able to go close to her or touch her when she reached out to you for comfort? What did you say?
g. Key points: Keep your distance. Be prepared to handle social and emotional aspects of this situation.
h. To approach your cousin, and to examine her, what did you do?
i. Key points: Wear a mask. Ask her to wear a mask or cover mouth and nose with the cloth by the bed. Only touch her as necessary. Avoid touching the bedding, the table, and yourself. Wear gloves if possible.
j. What did you do when the mosquito landed on your face?
k. Key point: Avoid touching your face.
l. As we now know, the husband waiting for you in the main room is infectious. There is some virus in this room, including on the eating utensils, which have not been cleaned well because the mother is sick.
m. Key points: The room was probably too small for you to keep your distance, and the surfaces were infected, so you should have led the group outside to talk there. How did you dispose of your mask, and maybe gloves? If you will take a homemade mask home for washing, what did you put it in for carrying? (Don't throw things away where the children might play with them.) Washing hands—how was that possible? What was the water supply? Was there soap? How did you handle turning down the food and drinks, which might feel rude?
n. Last question—was there a gate at the edge of the yard? If so, I hope you didn't touch the handle! It's got the virus on it!

POST-TRAINING TEST

Name: _____

1. As a community health responder, are you at risk for catching pandemic influenza?	
2. If you are pregnant, should you work as a community health responder? Why or why not?	
3. Name the common parts of the body where a virus enters.	
4. List the four flu fighters:	1.
	2.
	3.
	4.
5. How do masks protect you?	
6. When should you use masks?	
7. What is a danger of homemade masks?	
8. How and when can the use of gloves help you during your work?	
9. To protect yourself and others, when should you stay home from work? For how long?	
10. What else do you want to know or discuss?	

SOURCES

- AMC Cancer Research Center and CDC (U.S. Centers for Disease Control and Prevention). 1994. *Beyond the brochure: Alternative approaches to effective health communication.* Denver, CO: AMC Cancer Research Center. http://www.cdc.gov/cancer/nbccedp/bccpdfs/amcbeyon.pdf (accessed June 1, 2009).
- Community Tool Box. n.d. The community tool box. http://ctb.ku.edu/en/ (accessed April 10, 2009).
- HHS (U.S. Department of Health and Human Services). 2008. Interim guidance on the use and purchase of face masks and respirators by individuals and families for pandemic influenza preparedness. Draft document. http://aspe.hhs.gov/panflu/facemasks.html (accessed April 10, 2009).
- HHS, NIH (National Institutes of Health), National Cancer Institute. n.d. *Making health communication programs work (the pink book)*. Revised edition. www.cancer.gov/pinkbook (accessed February 25, 2009).
- IFRC (International Federation of Red Cross and Red Crescent Societies). 2008. *A standard style for International Federation English.* Geneva: IFRC. http://www.caribbeanredcross.org/disasterm/downloads/eng-styleguide-mar08.pdf (accessed June 1, 2009).
- Markel, H., et al. 2007. Nonpharmaceutical interventions implemented by U.S. cities during the 1918–1919 influenza pandemic. *Journal of the American Medical Association* 298(6): 644–654.
- Reynolds, B. 2006. *Crisis and emergency risk communication: Pandemic influenza.* Atlanta: CDC.
- Salem, R.M., J. Bernstein, T.M. Sullivan, and R. Lande. 2008. Communication for better health. *Population Reports*. Series J, No. 56. Baltimore, MD: INFO project, Johns Hopkins Bloomberg School of Public Health.
- Salem, R. M., J. Bernstein, and T. M. Sullivan. 2008. Tools for behavior change communication. *INFO Reports*, No. 16. Baltimore, MD: INFO Project, Johns Hopkins Bloomberg School of Public Health. www.infoforhealth.org/inforeports/BCCtools/BCCTools.pdf (accessed October 13, 2008).

TOOL 7

FOOD SECURITY IN A PANDEMIC

This tool will help you to:

- Provide a thorough introduction to staff and volunteers about the key ways in which a pandemic may cause severe hunger and nutrition problems in your municipality
- Understand what local leaders can do to reduce potential food security problems during a pandemic

Who will implement this tool:

- The mayor
- Members of the ***municipal leadership team***, emergency response team, disaster management team, and communications support team
- Lead staff from relevant sectors and agencies of your municipality

This tool will introduce you to the basic elements of food security and ways in which an influenza pandemic may impact it. You will also find measures that can be taken to prevent, alleviate, and respond to many of a pandemic's negative consequences on food security.

WHAT IS FOOD SECURITY?

Food security in a community depends on three main pillars:

- food **availability**
- food **access**
- food **utilization**

Food availability means that enough food is physically present for the entire population. It is in markets and shops, is grown on farms or home gardens, or has arrived as the result of food aid.

> ***Food security*** in a community exists when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for productive and healthy lives.

Food access means that individuals can obtain available food. Households may access food in many ways: growing, buying, and bartering; or through gifts, welfare programs, or food aid. Food access is ensured when households have enough resources, like land, money, or social connections, to obtain nutritious foods in adequate amounts.

Food utilization refers to the way people's bodies are able to use the food they eat. Making the best use of foods depends on proper food storage and processing, overall nutrition and health status, the availability of clean drinking water, and adequate health and sanitation services.

WHAT ARE THE FIRST SIGNS THAT A PANDEMIC HAS AFFECTED FOOD SECURITY?

The global health impact of an influenza pandemic may affect workforces, transportation systems, and supply chains. The impact of the virus in other areas of the world may result in your community experiencing a food crisis even before the influenza virus causes severe health problems in your municipality. Some of the first things that you will notice that indicate a pandemic could cause a food security problem are:

- Industries that rely on import and export are struggling.
- Food supplies are hard to get locally.
- Economic activities are disrupted.

> **DID YOU KNOW:**
> The first sign that a community may experience a food security crisis due to pandemic influenza may NOT be an outbreak of disease.

For more information, see Tool 1, *Priority Actions to Lead Your Municipality Through a Pandemic* and Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic*.

WHO MIGHT BE MOST AT RISK FOR FOOD SECURITY PROBLEMS?

Some groups will be more at risk than others for the food security impact of a pandemic. The most at-risk populations in most emergency situations are those that are already struggling with hunger, health, and poverty. These populations will be at great risk during a severe pandemic. In addition to these groups, many other households are vulnerable to the impact of a severe pandemic because of the way it may affect economic and social systems. Any household that has not taken necessary actions to prepare for a severe pandemic will face greater difficulties in coping with the impacts of spreading disease.

Groups typically at risk in all emergencies	Additional groups at risk in a pandemic
• People with limited or irregular income • People who cannot build up emergency reserves of money or food • People in poor health (especially malnutrition, chronic disease, and compromised immune systems) • Those living with stigma (people living with HIV, prisoners and their families, the mentally ill, the disabled) • The isolated (living in a remote location or having no social network) • The homeless or internally displaced • The elderly • Those with little or no transportation • Orphans and vulnerable children	• Those who rely on markets for the majority of food purchases (experts believe that market systems may be severely impacted) • People without knowledge about how to prepare for a pandemic • Those employed in occupations that may be severely impacted (tourism, restaurants, taxi drivers, etc.) • People who rely on public transportation to get to job • People who migrate for income • Caregivers

For more information, see Tool 8, *Classification of Food Security Risk Locations* and Tool 9, *Identification of People Most at Risk of Food Insecurity*.

THE SUCCESS OF MUNICIPAL EFFORTS TO ENSURE FOOD SECURITY COULD HINGE ON THREE IMPORTANT FACTORS:

- The degree to which the public is informed about the necessity of household and community preparedness
- The capacity of public and private agencies to organize and provide basic services and needed assistance under stressful circumstances
- The degree to which mass confusion, civil disorder, and conflicts over resources disrupt or complicate response efforts

WHY SHOULD MUNICIPAL AUTHORITIES TAKE ACTIONS TO PROTECT FOOD SECURITY RIGHT NOW?

Municipalities can help reduce possible food emergencies by paying close attention to what is happening at the local level in terms of food security. Building community resilience is key to surviving disasters. The way to build resilience is to communicate, plan, prepare, and invest time and money long before a disaster is present in your municipality. Your immediate actions can help reduce the negative impact that a pandemic, or other emergency, may have on the food security of your municipality because:

- By the time you notice food shortages it may be too late to produce more food locally or to expect that national governments or international agencies can get food to you in time.
- Transporting food to your communities will be difficult if transportation systems break down.
- Even if you can get food to your communities, purchasing and stockpiling food to get through a 6–12 week pandemic wave will become very expensive if food prices rise as expected.

WHAT DOES THE MUNICIPAL LEADERSHIP TEAM NEED TO DO?

In many countries food security is handled at the national level. However, during a severe pandemic, national governments may be overwhelmed and may be unable to provide timely assistance to every municipality. The most important thing to do is start planning for your municipality now, in the likely event that your municipality will have to become food self-sufficient for a period of time.

Municipal leaders will want to take the necessary steps to:

- Work with national governments and private sector providers to secure essential food stocks (*food availability*) during successive periods (waves) of 6–12 weeks when normal supplies of food may be disrupted.
- Ensure that the population can obtain the food they need (*food access*), especially the most vulnerable individuals (infants, young children and women, elderly people, homeless people, people living with HIV/AIDS and other chronic illness, disabled people, and homebound individuals).
- Educate the public about the necessity of increased hygiene, nutrition, and safe food and water storage. Work with national and regional governments to reduce malnutrition and other debilitating diseases so that people's bodies can make the best use of the foods they eat (*food utilization*).

REMEMBER!
Effective public messages about local food availability will be critical during a pandemic to provide credibility to "do not flee" messages. For more information, see Tool 12, *Fundamentals of Communication During Crises and Emergencies.*

HOW CAN MUNICIPAL LEADERSHIP PROTECT FOOD SECURITY?

A wide range of actions can support and protect food security in a pandemic. Most of these responses depend on early planning, which is why *preparedness* is so important. After considering a range of responses, the municipal leadership team should determine which actions best suit the local context. You may find that many of these responses are also appropriate after the pandemic, during the recovery period.

The charts on the following pages describe conditions in a municipality that could impact food availability, food access, and food utilization. Each chart provides a menu of potential responses to consider based on the conditions of your municipality. The chart also suggests the stage of the pandemic where these actions will be most helpful.

Tools which offer more guidance on how to put these actions into place are listed in the last box of each of the three charts (availability, access, and utilization).

The overall challenge for local leaders is to guarantee enough nutritious food for each community as well as fair distribution of that food for several months at a time. This means that after each wave, food stocks need to be replenished before the next wave arrives.

POTENTIAL FOOD SECURITY ISSUES AND ACTIONS DURING A PANDEMIC

Conditions that Could Cause *Food Availability* Problems	**Actions to Reduce Potential *Food Availability* Problems**	**Timing of Support**
• Restrictions on transportation and disruptions in the markets may quickly create shortage problems	• Educate the public about the critical need to prepare for food shortages at the household level: - Promote stockpiling, home production, canning, and food preservation	Before pandemic Early pandemic
• Many communities (especially urban centers) rely on markets, with limited home food production and/or processing • Local production/harvests are insufficient to begin with • People are not able to work because they are sick, which leads to less local food production and smaller harvests	• Increase household and community food production: - Distribute seeds, tools, and fertilizers for small rural farms and urban gardens - Provide local agricultural and livestock extension (technical assistance) services	Before pandemic Early pandemic After pandemic
	• Transport and stockpile basic, high-energy, and high-nutrient foods for the community: - Contact central government representatives to find out about availability and location of national food stocks for emergencies and prepositioned donations from national and international food aid agencies - Purchase extra stock from local and regional food suppliers and growers • Request donations from local retailers	Before pandemic Early pandemic During pandemic After pandemic
• Acquired food spoils due to improper storage	• Take an inventory of public and private storage facilities that could be used for emergency food stockpiling	Before pandemic
• A significant amount of food is committed for sale to other areas outside the municipality	• Restrict the export of locally produced food crops that are necessary to feed the population of the municipality	During pandemic
These are just a few examples. What else might work? For more information, see Tool 11, *Distribution of Emergency Food During an Influenza Pandemic,* and Tool 10, *Household Food Security Preparedness.*		

Conditions that Could Cause *Food Access* Problems	Actions to Reduce Potential *Food Access* Problems	Timing of Support
	• Accurately identify those most at risk	Before pandemic Early pandemic
• Food prices may drastically increase and make many food items unaffordable to those on limited incomes • Shopkeeper bias during times of limited resources may result in people being turned away from markets because of their race, ethnicity, religion, political beliefs, or disability • Households may have less money available to purchase food due to: - reduced income due to illness, care giving, or job loss - more money must be used to pay high medical fees or funeral expenses	• Encourage cooperative sharing/barter of food and resources (while respecting social distancing measures if in place)	Before pandemic Early pandemic During pandemic
	• Organize food voucher programs with local shopkeepers that allow at-risk households to obtain food in exchange for a voucher • Organize fair price shops that sell basic items at controlled prices • Provide food in exchange for assisting in key response areas during a pandemic	Before pandemic Early pandemic During pandemic After pandemic
	• Distribute food to the most vulnerable residents in a way that minimizes contact between people when social distancing measures are in place	During pandemic
• People who live alone may become too ill to physically get to a market or food distribution site	• Deliver food and water to isolated households and individuals	During pandemic
• Those who are able to afford extra food may hoard more than they need	• Initiate widespread public campaigns about the devastating consequences that hoarding can have on at-risk populations—specifically targeted at those who can afford to buy extra, and merchants and traders who may speculate • Determine whether to place purchase limitations on specific products likely to be hoarded	Before pandemic Early pandemic During pandemic
• Merchants and traders seeking higher profits may withhold available food until prices spike	• Implement a price freeze on staple and nutritious food items that form important parts of local diets	During pandemic
• Due to economic disruptions, local shopkeepers may stop offering credit to customers	• Facilitate low-cost credit arrangements with local shopkeepers, medical facilities, and those who provide funeral services • Negotiate short-term debt relief programs (to preserve assets and cash reserves) • Determine whether cash transfer programs are available through regional or central government. If so, provide at-risk households with links to these programs	Before pandemic Early pandemic During pandemic After pandemic
• Producers/distributors may not have the fuel or other means to get available harvests and livestock to central locations	• Provide transportation support that allows producers to get products to market or community food warehouses	During pandemic After pandemic

These are just a few examples. What else might work? For more information, see Tool 9, *Identification of People Most at Risk of Food Insecurity;* Tool 11, *Distribution of Emergency Food During an Influenza Pandemic*; and Tool 19, *Recovery and Resilience.*

Conditions that Could Cause *Food Utilization* Problems	Actions to Reduce Potential *Food Utilization* Problems	Timing of Support
• Lack of knowledge about hygiene, nutrition, sanitation, and proper child feeding practices • Contaminated water may increase intestinal illnesses that will contribute to malnutrition and dehydration; these illnesses will make it more difficult for people to fight off the pandemic virus	• Educate households about the nutritional food requirements of short- or medium-term emergencies like the pandemic • Educate households about water treatment and storage • Educate households about the need for increased hygiene	Before pandemic Early pandemic During pandemic After pandemic
• Power outages could impact safe food storage causing food to spoil • Service outages could affect the ability to properly cook food • People may resort to using unsafe water sources if water shortages occur	• Distribute containers for proper water storage	Before pandemic Early pandemic During pandemic
	• Implement contingency plan to maintain essential services such as water, power, and basic sanitation during a severe pandemic	Early pandemic During pandemic
	• Distribute vitamin supplements	Before pandemic Early pandemic During pandemic After pandemic
• Lack of food variety may prevent people from consuming essential micronutrients	• Encourage households to grow fruits and vegetables to provide essential micronutrients • Assure that municipality-acquired foods for community stockpiles will meet the nutritional energy needs of your populations when they are combined into food baskets for distribution	Before pandemic Early pandemic During pandemic After pandemic
• Widespread illness: malnutrition, HIV, and other debilitating diseases	• Work with national and regional governments to reduce malnutrition and other debilitating diseases so that people's bodies can make the best use of the foods they eat	Before pandemic After pandemic

These are just a few examples. What else might work? For more information, see Tool 16, *Maintenance of Essential Services;* Tool 11, *Distribution of Emergency Food During an Influenza Pandemic;* and Tool 10, *Household Food Security Preparedness.*

FOOD SECURITY IS A MULTISECTORAL CHALLENGE

Food insecurity during an influenza pandemic is not a threat that stands separate from the sectors of health, family welfare, commerce, or governance and public services. Now that you have explored how a severe pandemic may impact each pillar of food security, it is time to examine why the protection of food security must be integrated into all sectors. Key partners may include, but are not limited to, the following:

- Agricultural producers and processors
- Commerce and industry employers
- Labor and farmer associations
- Humanitarian and development nongovernmental organizations (NGOs)
- National emergency management agencies
- Public works and water agencies
- Community leaders and teachers
- Food wholesalers and retail markets
- Transportation companies/associations
- Community-based and religious organizations
- Health centers and hospitals
- Public security agencies

The chart on the following page will help the municipal leadership team understand how the potential problems that a municipality may face in a pandemic are interconnected. It offers some main points to consider as the team begins to prepare for and meet the challenges of a pandemic. It also offers a menu of potential responses to consider based on the conditions in the municipality.

Following the comprehensive one-page chart are expanded sector-specific charts that explain what might happen if a municipality does not prepare for a severe pandemic, and actions that each sector can take to protect food security. Local geography, demographics, economic and social structures, as well as the severity of the virus in the region will determine the specific preparation and response actions most appropriate for each community.

FOOD SECURITY IN AN INFLUENZA PANDEMIC: A MULTISECTORAL CHALLENGE

Sector	**Potential Events** What can happen if the pandemic arrives in full force to the municipality	**Consequences** What might happen if local authorities do not prepare before the pandemic virus arrives	**Preparedness** What you can do before the pandemic virus arrives to reduce death and suffering	**Responses** Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality
			Stay Informed	**Continuously Monitor**
A **Health and Medical Services**	Large numbers of sick and dying people High levels of grief High rates of work absenteeism in all sectors	Increased demand on clinic and hospital services Shortages of medications and supplies Disruptions in essential services resulting in diminished sanitation and shortages of clean water and food	Develop municipal health sector plans Medical supply stockpiling Develop plan to prioritize care Provide training in home and community-based healthcare	Implement measures to limit the spread of the pandemic virus Encourage and support home-based healthcare for those able to be cared for at home Encourage community-based healthcare for sicker persons
B **Family Welfare and Food Security**	Temporary family disability Decrease in household food production, cash earned, childcare, homemaking, and educational activities	Limited or no household income Less food available to eat Less cash available to buy essentials Negative coping strategies used by households to obtain food or cash Social disintegration	Identify the households most at risk of food insecurity Acquire community food stockpiles for later distribution Increase household food stockpiling, production, preservation	Prioritize who gets food transfers Establish small decentralized distribution centers Deliver food to isolated households Encourage barter among households using social distance measures
C **Commerce, Trade, and Travel**	Restrictions on movements of people, goods, and services	Disruptions in food delivery (import, export, and regional trading) Negative economic impacts on households and businesses	Assess all resources Plan to address gaps Create business continuity plans	Implement social distancing Allocate scarce resources Create alternate employment schemes Organize barter and fair trade shops
D **Governance and Public Services**	Strain on public services	Rumors, misinformation, panic Conflicts over public resources	Review national food security plans and resources Develop contingency plans Develop information and communication systems	Keep government running Implement risk/crisis communication to prevent public panic and conflict

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

	Potential Events What can happen if the pandemic arrives in full force to the municipality	**Consequences** What might happen if local authorities do not prepare before the pandemic virus arrives	**Preparedness** What you can do before the pandemic virus arrives to reduce death and suffering	**Responses** Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality
			Stay Informed	**Continuously Monitor**
A **Health and Medical Services**	Large numbers of sick and dying people High levels of grief High rates of work absenteeism in all sectors A need to provide most healthcare in homes or in the community	Healthcare facilities overwhelmed Disruption of local leadership due to death and illness Dehydration due to pandemic illness and/or water shortages Increased non-pandemic deaths due to compromised healthcare service delivery, shortages of medications, or malnutrition Increased medical and funeral expenses High levels of anxiety and uncertainty	Create pandemic continuity of operations plan for health sector Assess the expected health impact and your available resources Training for home- and community-based care Continue health services for life-saving non-pandemic care and diseases Make sure foods acquired for emergency distribution meet nutritional energy needs Educate households about proper water treatment and storage and the need for increased hygiene Provide training in mental health and grief counseling Negotiate low-cost credit for medical and funeral expenses	Implement measures to limit the spread of the pandemic virus Encourage and support home-based healthcare for those able to be cared for at home Encourage community-based healthcare for sicker persons from whom facility-based care is not available or for whom home care is not possible Make direct food transfers to medical facilities Conduct ongoing observation, monitoring, and treatment of child malnutrition Provide psychosocial support and grief counseling

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

	Potential Events What can happen if the pandemic arrives in full force to the municipality	Consequences What might happen if local authorities do not prepare before the pandemic virus arrives	Preparedness What you can do before the pandemic virus arrives to reduce death and suffering	Responses Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality
			Stay Informed	**Continuously Monitor**
B **Family Welfare and Food Security**	Temporary family disability Decreased household food production, cash earned, childcare, homemaking, and educational activities Decreased participation in social and political activities Decreased personal and business transactions	Limited or no household income Less food produced in rural areas Less food available to eat Less cash available to buy essentials Households resort to negative coping strategies to obtain food or cash (e.g. sale of productive assets, hoarding, theft) Foreclosure on debts and loans Social disintegration • collapse of social relationships • emerging pockets of famine • mass migration	Prepare for food shortages Identify households and regions most at risk of food insecurity Encourage households to increase food production, preservation, and stockpiling Distribute short-cycle seeds, provide agricultural extension services Hold community meetings to plan food sharing Encourage households to save a portion of their wages Take an inventory of available food and crops in the municipality Acquire community food stockpiles for later distribution Construct community and household food storage facilities	Prioritize who will receive emergency food rations Distribute food rations to at-risk households using small decentralized drop-off points Encourage barter among households using social distancing measures Provide home food delivery to isolated or ill households Negotiate debt relief and suspensions on foreclosures

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

	Potential Events What can happen if the pandemic arrives in full force to the municipality	Consequences What might happen if local authorities do not prepare before the pandemic virus arrives	Preparedness What you can do before the pandemic virus arrives to reduce death and suffering	Responses Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality
			Stay Informed	**Continuously Monitor**
C **Commerce, Trade, and Travel**	Restrictions on movements of people, goods, and services Limitations on social gathering and travel that affects schools, religious groups, public meetings, family visitation Workforce absenteeism leads to breakdown of commerce and trade that affects food, energy, business inputs and sales, banking, and medical supplies	Market closures Hoarding of food, fuel, and other basic necessities Merchant and trader speculation Food spoilage in fields due to disrupted transportation systems Large quantities of refrigerated foods spoil due to power outages Economic impacts on households and businesses such as inflation, rising unemployment, loss of land and leases, resulting in tenants that have nowhere to live	Assess all resources and plan how you will address gaps Determine the status of supply chains for food, medical supplies, fuel, and other essential goods Organize and initiate local purchases of food stocks and essential goods Identify temporary employment opportunities in key sectors and prioritize public works projects Develop a continuity of operations (COOP) plan	Enforce social distancing measures Set up fair trade and barter shops Develop alternate employment plans Restrict export of locally produced food crops that are necessary to feed the population of the municipality Provide transportation support that allows producers to get products to markets or community stockpiles Mandate a price freeze on staple and nutritious food items that form important parts of local diets Encourage businesses and clients to use the Internet and telephone for transactions

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

	Potential Events What can happen if the pandemic arrives in full force to the municipality	**Consequences** What might happen if local authorities do not prepare before the pandemic virus arrives	**Preparedness** What you can do before the pandemic virus arrives to reduce death and suffering	**Responses** Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality
D			**Stay Informed**	**Continuously Monitor**
Governance and Public Services	Strain on public services Reduced capacity to provide services such as police, justice, communications, water and sanitation, electricity, natural gas, transportation Loss of revenues from reduced collection of fees and taxes	Rumors, misinformation, panic Conflicts over public resources Reduction of basic privileges and rights People are excluded from obtaining necessary survival items due to bias or stigma Civil disorder, including riots over unsatisfied demands, rise in insurgent group activities, vandalism, armed attacks	Review national food security plans and available resources Strengthen local expertise in food security Develop COOP plans Identify services that must be continued • Train and organize volunteer staff to keep these services running in the event that regular staff are ill Develop information and communication mechanisms Develop public awareness programs Develop measures to ensure equal access to food and services Conduct trainings for conflict resolution services Establish procedures for community input and government transparency	Keep government running Implement effective crisis and emergency risk communication to prevent public panic and conflict Continuously share updated information about the municipality's food supply with the population Use volunteer staff to make sure that basic goods and services are provided Provide security services to community food warehouses and distribution centers, and to the transportation services that supply them Provide conflict resolution services using community advocates

SOURCES

- ACDI/VOCA. 2006. *Food Security Needs Assessment Toolkit.* Prepared for ACDI/VOCA by TANGO International Inc., Tucson, Arizona.
- AED. 2008. *Food, nutrition and livelihood preparedness for a pandemic influenza disaster: guidance for low-income countries.* AED/IFRC Working Group 1.
- Department for International Development (DFID). 2000. *Sustainable Livelihoods Guidance Sheets.*
- International Federation of Red Cross and Red Crescent Societies. 2007. *Global food security assessment guidelines.* Geneva.
- Maxwell, Simon and Timothy Frankenberger. 1992. *Household food security: Concepts, indicators, measurements.* UNICEF/IFAD.
- Osterholm, Michael T. 2005. *Preparing for the Next Pandemic. Foreign Affairs.* 84.(4).
- TANGO International. 2002. *Household Livelihood Security Assessments – A Toolkit for Practitioners.* CARE USA, PLHS Unit.
- TANGO International 2007. *Ethiopia: The Path to Self-Resiliency.* Prepared for CHF on behalf of CANGO. Tucson, AZ: TANGO International.
- TANGO International. 2008. *Emergency Food Security Assessment Handbook.* World Food Programme.
- World Bank. 2005. *Keeping Healthy in an Urban Environment.* The Urban Poor in Latin America. Marianne Fay ed.

FOOD SECURITY AND LIVELIHOODS

TOOL 8

CLASSIFICATION OF FOOD SECURITY RISK LOCATIONS

USER GUIDE

PREPAREDNESS RESPONSE

***Before* the pandemic, this tool will help you to:**

- Classify target areas according to the risk of food and livelihood insecurity as the result of a severe pandemic
- Identify areas where you will need to collect more information
- Prioritize preparedness activities
- Prioritize target areas in the municipality for prepositioning of aid

***During* the pandemic, this tool will help you to:**

- Make decisions about the best use of food resources

Who will implement this tool:

- The mayor
- The ***municipal leadership team***

WHAT YOU SHOULD KNOW BEFORE USING THIS TOOL

This tool will not tell you exactly how many people in your municipality will suffer from food or livelihood insecurity during a pandemic. However it can provide you with an estimate of areas within the municipality that will be at highest risk during an influenza pandemic.

It is important to remember that all areas experience some level of risk. This tool provides a measure of the *relative* risk in one area of a municipality in relation to another area in the same municipality. Risk level is classified into three categories: high, medium, and low. The ranking is based on the risk of loss of income and the ability to secure enough food to keep all members of a household healthy during a severe influenza pandemic.

NOTE: This User Guide provides instructions for using the *Classification of Food Security Risk Locations* Excel Tool. For the Excel tool, please refer to the companion CD-ROM of this Toolkit.

HOW WILL THE INFORMATION IN THIS WORKBOOK HELP YOUR TEAM?

This tool will help you to identify geographic areas that could become food insecure during a severe influenza pandemic. Classifying food security risk locations will help your team understand why certain areas should be prioritized for preventative action and response efforts. Another function of this tool is to provide a perspective on the types of preparedness and response activities that may reduce risk and lessen potential impacts on a specific area or population. The tool can also help identify areas where your team may need to gather more information.

HOW TO USE THIS TOOL

ENABLE MACROS

This tool uses Microsoft Excel with the "Macros" function enabled. If prompted, click on "Enable Macros." If you continue to have difficulty in using this Excel tool, please check your security settings.

To classify the risk level of target areas in your municipality follow these steps:

STEP 1: ENTER THE NAME OF THE TARGETED AREA

The first page you see when you open the tool will be a duplicate of the user's guide. Hold the cursor over the button that says "Use this Tool" and click. A questionnaire will open.

Type the name of the targeted area. The targeted area can be a district, a village, or a dense urban zone within a municipality.

STEP 2: ENTER INFORMATION FOR EACH RISK FACTOR INDICATOR

A series of questions ask about various food and livelihood security risk factors indicators. The answers to these questions will help you to identify geographic areas that could become food insecure as a result of a pandemic.

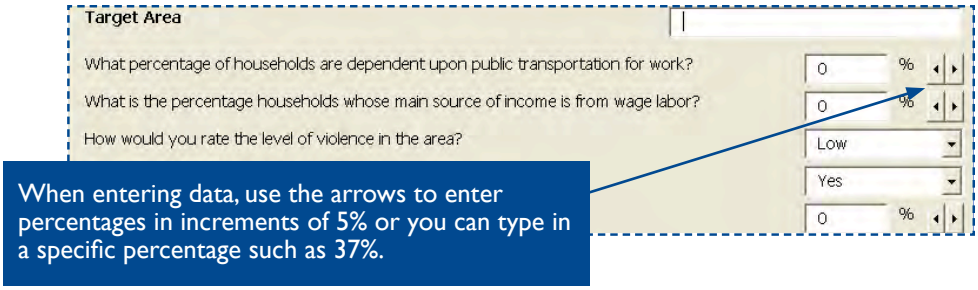
WHERE DO I GET THE INFORMATION TO ANSWER THESE QUESTIONS?

Information sources will include existing data and expert knowledge. Once priority risk areas are identified it will be possible to conduct more detailed food and livelihood security assessments. Guidance on how to do this can be found in Tool 9, *Identification of People Most at Risk of Food Insecurity*.

If these assessments already exist, they are very good information sources. Ideally, all information should be at the chosen target area level. In the event that some information isn't available at this level, the table on the following page lists potential sources for accessing information. Note that the links in the table will direct you to national-level data. This data should only be used if target area information is not available.

For accurate risk classification, it is essential to answer every question on the information entry form, so do your best to find out where you can get the information. However, some information about your municipality may not be immediately available. If this is the case, estimate what you don't know to the best of your ability.

Bear in mind that if estimates are used in place of actual data, the results will be helpful as a graphic/numerical picture to help understand pandemic impact on food and livelihood security, however, these results should only be used for rough planning estimates until more accurate data are gathered within your municipality.



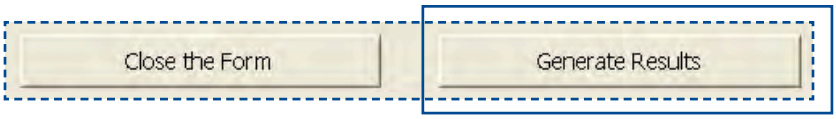
The following table provides possible sources of information that can help you to answer these questions.

Question	Possible Source of Information
What percentage of households must depend on public transportation to get to and from work?	Municipal or national transportation companies
What is the percentage of households whose main source of income is wage labor?	Data on formal and informal wage labor available from municipality and/or national governments
How would you rate the level of violence in the target area? (This is relative to other neighborhoods or villages in the municipality)	Expert local knowledge, police statistics, municipal or national governments
Is the main food market for households in the same targeted area? (Households do not have to travel to distant markets in order to buy food)	Expert local knowledge
What percentage of food that households eat is purchased?	Municipal or national governments
What percentage of household income must be spent on food?	http://www.fao.org/faostat/foodsecurity/index_en.htm
What is the overall poverty rate for this area?	http://websie.eclac.cl/sisgen/ConsultaIntegrada.asp?idAplicacion=1
What is the percentage of stunting in children less than five years old? Stunting means that children are short for their age. It is used as measure of poverty and hunger because it indicates that children have not had their basic food and nutrition needs met during their early years of life.	http://websie.eclac.cl/sisgen/ConsultaIntegrada.asp?idAplicacion=1
What percentage of the population does not eat enough to meet their basic energy needs? You can find out more about basic energy needs in Tool 10, *Household Food Security Preparedness* and Tool 11, *Distribution of Emergency Food During an Influenza Pandemic*	http://www.fao.org/faostat/foodsecurity/index_en.htm (Depth of Hunger)
What percentage of households has access to healthcare? Healthcare includes hospitals, clinics, health posts, private practices, or community health workers.	http://websie.eclac.cl/sisgen/ConsultaIntegrada.asp?idAplicacion=1
What percentage of households has access to improved latrines? Improved latrines includes connections to public sewers or septic systems, flush latrines, and simple covered pit latrines, but does not include public or shared latrines, bucket latrines, or open pit latrines.	http://websie.eclac.cl/sisgen/SisGen_BadeinsoEnlaces.asp http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/statistics.htm
What percentage of households has access to water that is clean and safe to drink? You can find out more about safe drinking water in Tool 10, *Household Food Security Preparedness*	http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/statistics.htm

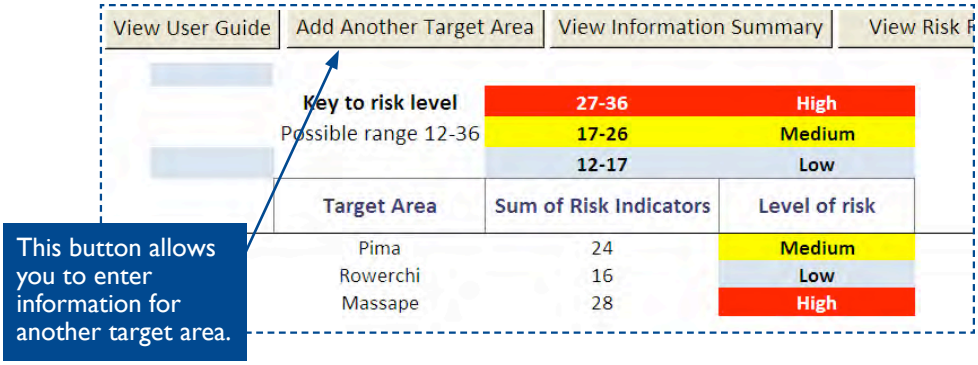
STEP 3: VIEW RESULTS

RISK CLASSIFICATION

When you are finished answering all the questions, click on the Generate Results button.



This takes you to a page of results that will look like the sample below.



Note that low risk is not the same as *no* risk. All areas will be at risk, but the classification system provides a way to compare the relative level of risk between areas.

The information you provide for each question (risk indicator) on the information entry form is given a risk value of one to three, with three being the highest risk. For example, if you indicate that in your municipality less than 15% of households use public transportation to get to work, a risk value of 1 is assigned to that question. If you indicate that more than 25% percent of households in your municipality are reliant on public transportation to get to work, the risk value assigned is 3. (Handout 1 shows how each risk value is calculated for each risk indicator.)

The tool sums up all the risk values from the questionnaire. Based on the sum, the target area is assigned an overall level of risk, classified as low, medium, or high. Each risk level is color coded to provide a quick visual comparison between areas.

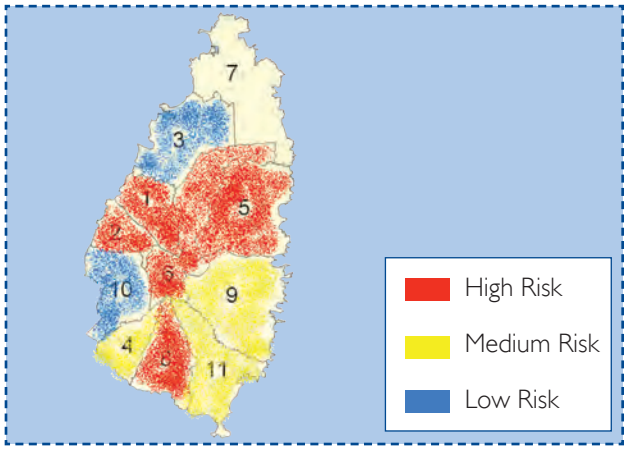
The range of possible sums is 12–36. Highest risk target areas are those that fall within the top 25 percent of possible scores (the score is greater than or equal to 27). Medium risk is assigned to areas with a score greater than or equal to (>=) 17 and less than 27. Low risk is assigned to areas with a total score >=12 and less than 17.

HOW CAN WE ORGANIZE THIS RISK CLASSIFICATION INFORMATION?

Making a Risk Map provides your team with a graphic representation of the risk at the municipality level which can help you decide where to prioritize preparedness and response efforts.

Using the results shown on the Risk Classification Worksheet and a blank map of the municipality, create a map similar to the sample on the following page by shading high risk areas red, medium risk areas yellow, and low risk areas blue.

RISK MAP



STEP 4: VIEW RISK FACTOR RESULTS

Examining the level of risk assigned to each risk factor will help you to understand how each of the indicators (the questions from the information entry page) contributes to the overall risk of food and livelihood insecurity during a pandemic.

Hold the cursor over this button and click to view risk factors.

Area | View Information Summary | View Risk Factors

27-36	High
17-26	Medium
12-17	Low

Sum of Risk Indicators	Level of risk
24	Medium
16	Low
28	High

SAMPLE RISK FACTOR PAGE

Key to risk value													
	See	3	25%	50%	High	No	50%	50%	50%	10%	20%	0%	0%	0%
	User's	2	15%	20%	Medium	No	30%	20%	30%	5%	10%	50%	50%	50%
	Guide	1	0%	0%	Low	Yes	0%	0%	0%	0%	0%	70%	70%	70%

Target Area	% HHs needing public transportation for work	% HHs main income from wage labor	Level of violence in the area	Main food market in same target area	% consumed food purchased	% HH income spent on food	Poverty rate	% stunting in children < 5	% population with caloric deficit	% HHs with access to health care	% HHs with access to sanitation	% HHs with access to potable water	Total Risk Value
Pima	2	2	2	1	3	3	2	1	3	3	3	3	**28**
Rowerchi	3	2	1	3	1	2	1	1	2	1	1	1	**19**
Massape	1	2	2	3	3	2	1	1	3	2	3	3	**26**

When a target area is assigned a risk value of 3 for a particular indicator, this suggests that this area is characterized by high risk for that indicator. If a target area is assigned a risk value of 1, this suggests that this area is characterized by relatively low risk for that indicator.

The risk factor results help you to understand the main contributors to an area's overall level of risk. This information helps you determine what types of preparedness and response activities might help lower the risk classification most quickly and what type of activities might not be appropriate for this area.

Using the sample Risk Factor Worksheet above, we see that in the target area of Pima six indicators are classified as high risk (Level 3): percentage of food purchased, percentage of household income that is spent on food purchases, percentage of people that do not meet their daily food energy needs (caloric deficit) and access to healthcare, sanitation services, and clean and drinkable water.

Because people are already food insecure in the community of Pima, emergency food distribution will probably be a necessary response during a pandemic. Looking further, we notice that a main food market exists in the area. If prices do not rise sharply and the market remains stocked, people may be able to obtain food during the early weeks of the pandemic. However, due to the fact that this target population purchases most of the food they eat (> 50%) and spends the majority of their income (> 50%) on food, if prices rise dramatically or markets run out of food, this community will suffer.

This information provides additional support for emergency food distribution as a response. It also alerts you that you must determine how much food is available in the area, so that you can plan for how much more you need to acquire. (For further guidance, turn to Tool 11, *Distributing Emergency Food During an Influenza Pandemic*.)

The sample data show that many households do not have access to healthcare, sanitation, or clean and drinkable water. This information alerts us that we must increase efforts to provide training in emergency response and home-based healthcare in this area. We will want to educate households about the need for increased hygiene, and will also want to ensure that households know how to purify water, and possibly provide them with water filters or household bleach if the municipal budget allows.

This tool cannot provide all the answers as to how your team can best protect the food security and livelihoods of the people in your municipality, but it can offer an initial understanding of why certain locations may need to be prioritized for preventative action and response efforts. Use the information that this tool provides as a guide to determining what type of in-depth information must be gathered using the other food security and livelihoods tools. By combining information gathered using the collection of tools, you will be better prepared to make the necessary decisions and take the critical actions that can reduce death and suffering in your municipality.

UNDERSTANDING FOOD SECURITY AND LIVELIHOOD RISK CLASSIFICATION

The calculation of the risk values is shown in the following table. It is also provided at the top of the Risk Factor worksheet in the Excel tool.

Question from Information Entry Form (risk indicator)	Indicator Values	Risk Values
What percentage of households must depend on public transportation to get to and from work?	< 15% >=15 %and < 25% >=25%	1 2 3
What is the percentage of households whose main source of income is wage labor?	< 20% >=20 % and < 50% >=50%	1 2 3
How would you rate the level of violence in the neighborhood? (This is relative to other neighborhoods or villages in the municipality.)	Low Medium High	1 2 3
Is the main food market for households in the same targeted area?	Yes No	1 3
What percentage of food that households eat is purchased?	< 30% >=30 % and < 50% >=50%	1 2 3
What percentage of household income must be spent on food?	< 20% >=20 % and < 50% >=50%	1 2 3
What is the overall poverty rate for this area?	< 30% >=30 % and < 50% >=50%	1 2 3
What is the percentage of stunting in children less than five years old?	< 5% >=5% and < 10% >=10%	1 2 3
What percentage of the population does not eat enough to meet their basic energy needs?	< 10% >=10 % and < 20% >=20%	1 2 3
What percentage of households has access to healthcare?	>=70% <70% and >= 50% <50%	1 2 3
What percentage of households has access to improved latrines?	>=70% <70% and >= 50% <50%	1 2 3
What percentage of households has access to water that is clean and safe to drink?	>=70% <70% and >= 50% <50%	1 2 3

IDENTIFICATION OF PEOPLE MOST AT RISK OF FOOD INSECURITY

PREPAREDNESS

RESPONSE

RECOVERY

This tool will help you to:

- Understand how people in your municipality normally provide food for themselves and for their households
- Determine who is most affected by poverty and hunger in your municipality
- Determine who in the municipality will suffer the most from a pandemic in terms of their ability to meet their households' food needs

Who will implement this tool:

- The mayor
- The ***municipal leadership team***, in collaboration with:
  - Nongovernmental organizations (NGOs)
  - Hospitals and health centers
  - Community authorities and leaders
  - Food wholesalers and retail markets
  - Public security agencies

A number of existing resources which offer detailed guidance on conducting food and livelihood security assessments are listed in the *Resources* section of this toolkit. This tool was designed to summarize the most basic elements of these assessments to help you understand the level of food and livelihood security for the people living in your municipality before the pandemic arrives, and the factors that could place some people at high risk of food and livelihood insecurity during a pandemic. This information will help you make the best decisions about how to respond to potential food and livelihood security threats.

Food security in a community exists when everyone can grow, buy, or trade for enough nutritious food to ensure a healthy and active life. The alternative condition—*food insecurity*—can apply to individuals, households, particular groups or communities, cities, or regions.

The term ***livelihoods*** refers to more than simply the way in which people earn money. It refers to the skills, abilities, and assets (both material and social resources) that people have, to their activities, and to the decisions they make, all of which help them to survive each day. ***Livelihood security*** refers to the ability to continuously maintain or enhance a healthy and secure life.

OVERVIEW

The resources available to people in your municipality will determine how well they are able to get back to normal following a shock like a pandemic. Resources might include money, land, good health, a clean environment, and education, as well as friends, neighbors, or communities that are able to help lessen the impact of such a shock.

People affected by a pandemic will have two priorities with respect to food and livelihood security:

- Maintaining the resources necessary for ***food security*** during a pandemic, and
- Recovering any lost resources to ensure future secure ***livelihoods***

During a pandemic, municipal leadership decisions to protect food and livelihood security must be based on an understanding of the following:

1. How people normally provide food for themselves and for their households
   Do they:
   - Grow it?
   - Buy it?
   - Trade for it?
   - Receive it as gifts or through assistance programs?
   - Need to travel to get it? If so, near or far?
2. How people make their living
3. The possible impact of the pandemic on current and future food and livelihood security—which groups are most at risk (most vulnerable)
4. The most appropriate response

Vulnerable groups (those groups most frequently at risk in emergencies such as a pandemic) typically include women, children, older people, disabled people, and people living with HIV/AIDS. In certain contexts, people may also become vulnerable because of ethnic origin, religious or political affiliation, or displacement.

An *in-depth food and livelihood security assessment* identifies the poorest populations and those which will be at greatest risk in a disaster. Typically, these assessments are conducted by governments, nongovernmental organizations, and international aid agencies.

Information on the most vulnerable groups or households in your community or region may be available from your central-level government agencies or from the nongovernmental organizations that work in your area. If you have time before the pandemic hits, contact these organizations and ask if they have access to livelihood or vulnerability studies. (Turn to Handout 1 at the end of this tool for links to the agencies that may have conducted such an assessment in your region.)

WHAT IS A FOOD AND LIVELIHOOD SECURITY ASSESSMENT?

A local food and livelihood security assessment provides information on the levels of hunger and overall well-being of people in the municipality to help the municipal leadership team determine who will need help first and who will need the most help overall during the pandemic.

In-depth food and livelihood security information is sometimes available through central government channels or humanitarian aid groups. You should attempt to access such information if it exists, because it can help identify areas within the municipality where people are most at risk, and provide a preliminary idea of the specific problems that various groups are struggling with.

Regardless of whether in-depth information is available, the municipal leadership team should do a local food and livelihood security assessment. This will help you to evaluate the vulnerability of your municipality as a whole and discover which groups are most vulnerable.

WHEN SHOULD WE CONDUCT A FOOD AND LIVELIHOOD ASSESSMENT?

Ideally you should conduct the assessment long before a pandemic virus arrives in the municipality. Collecting this information beforehand gives you a good idea of the extent of food and livelihood insecurity in your municipality and the factors that are contributing to it. By knowing the extent of food insecurity, you will be better prepared to manage response efforts for any disaster that threatens your region. Handouts 3 through 8 at the end of this tool provide outlines for various types of pre-pandemic interviews which are discussed later in the tool. All questions should be reviewed to make sure they apply to the conditions in the municipality.

WHERE SHOULD WE CONDUCT A FOOD AND LIVELIHOOD ASSESSMENT?

If the municipality consists of many distinct communities and your team is unable to visit all of them, you will need to prioritize where you will collect information first. Tool 8, *Classification of Food Security Risk Location*s, can help you classify municipal communities according to the level of risk of food and livelihood insecurity. This is a good first step to help you estimate the areas that may need help first. The tool will also help you to identify information gaps so that you can effectively design your assessment questionnaires to gather the missing information.

HOW DO WE CONDUCT A LOCAL FOOD AND LIVELIHOOD ASSESSMENT?

To conduct a local assessment, assemble a team to gather information using community interviews, key informant interviews, focus group discussions, community observation, and seasonal calendars. Using multiple methods and sources of information helps make sure that the results accurately reflect the situation in the municipality. Handout 2 provides key questions if you are conducting interviews *during* a pandemic. Handouts 3 through 8 provide key questions if you are conducting interviews *before* the pandemic virus has arrived in your municipality and you have enough time to collect detailed information.

WHAT IS THE DIFFERENCE BETWEEN THE VARIOUS METHODS OF GATHERING INFORMATION?

Community interviews are conducted with a large group of community members to get general background information on a particular community or group. Use an outline to help guide these interviews (see Handout 3 at the end of this tool for an example) but allow sufficient time for free and open expression by everyone participating. *If social distancing measures have been implemented, community interviews are not appropriate.*

Key informant interviews are typically conducted with people who have specific knowledge about certain characteristics of the community. You will interview these people one at a time. Examples of key informants include:

- Community leaders—government, religious, military
- Shopkeepers and traders
- Healthcare providers
- School teachers
- Agriculture specialists

Key informants may also be individuals noted for their unique perspective and/or high degree of vulnerability, such as widows, elders, orphans, or people with disabilities. The purpose of key informant interviews is to obtain more detail about the strengths and challenges of the community and to cross-check information gained in other interviews and discussions. (For examples of questions that you might ask in a key informant interview, see Handouts 4 and 5.)

Focus group discussions are conducted with groups of 6 to 12 individuals. With groups larger than this, it is unlikely that all participants will contribute to the discussion. During a pandemic, to reduce spread of the disease, focus groups should be limited to four or five people, and all who participate must practice good hygiene and precautionary measures to stay safe and healthy. (See Tool 4, *Non-Pharmaceutical Interventions(NPIs): Actions to Limit the Spread*.)The purpose of the focus group discussion is to get a quick understanding of a key issue. For example, a group of farmers may be gathered to discuss the availability of crops in the area, how much food this could provide for the community during a pandemic, and if harvesting is reliant on migrant workers who may not be available during a pandemic. A group of caregivers may be gathered to discuss the forms of social support that people rely on in the community, how households obtain food, or the nutrition of children in the community.

The people in the focus groups should be representative of the main ***livelihood groups*** (i.e., according to sources of, and strategies for obtaining, income and/or food) and ***wealth ranking categories*** (categories distinguishing those considered by community members to be relatively poor and those who are relatively well off) in the community. Holding separate discussions with men and women allows your team to gain a gender perspective on the topic. The discussions are guided by an outline of questions (see Handouts 6 and 7) but should remain flexible.

IMMEDIATE ACTION
Assessing Food and Livelihood Security Quickly When the Pandemic Virus Is Close By

If there is not time to conduct a detailed local assessment because the pandemic is close by, the questionnaire in Handout 2 covers essential information to consider in a food and livelihood security assessment that is taking place in response to a pandemic. These questions should be reviewed to make sure they apply to conditions in your municipality. Other questions may need to be added. Time will be limited, so carefully consider if each question asked will help you make decisions about *whose* food security needs to be protected and *how* you might help them.

Household interviews require a lot of manpower, but may be the best option during a pandemic because they do not require that people gather together. An assessment team member will individually visit households to obtain information on household food security. For example, they will find out how the household puts food on the table, what they do when they don't have enough food, how many wage earners live in the household, how many dependents, etc. (For sample questions, turn to Handout 8.)

Seasonal calendars can help you identify seasonal changes in food availability, food diversity, job availability, and prevalence of disease, all of which will be important factors to consider when protecting the food security of your population. If you are gathering information before the pandemic have people in the community draw the calendars. It can be useful to create calendars with groups of men and women separately as they may have differing views of which times of year are the most difficult. It may also be useful to develop calendars with several different groups who represent various socio-economic groups and livelihood types. A sample calendar is provided on page 10.

Once the disease begins to spread through your municipality do not gather people together to draw the calendar. You can, however, use the template of a seasonal calendar to help you organize information about seasonal differences that you collect during interviews.

Community observation (transect walk) consists of walking through the community with someone who lives there and knows the area well in order to locate important food and livelihood security resources, pockets of poverty and discrimination, environmental assets and hazards, as well as geographic opportunities and constraints. It is a suitable method to use before the pandemic, but must be used very carefully once the disease begins to spread through the municipality. The types of items observed during a community observation include, but are not limited to:

- The range, quantities, and prices of food available in markets
- Wild foods or foods grown on common property
- Water collection and storage
- Community food storage spaces
- The general state of cleanliness/sanitation
- Any obvious signs of malnutrition or widespread poor health
- The general state of roads
- Forms of transport that could be used for moving food supplies if fuel is not available during a pandemic wave (i.e. horse, bicycles, hand carts, etc.)

WHO CAN HELP CONDUCT THE ASSESSMENT?

Many members of the municipality—such as traders, healthcare workers, school teachers, community workers, and agriculture technicians—can participate on the assessment team. Assessment team members should be comfortable interviewing people and should have good interpersonal skills. If various languages are spoken in the municipality, at least one member of the team should be able to speak and understand the language of the people they will interview.

WHAT TYPES OF INFORMATION SHOULD WE COLLECT?

To understand the food and livelihood security situation in a community, you will need to ask specific questions that help you determine how people are making a living and meeting their food needs, which populations are currently most affected by poverty and hunger, and who may suffer the most in terms of their ability to provide food for their household during a pandemic.

You will want to make sure that the information you collect is necessary for making decisions about possible support to protect food and livelihood security. As you design your questionnaires, carefully consider why each piece of information is important. Sample questions and the rationale for asking them are provided on the following page.

Examples of Food Security Assessment Questions		
✓	Necessary Information	Why It Is Important to Know This
	What shocks (including environmental, economic, social or political) have recently affected the municipality or populations within the municipality?	Populations that are currently recovering from a past disaster will be extremely vulnerable. Their assets will already be depleted and residents may be in poor health. Such populations will have a difficult time coping with the effects of a pandemic and may be the first people who will need assistance.
	What are the different ways in which people in the municipality make a living?	The pandemic will affect each group differently, and the effect on each group will have implications for the rest of the population. *One example: If many farmers within a municipality become sick or die, the planting and/or harvesting of crops may be disrupted. This will create a hardship, not only for the households of the farmers (resulting from lost income and food), but for others in the community by lessening the availability of farm products in the market and by reducing the income of those who rely on selling these products.* *What other examples can you think of?*
	What are the different ways in which people meet their food needs?	A pandemic will affect each group differently. *One example: If market systems are disrupted, people who grow their own food will be less vulnerable to food insecurity than those who purchase most of the food they eat.* *What other examples can you think of?*
	How easy is it for people to get food at a market? Is the market far? Is the distance that must be traveled safe for all groups? Is credit available to all groups?	Distance, security, access to credit, and other factors will affect who is able to easily obtain food that must be purchased.
	What is the availability and price of food and essential goods?	Because towns and cities often rely on modern delivery systems, local markets may have small inventories. During a pandemic, they may not have enough goods for all residents. This may also cause prices to rise, putting available food out of reach for the poor (no food access).
	Which major agricultural crops are produced locally? How are they transported to markets? Which crops might spoil quickly if they are not transported properly?	Information about the area's important crops can help leaders determine what food will be available for local populations. It also helps determine the availability of surplus grain and other farm products that may need to be moved from rural to urban areas as quickly as possible to ensure food security for urban areas.

Examples of Food Security Assessment Questions		
✓	Necessary Information	Why It Is Important to Know This
	How do different sources of food and income vary among seasons in a normal year? Which months are the leanest times in terms of food and income?	If a severe pandemic hits during the hungry season (prior to harvest), rural agricultural households will be extremely vulnerable if they are unable to harvest crops due to illness. Following the pandemic, households that depend on rural food supplies will be vulnerable to food insecurity if the pandemic prevented agricultural households from planting. In addition, if some households depend on seasonal migration for work, and the ability to migrate is limited because of measures intended to reduce the spread of the virus, those households may need extra help during a pandemic.
	What are the migration trends?	An influenza pandemic may occur in up to three waves. Knowing where people migrate to and the seasons in which they migrate will be important to preventing the spread of the disease. Those who rely on migration for income will need assistance to make up for lost income.
	Do households maintain rural-urban ties?	Movements between urban and rural areas can be hazardous during a pandemic. Understanding the rural-urban links in a municipality can help you determine whether additional public education and outreach emphasizing these hazards should be targeted to a specific area.
	Which community-based groups are currently operating in the municipality? What are their activities? Who benefits?	Making full use of existing organizations will speed the process of outreach. Community groups can help identify the people who will need help first. They may be helpful in establishing a process that can be monitored in a fair and transparent manner.
	What types of assets, savings, or other reserves are owned by the different groups? Do savings groups exist in the municipality? Does everyone have access?	Those with minimal assets, wealth, or savings will be particularly vulnerable if labor declines and food prices increase. Further, those with few assets may choose to flee, accelerating the spread of the virus.
	How important are remittances (e.g., money sent from abroad) to household income?	People may not be able to access banking systems and automatic teller machines (ATMs) due to disrupted transportation systems. Even if people can get to banks and ATMs, it is possible that bank systems will not be functioning, and they will not be able to access their money.
	Are disease and illness more frequent in certain seasons?	Communities that regularly face bouts of illness in particular seasons will be more vulnerable if the virus arrives at the same time.
	Which households depend on social support when they run out of food or income?	In times of crisis, these networks are stretched and often break down. Crises in and near urban areas can often pit neighbor against neighbor, or community against community. The food assistance often provided by family and neighbors in the event of a shock may not be available if market and transportation systems shut down, and all households are struggling with food access.

HOW DO WE MAKE SENSE OF ALL THE INFORMATION WE COLLECT?

After conducting the interviews, discussions, and observations, organize the collected information into patterns and categories. Organizing the information helps you see how all the pieces of the puzzle fit together. Sample charts and tables are provided on the pages that follow.

The main purpose of this assessment is to determine which groups will be most vulnerable to food and livelihood insecurity during and after a severe pandemic, so that you can choose the best type of response. Your team should compare and cross-check all the information that was obtained from the various sources. Based on the collected information your team should be able to:

- Sort the population into groups, and describe how each group accesses food and income. What skills and assets does each group have that helps them survive each day? The groups may be defined by occupation, relative well-being (i.e. poor, better-off), gender, or ethnicity. The more sorting you do, the clearer your picture will be for decisionmaking.
- Determine who might need assistance. This includes groups that appear to be the most food insecure right now, and the groups that are at risk of becoming food insecure during a pandemic.
- Determine why each group may need assistance. Could they protect themselves if they were provided with information and/or resources before the pandemic virus arrives?
- Two sample charts follow. In the first chart, the information collected during interviews, discussions, and observations is organized into three main occupational groups. Review this information. Are you able to predict potential food and livelihood security problems that might surface for each group during a pandemic? Who will be at risk and why? What are the strengths of each group? What are challenges?

SAMPLE CHART: ORGANIZING COLLECTED INFORMATION BY GROUP

(Handout 9 contains a blank chart)

Collected Information	Livelihood Groups		
	Farming	Wage Labor/ Service Industry	Fishing
Recent Shocks	Last season's crops did not fully mature due to drought	Global rise in food prices resulted in a much larger amount of monthly income spent on food	Lost numerous boats and equipment during hurricane Tourism surge has reduced available fishing waters
Assets	Food storage space Land to grow food Livestock Water storage Credit with farmer's coop	Small cash savings Access to municipal water	Fish nets Boats Water storage tank Poultry Strong social network
How does this group make or receive money?	Most income comes from cash crops Also sells livestock, poultry and eggs	Tourism Entertainment Restaurants	Sells fish at local markets Handicrafts in off season
How does this group get food? How much food must they purchase?	Eats raised poultry, livestock Depends on markets for 60 % of food purchases because most of land is devoted to cash crop	Purchases almost all food from markets and street vendors	Catches fish Raises poultry Harvests from common property fruit trees Depends on market for 30 % of food purchases
Seasonal variations to money, food, or illness?	Harvest income is not enough to get from one season to the next; Income is lowest during growing season	Income is highest during tourist season; very low 4 months a year (off season)	High tourist season(water sports) reduces fishing yields and income
What does this group do to cope with scarcity or shock?	Uses credit to get by until harvest	Depends on remittances and social safety nets	Migrates

EXAMPLE OF A SEASONAL CALENDAR

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Rainfall					*	**	**	*	*			
Drought		*	*	**								
Hurricanes						**	*	*				
Agricultural harvest	*	*					*	*	**	**	***	
Fish catch				*	*	*	**	*				
Tourism	*	*	*	*					*	***	***	**
Food availability most difficult				*	**	***						
Highest level of migration				*	**	*				*	*	
High levels of disease						*	**	**				

Using this sample seasonal calendar we can see that if a pandemic were to strike this sample community in June they would be much more vulnerable to its impact than they would be if it struck in November. For example, those who rely on agriculture would be at the end of the lean season and many would be struggling with food availability. If many people became sick during the 2 to 3 month pandemic wave, the harvest that normally takes place in July and August could be delayed, causing further food insecurity for this region as well as others that depend on purchasing the agricultural production. Furthermore, those that rely on service or tourism may be struggling with low income since the tourist season has not yet begun. With the onset of a pandemic, the income they usually rely on from September to April may be greatly reduced due to restricted travel and global economic impact.

The calendar indicates that June is when the community is most likely to experience hurricanes. Following a hurricane, many households could have depleted assets. Additionally, we see that a number of the workers would be returning home from migration and might be carrying the pandemic virus with them. The community probably depends on these migratory workers to return and help with harvest. If they are prevented from returning by disrupted transportation systems or border closures, food may spoil in the fields and overall food availability will suffer.

What other risks and potential problems can you identify by using this sample seasonal calendar?

ONCE WE'VE DETERMINED THOSE MOST AT RISK OF FOOD INSECURITY, WHAT DO WE DO?

CHOOSING THE MOST APPROPRIATE TYPE OF ASSISTANCE

Many of the other tools in this kit will provide suggestions for a wide range of actions to support and protect food security in emergencies. Most of these responses depend on early planning, which is why *preparedness* is so important. Be sure to examine how your municipality's plan to protect food security fits in with existing national plans.

MUNICIPALITY ASSESSMENT UPDATE—BETWEEN PANDEMIC WAVES AND AFTER THE PANDEMIC

After the first wave of a pandemic passes, updated information should be gathered as soon as possible. You will want to know how the pandemic has affected people's food security and livelihoods, who has suffered the most, and who has been more resilient to the pandemic's impact. By finding out how those who have managed fairly well through a pandemic wave have been able to do so, you can better understand and share successful coping strategies with others that have not fared so well. Learning from the experiences of the first wave will better prepare your municipality for a second or third wave.

The table on the next page serves as an example of the type of questions you will want to ask when updating food and livelihood security information. Use the charts in Tool 8, *Classification of Food Security Risk Locations* to review the food security problems that could occur. This will help you to design an updated questionnaire that accurately addresses potential problems specific to your municipality. Because time and human resources will likely be limited following a severe pandemic, you will want to make the updated assessment as efficient as possible. Be sure that every question you ask is necessary for decisionmaking. Try to determine if other groups (governments, international organizations, NGOs, community groups) are collecting similar information and if so coordinate your efforts and share the results with each other.

If social distancing measures are still in place, all who participate in interviews must practice good hygiene precautionary measures to stay safe and healthy.

SAMPLE QUESTIONNAIRE: UPDATING FOOD AND LIVELIHOOD SECURITY INFORMATION

You will want to determine the following for each livelihood group that you identified in the initial assessment.	✓
Has the pandemic affected overall food availability? How? Are nutrient-rich foods available?	
Are crops spoiling in the field because people are too ill to harvest? Are they spoiling due to slow transport or poor storage practices? Were crops planted at their normal times and in normal quantities? If not, how will this affect future food security (harvests that people usually depend on)?	
Has the pandemic affected food access? How? Have food prices increased significantly because of food shortages? Which food items? Have people lost their source of income, or is it greatly reduced? Why? Is there evidence of hoarding or speculation on the part of markets? Are people unable to get to markets because of illness, lack of transportation, or other issues? Are certain groups being turned away at markets because of their ethnicity, stigma, or religious or political affiliation?	
What decisions are people making to deal with the effects of the pandemic (coping strategies)? Examples: Urban workers are migrating to rural areas; households are eating smaller portions of food. Are any risks associated with these coping strategies? Example: Migration may increase transmission of the virus.	
How have these decisions/coping strategies affected people's health? The amount of food their household eats? Their income? Their safety? Their social support? Their education?	
Overall, which group or population is most affected?	

RESOURCES FOR EXISTING FOOD AND LIVELIHOOD SECURITY ASSESSMENTS

- National Governments
- Joint U.N. Assessments
- Eldis Food Security Resource Guide (www.eldis.org/food/index.htm)
- COPLA Comercio y Pobreza en Latinoamerica (http://www.cop-la.net/)
- Famine Early Warning System Network (www.fews.net)
- FIVIMS—Food Insecurity and Vulnerability Information (www.fivims.org)
- Food and Nutrition Technical Assistance (www.fantaproject.org)
- Food and Agriculture Organization of the United Nations (www.fao.org) (http://www.rlc.fao.org)
- United Nations Development Programme Human Development Reports (http://hdr.undp.org/es/)
- World Bank Global and National Development Reports (http://www.bancomundial.org/)
- United Nations World Food Programme (http://one.wfp.org/spanish/)
- World Health Organization (www.who.int/en)
- International Federation of Red Cross and Red Crescent Societies (http://www.ifrc.org/sp/)
- CARE (www.care.org)
- Catholic Relief Services (www.crs.org)
- World Vision (www.worldvision.org)
- Comité Internacional de la Cruz Roja (CICR) (http://www.icrc.org/spa)
- Save the Children (http://www.scslat.org/web/index.php)

SAMPLE RAPID FOOD AND LIVELIHOOD SECURITY ASSESSMENT

To use in the early-pandemic phase and during pandemic when there is not time to conduct a detailed local assessment.

(Handouts 2–8 provide outlines for detailed assessments)

Review these questions to make sure they apply to conditions in the municipality. Other questions may need to be added. Time will be limited, so carefully consider if each question asked will help you make decisions about ***whose*** *food security needs to be protected and* ***how*** *you might help them.*

ACCESS TO BASIC SERVICES

- Are there groups or geographic areas in the community that do not have access to piped water? Where do these groups get drinking water? How is water stored?
- Are there groups or geographic areas that do not have access to natural gas or other fuel for cooking and heat (particularly if the pandemic arrives during the cold season)?
- What is the status of community sanitary conditions? Who is responsible for maintenance?
- What forms of transport that do not rely on fuel are available in the community?

FOOD SECURITY

- Which major agricultural crops are produced locally? Livestock?
- How are the crops/livestock transported to markets?
- Which crops might spoil quickly if they are not transported properly?
- What food is processed or packaged locally?
- How easy is it for people to get food at the market? Is the market close by? Is the distance that must be traveled safe for all groups?
- What is the availability and price of food and essential goods? How much food is presently in markets?
- Is credit at the market available to all groups?
- Is this a lean season in terms of food or income? Is the lean season approaching soon?
- What wild foods are available right now?

LIVELIHOODS INFORMATION

- What shocks (economic, health, social, political, or natural disasters) have recently affected the municipality or groups within the municipality?
- What are the main ways in which people in the municipality make a living?
- What types of assets, savings, or other reserves are owned by the different livelihood groups?
- How important are remittances (e.g., money sent from abroad) to household income?
- What are the migration trends? Are people getting ready to migrate? Expected to return soon?
- Do households maintain rural-urban ties?
- Are households suffering from seasonal disease or illness?

SOCIAL INFORMATION

- Which community-based groups are currently operating in the municipality?
- Which households depend on social support when they run out of food or income?
- Does this community support each other in times of need? How?
- What volunteer systems exist?

SAMPLE OUTLINE FOR A COMMUNITY INTERVIEW

(To be used pre-pandemic)

This outline of questions can be used if there is time to do a detailed assessment before a pandemic has arrived. Community Interviews are not appropriate if a pandemic has arrived in the municipality. These questions should be reviewed to make sure they apply to conditions in the municipality.

If the pandemic virus has not yet arrived in the municipality, but is in neighboring regions and you have no time to conduct detailed assessments, use the quick assessment guide (Handout 2)

Next to some questions you will see the letters SC, CO and KI. This indicates that the information could also be gathered using a seasonal calendar (SC), community observation (CO), or a key informant interview (KI). Handouts 4 and 5 offer samples of Key Informant interviews, but any questions that require specific knowledge are good questions to ask a KI. Equal access to resources and discrimination are examples of topics that may not be fully discussed during a large community interview due to fears about speaking up. KI interviews are a good way to follow up. Collecting information using various methods allows you to cross-check and verify your data, which supports better decisionmaking.

Municipality:_____Village/Neighborhood:_____ Date:_____

This interview is conducted to obtain general background information on a particular community. It involves a relatively large group of community members—25 to 30 is the ideal number—but you should not exclude anyone who decides to come. The interview can be conducted in two groups—one of men and one of women—to capture differing views.

HISTORICAL INFORMATION

- What shocks (including environmental, economic, social, health, and political) have affected the community during the last two to three years?

ACCESS TO BASIC SERVICES AND LAND

- Does the community have access to electricity? If so, are there groups or geographic areas that do not have access?
- Does the community have access to piped water? If so, are there groups or geographic areas that do not have access? Where do they get drinking water?
  - How is water stored? **CO**
- Does the community have access to natural gas or fuel for cooking and heat? If so, are there groups or geographic areas that do not have access?
- What is the condition of other existing infrastructure? (Note the condition of roads, transportation, irrigation, telephone service, post office, sanitation) **CO**
- What forms of transport that do not rely on fuel are present in the community? **CO**
- Which groups in the community have access to land? Which do not? **KI**

FOOD AVAILABILITY AND ACCESS

- What are the major agricultural crops produced locally (cash crops and food crops)? When are they harvested? **CO SC**
  - How much of harvest is exported? **KI**
  - Is harvest dependent on migrant labor?
- What livestock is produced locally? When is it typically slaughtered or taken to market?
- Are local markets available? How far are they located from the center of the community? **CO**
  - If not, where do people sell and buy products?
- What are the range, quantities, and prices of food available in markets? **CO KI**
- Which months are the leanest times in terms of food? **SC**
- What substitute foods can be used when food is in short supply? **KI**
- What wild foods grow on common property? When are they available? **CO SC**
- Do community food storage spaces exist? Who has access to these? **CO**

LIVELIHOODS INFORMATION

- What are the major ways people currently earn money and/or survive (livelihoods) in the area? What were the major livelihoods five years ago?
- Do the ways people obtain income/trade change across the seasons? Describe. **SC**
  - Which months are the leanest times in terms of income? **SC**
- Are there differences in the types of work men and women can do? Differences in their ability to get work? **KI**
- What types of financial institutions exist to support the economic activities of people? **CO**
- Do people in this community migrate for work? **SC**
  - If so, what do they do and where do they go? Which household members migrate? How long are they gone? **KI**
- Do households maintain rural-urban ties?
  - If yes, to where? Which households? **KI**
- How important are remittances to household income? **KI**
- What are the major risks to livelihoods in the community, and how do people manage these risks? **KI**

EDUCATION

- What types of schools does the community have access to (including public and private, primary, secondary, and vocational)? **CO**
  - What is the distance from the community center for each type of school?
- Does any informal education take place?
- What sorts of skills are found in the community?
  - Where do people go to learn these skills?
- Describe local levels of literacy and dropout rates, noting gender differences. **KI**

HEALTH

- *Do people in this community know about the risk of an influenza pandemic?*
- Describe the types of diseases experienced by the community over the past year. **KI**
- Describe diseases and illnesses that usually occur and the seasons when they occur. **SC**
- What types of health facilities are available locally (e.g., government hospital, government clinic or health post, private clinic or health post, private pharmacy)?
  - Who has access to these services? What are the costs of seeking care (time included)? **KI**
- What could be done to improve the health situation in your community?

SANITATION

- Describe the status of community sanitary conditions **CO**
- Have community sanitary conditions become better or worse in the past five years? Why? **KI**

SOCIAL SUPPORT AND NETWORKING

- What are the different types of organizations and community-based groups that work in the community? **KI**
- Do people get social support when they run out of food or income? **KI**
  - If so, from whom and in what form?
- Do some groups have more social support than others? **KI**
- Are any groups discriminated against due to ethnicity, stigma, or religious or political affiliation? Other? **KI**

KEY INFORMANT INTERVIEW

Key informant interviews are typically conducted with people who have specific knowledge about certain characteristics of the community. You will interview these people one at a time. The purpose of key informant interviews is to obtain more detail about the strengths and challenges of the community and to cross-check information gained in other interviews and discussions.

SAMPLE QUESTIONS FOR A HEALTHCARE PROVIDER

Municipality:_____Village/Neighborhood:_____ Date:_____

TOPICS AND QUESTIONS FOR DISCUSSION

- Most common diseases and health-related problems (causes, seasonality, and frequency)
- Available health services (fill in the following table)

	Distance (km) from center of village/area	Time (hrs) from center of village/area	Type of transportation available and cost
Hospital			
Healthcare Center			
Traditional Healer			
Community Health Worker			
Pharmacy			
NGOs			
Others (specify) _____			

- Availability and qualification of health personnel
- Constraints faced in recruiting and training health personnel
- Operational capacity of health service delivery systems
- Capacity to provide psychosocial support to respond to increased public anxiety
- Method of sharing information about health, hygiene, and nutrition to households and communities
- What proportion of people in the community use health services?
- Which groups use health services? Which ones do not?
- Where and how do people get medications?
- Which diseases cause the greatest number of deaths in this community?
- What would improve quality and access to health services?

KEY INFORMANT INTERVIEW

Key informant interviews are typically conducted with people who have specific knowledge about certain characteristics of the community. You will interview these people one at a time. The purpose of key informant interviews is to obtain more detail about the strengths and challenges of the community and to cross check information gained in other interviews and discussions.

SAMPLE QUESTIONS FOR A STOREKEEPER

Municipality:_____Village/Neighborhood:_____ Date:_____

TOPICS AND QUESTIONS FOR DISCUSSION

- What role does the private sector play in the marketing and distribution of food?
- What is the storage capacity of food in this area (e.g., the average size of trader stores, percentage of traders in the market with storage capacity)?
- What proportion of households does not have enough money or trading ability to meet basic food needs?
- What proportion of households has secure access to markets?
- What are the terms of credit for households or individuals?
- What is the credit being used for (loans to purchase food or investment)?
- What is the price in the main markets of the items in the following table?

FOOD PRICES

This list is an example. Fill in the blanks with the local foods that are necessary to meet nutritional needs. (For more information on foods that meet nutritional needs, see Tool 11, *Distribution of Emergency Food during an Influenza Pandemic,* and Tool 10, *Household Food Security Preparedness.*)

Food Items	Retail unit	Price per retail unit (local currency)	Price per unit six months ago	Price per unit one year ago
Maize	90 kg sack	600	500	450
Beans	90 kg sack	400	300	300
Cooking Oil	1 liter	30	25	23
Cassava	2 kg	50	45	40
Sugar	2 kg	15	12	10

Others	Current price	Price at this time last year
Firewood (small)		
Firewood (large)		
Charcoal (small)		
Charcoal (large)		

FOCUS GROUP DISCUSSION—RURAL AREAS

(To be used pre-pandemic)

Focus group discussions are conducted with groups of six to eight individuals. With groups larger than this, it is unlikely that all will contribute to the discussion. During a pandemic, to reduce the spread of the disease, focus groups should be limited to four or five people, and all who participate must practice good hygiene precautionary measures to stay safe and healthy. If you are conducting focus group discussions during a pandemic, use the quick assessment guide in Handout 2.

The purpose of the focus group discussion is to get a quick understanding of a key issue. Depending on your information needs before the pandemic, you may ask some or all of these questions.

SAMPLE QUESTIONS—RURAL AREAS

Municipality:_____Village/Neighborhood:_____ Date:_____

Historical Information on Shocks

- What shocks—environmental (including climate change), economic, social, and political—have affected the community during the last five years? (Include both shocks that have affected individual households and shocks that have affected entire communities and regions.)
- How have people coped with these shocks (in the short term and in the long term)? Did the decisions people made to cope with the shocks have a negative or positive impact on their household? The community?
- Has the community, as a whole, helped households to manage these shocks? How?
- Have external organizations (e.g., a nongovernmental organization, the government, or private groups) helped the community manage these shocks? How?

Food Security

- How many months can households meet their consumption needs from their own food production or from their own cash?
- How do people plan for eventual food shortages? How and where is food stored? Who is responsible for food storage in the home?
- Which months are the leanest times in terms of food and income?
- How do people cope when their income or agricultural and livestock production is not enough? Do men and women apply the same coping strategies or different ones? If they are different, how so?
- Do people rely on other households to help them cope with income and food shortages? What type of support?
- How do households obtain food in times of scarcity? What are the major food sources?
- What substitute foods are available when food is in short supply?
- When food is in short supply, are some household members fed before others? Who and why?
- What are the priorities for your community to improve food security? Does the community get together to talk about these priorities? Who participates in these meetings? Who leads these discussions?

Economic Information

- Describe differences in wages and labor by gender and age.
- From whom can people borrow money? (List sources of credit, savings, loans, insurance, welfare funds, scholarship programs, or revolving funds for the poor.) Who can access these sources (e.g., men, women, particular social groups)? Describe the terms of borrowing and repayment.

Social Information

- In most communities, some people are more vulnerable to food shortages than others. What are the characteristics of the most vulnerable groups and individuals in this community? Ask for details.
- Are these vulnerable groups being assisted? How? Do some groups have more social support than others?
- Do poorer people belong to different ethnic groups? Do they live in different parts of the community?
- Does this community support each other in times of need? How?
- What volunteer systems exist?
- For important messages, which media source do you find most reliable (e.g., newspapers, TV, radio, NGOs, government)?

Access to Resources

Natural Resource Information

- Describe any constraints to accessing drinking water.
- Describe the land type, soil fertility, and hazards (e.g., flooding and drought).
- How many people are landless?
- Is common property or government land available to the community? What is the nature of this land and how is it used? How do people get access to it? Are there any conflicts over use of this land?

Participation in Nongovernmental Organization or Government Programs

- Do households participate in government assistance programs? If so, please describe these (e.g., cash-based, food-based, combined, or other complementary programs).
- Do households participate in any programs run by nongovernmental organizations? Can you describe these activities?

Health

- Are disease and illness more frequent in certain seasons? Describe. Does this affect the ability to work?
- What do most people die from?
- What types of health facilities are available locally? Who can use these services?
- Are community health workers available? What services do they offer?
- What could be done to improve the health situation in your community?
- How long does it take to walk to the health center?
- Are community meetings held on healthcare, hygiene, and sanitation? If so, please explain.
- Do most households have soap and water? Is handwashing customary?

Community Strengths and Challenges

- What are the greatest strengths of this community as a whole?
- What are the major challenges to the well-being of people in this community? How will these challenges be managed?

FOCUS GROUP DISCUSSION—URBAN AND PERI-URBAN AREAS

(To be used pre-pandemic)

Focus group discussions are conducted with groups of six to eight individuals. With groups larger than this, it is unlikely that all will contribute to the discussion. During a pandemic, to limit the spread of the disease focus groups should be limited to four or five people, and all who participate must practice good hygiene precautionary measures to stay safe and healthy. If you are conducting focus group discussions during a pandemic, use the quick assessment guide in Handout 2.

The purpose of the focus group discussion is to get a quick understanding of a key issue. Depending on your information needs before the pandemic, you may ask some or all of these questions.

SAMPLE QUESTIONS—URBAN AND PERI-URBAN AREAS

Municipality:_____Village/Neighborhood:_____ Date:_____

Historical Information on Shocks

- What shocks—environmental, economic, social, and political—have affected this area during the last five years? (Include both shocks that have affected individual households and shocks that have affected entire communities and regions.)
- How have people coped with these shocks (in the short term and in the long term)? Did the decisions people made to cope with the shocks have a negative or positive impact on their household? The community?
- Has the community, as a whole, helped households to manage these shocks? How?
- Have external organizations (e.g., a nongovernmental organization, the government, or private groups) helped the community manage these shocks? How?

Infrastructure

- What is the condition of existing infrastructure (e.g., roads, schools, housing, water and sanitation, electricity, natural gas, transportation, and public safety)?
- Who is responsible for maintaining local infrastructure?
- Does everyone have access to piped water? If not, where do these people get water?
  - Is the water source clean? If not, do people purify their drinking water? How?

Food Security

- How many months of the year can households meet their consumption needs from the money they earn or foods grown in gardens?
- Which months are the leanest times in terms of food and income?
- Do people plan for eventual food shortages? How and where is food stored?
  Who is responsible for food storage in the home?
- Do people rely on other households to help them cope with income and food shortages? What type of support?
- What are the main foods that are preferred by households?
  What substitute foods are available when food is in short supply?
- Do people have problems accessing markets (e.g., in terms of time, distance, transportation available, or shopkeeper discrimination)? Describe.
- Do people have problems purchasing food or basic necessities? (Are items available in stores? Affordable?) Describe.
- When food is in short supply, are some household members fed before others? Who and why?
- Is common property or government land available to use for urban gardening or other purposes?
  How do people get access to it? Do any conflicts occur over the use of this land?

- Do households in this area grow urban gardens?
  - Describe constraints to production, access to support services, and the quality of service.
  - What percentage of households will have some harvest from urban gardens?
- What are the priorities for your community to improve food security? Do people get together to talk about these priorities? Who participates in these meetings? Who leads these discussions?

Economic Information

- What do most people do for income and work in this area of the city?
- What opportunities exist for earning additional income?
- Estimate the proportion of people that rely on public transportation to get to work.
- Are there differences in the types of jobs people can obtain due to gender, ethnicity, religion, or political affiliation? Differences in wages?
- Do people leave the city to find work? Has this changed recently?
  - What type of work do people migrate for? Where do they go?
  - Which household members migrate? Why? How long are they gone?
  - Do migrants remit? How important are remittances to household income?
- What are the major expenses for households? Rent? Food? Transportation?
- Have people had to use their savings to meet these expenses? If so, where did these savings come from?
- From whom can people borrow money? (List sources of credit, savings, loans, insurance, welfare funds, scholarship programs, or revolving funds for the poor.) Who can access these sources (e.g., men, women, particular social groups)? Describe the terms of borrowing and repayment.
- How is credit used? To meet everyday needs? Investment?

Social Information

- In most communities, some people are more vulnerable to food shortages than others. What are the characteristics of the most vulnerable people in this community? (Describe these characteristics in detail.)
- Are there different ethnic, religious, or political groups in this neighborhood? Are some groups more vulnerable? How? Why? Do they live in different parts of the neighborhood?
- What are the different types of organizations (e.g., nongovernmental organizations, religious groups, government groups) that work in this community? What are their activities? Who benefits? Describe any positive or negative change that has resulted from these activities.
- What community-based groups are currently operating in this area? What are their activities? Who benefits? Describe any positive or negative change that has resulted from these activities.
- Do social or cultural conflicts occur in this community? What is the cause of conflict?
- Do households rely on other households when they run out of food or income?
- Do some groups have more social support than others? If so, who? Why?
- What volunteer systems exist?
- How does local decisionmaking occur? Do certain groups or bodies influence local-level decisionmaking? How?
- For important messages, which media source do you find most reliable (e.g., newspapers, TV, radio, NGOs, government)?

Education and Health Services

- What sources of education exist in your community (public and private)? Who has access to education? What are the literacy and dropout trends (including gender differences)?
- What types of health facilities are available locally? Who has access to health services?
- What are the costs to seeking care (including time)?
- What do most people die from?
- Are community meetings held on healthcare, hygiene, and sanitation? If so, please explain.
- Do most people have soap and water? Is handwashing customary?

Community Strengths and Challenges

- What are the greatest strengths of this community as a whole?
- What are the major challenges to the well-being of people in this community? How will these challenges be managed?

HOUSEHOLD INTERVIEW

Household Interviews require a lot of manpower, but may be the best option during a pandemic. An assessment team member will individually visit households to obtain information on household food security. All who participate in household interviews must practice good hygiene and precautionary measures to stay safe and healthy. (See Tool 4, Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality.)

URBAN AND RURAL HOUSEHOLDS

- How many people live in this household? Get gender and ages.
- How many people work in this household? Get gender and ages.

FOOD SECURITY

- How many months of the year can you provide enough food to eat for the entire household, using your own sources (income, food production, remittances, barter, other sources)?
  - What proportion of household income is spent on food?
- What is the main source of food (markets, garden, relatives/neighbors, food aid)?
  - What proportion of the food your household eats each month is purchased?
  - How close is the nearest market?
  - What foods are you growing?
  - What is the source of food aid, if received?
- What do you do when you cannot meet your household's food needs? Probe for coping strategies.
- What is the main source of drinking water? How do you store it?
- Do you need to treat this water for it to be drinkable?
- What is the main source of water for other household needs?
- What is the main source of cooking fuel?
- How many months/weeks of cooking fuel do you currently have on hand?
- Are there other sources of fuel that you could use if necessary?

Rural Households:

- How much land is currently cultivated?
- How much labor is required to work this land?
- Have any shocks impacted agriculture in the past year? What type(s)? How did you cope with the shock(s)?

HEALTH

- Is anyone in this household suffering from long-term illness (greater than three months)? Provide details.
- Is anyone in the household suffering from a short-term illness (less than three months)? Provide details.
- Are any household members disabled? Are any household members pregnant?
- Do you have access to healthcare?
- Do you have access to a toilet? What type?
  - Is there a place where you can wash your hands as you come out of the toilet?

SHOCKS

- Has your household been affected by any shocks (environmental, economic, social, other) recently? Probe for details.
- How did the shock affect your household? How did you attempt to manage the shock? Probe for what the household does to reduce risk before a shock occurs, and what they do after the shock occurs to cope.
- What are the major threats and challenges facing the well-being of your household?
  - How do you respond to these threats and challenges?

MIGRATION

- Have any members of your household left this area?
  - If yes, why did they leave? Where did they go?
  - Who migrated? How often do they return?
- Do they send goods or cash? What type?
  - What proportion of household income is made up by these gifts and cash?

INCOME

- What are the main sources of income for this household? (Describe for all members, including children.)
- How are you paid for labor? What are currently the three largest expenses for your household? (i.e. food, healthcare, education, rent, transportation, etc.)
- Do people in this household have skills and talents that they are unable to use at this time?
- Have any changes occurred in your ability to obtain (purchase, barter) items?
- Have you had to use savings to meet household expenses?
- Have you had to sell any assets to meet household expenses? Which assets?

TRANSPORTATION

- What types of transportation do you use to get to work, to markets, and to access services?
  - If you did not have this form of transportation, how would you get to work, market, school, health clinics?

SOCIAL SUPPORT

- How do members of the community act together to solve problems affecting the community? What community events or meetings do you participate in?
- Have there been any recent conflicts in this community?
  - What is the cause of these conflicts? How have they affected people?
- Are there conflict resolution mechanisms working to solve these problems?

COMMUNICATION AND INFORMATION

- How do you access most health information (radio, television, health clinic, etc.)?
- How do you access most market information?
- For important messages, which media source do you find most reliable (e.g., newspapers, TV, radio, NGOs, government)?

MATRIX TO ORGANIZE COLLECTED INFORMATION

(A sample is provided on page 9 of this tool)

Collected Information	Livelihood Groups		
	#1	#2	#3
Recent Shocks			
Assets			
How does this group make or receive money?			
How does this group get food? How much food must they purchase?			
Seasonal variations to money, food, or illness?			
What does this group do to cope with scarcity or shock?			

SOURCES

- TANGO International. 2008. *Sustainable livelihoods manual*. Prepared for Heifer International Africa Area Program. Tucson, AZ: TANGO International.
- TANGO International. 2008. *IHD training manual*. Prepared for Catholic Relief Services. Tucson, AZ: TANGO International.
- TANGO International. 2007. *Monitoring and evaluation manual*. Prepared for ADRA International Food Security Department. Tucson, AZ: TANGO International.
- TANGO International. 2005. *Conceptual approach to food security assessments.* Prepared for ACDI/VOCA. Tucson, AZ: TANGO International.
- TANGO International. 2004. *Emergency food security assessment handbook.* Prepared for the U.N. World Food Programme. Rome: World Food Programme.
- TANGO International. 2004. *Development relief program guidance—part III, analytical framework, methods, and tools.* Prepared for the U.S. Agency for International Development, Bureau for Democracy, Conflict, and Humanitarian Assistance, Office of Food for Peace. Tucson, AZ: TANGO International.
- TANGO International. 2002. *Household livelihood security assessments—A toolkit for practitioners*. Prepared for CARE USA, Partnership and Household Livelihood Security Unit. Tucson, AZ: TANGO International.
- The Sphere Project. 2004. *Humanitarian charter and minimum standards in disaster response.* Geneva: The Sphere Project.
- International Federation of Red Cross and Red Crescent Societies. 2007. *Global food security assessment guidelines*. Geneva.

TOOL 10

HOUSEHOLD FOOD SECURITY PREPAREDNESS

PREPAREDNESS

This tool will help you to:

- Raise household awareness about the need to prepare for shortages of food, water, income, and essential services that may occur during a severe influenza pandemic
- Increase the ability of households to manage and survive in the event that an influenza pandemic disrupts regular food and water supplies or reduces household income

Who will implement this tool:

- The ***municipal leadership team***
- Municipal staff dedicated to community outreach
- Community outreach representatives and volunteers

OVERVIEW

WHY ARE HOUSEHOLD PREPAREDNESS ACTIVITIES IMPORTANT?

- Although households may have coped with natural disasters in the past, many have not experienced a disaster with extreme health impacts and a global disruption of goods and services. They may not be considering how a pandemic will debilitate the household in terms of sickness, lost income, or challenges obtaining food.
- National governments have historically been unable to respond efficiently to large, nationwide disasters because of limited staff and resources.
- International organizations that have responded to local disasters in the past will not have the staff or resources to respond to all pandemic-affected areas around the world to the extent required.
- Community-based organizations (CBOs) may provide critical assistance to households during the pandemic, but will themselves be struggling with illness, absenteeism, and closures.
- In other types of disasters, municipalities often provide public shelter and communities are encouraged to gather together to weather the shock. This type of response is not possible in a pandemic because restricting public gatherings is an important strategy that municipalities will use to reduce the spread of a virus. (For more information, see Tool 4, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality.* For alternative ways to use public shelters, see Tool 5, *Triage: Prioritizing Care to Reduce Deaths*.)

Every community and household must do the best job possible to prepare for standing on their own for the duration of each pandemic wave.

WHAT YOU SHOULD DO IF THE PANDEMIC VIRUS *IS ALREADY PRESENT* IN YOUR MUNICIPALITY

If there is no time to prepare because the pandemic virus has already arrived in your municipality, use all available communication channels to spread the critical messages that will help to protect food security and livelihoods. You can use the same community channels that you are using to spread essential health and social distancing messages, such as newspapers, television, radio, websites, megaphones, loudspeakers mounted on vehicles, email lists, and telephone trees.

(For information about writing and sharing effective key messages, see Tool 12, *Fundamentals of Communication During Crises and Emergencies*, or the "Brainstorming" section of Tool 6, Session II: *Training for Community Health Responders*.)

PROTECT FOOD SECURITY AND LIVELIHOODS: CRITICAL ACTIONS FOR HOUSEHOLDS DURING A PANDEMIC

FOOD

- Eat food that will spoil first, for example, fresh vegetables and meat.
- If you have a lot of fresh food on hand, use traditional food preservation methods to prevent this food from spoiling.
- Try to regulate the food you eat each day so that what you have on hand will last 6 to 12 weeks, but do not threaten daily nutritional needs of any family member.
- Organize exchanges among neighbors using ***social distancing*** measures so that you are able to increase the variety of foods you eat.

WATER

- Collect and store water in covered containers in case water supplies become scarce.
- Do not store water in containers that have been used to store nonfood products.
- Buy household bleach, purification tablets, or iodine so that you can purify water if your sources become contaminated.

MONEY

Only spend cash on items that are absolutely necessary to keep your household healthy for 6 to 12 weeks. Food, water, cooking fuel, and medical supplies are priorities. *You will find "How to" information for food and water actions in later sections of this tool.*

WHAT YOU SHOULD DO IF THE PANDEMIC VIRUS *HAS NOT YET* ARRIVED IN YOUR MUNICIPALITY

STEP 1: RAISE HOUSEHOLD AWARENESS

LEARN, PLAN, AND PREPARE WHILE YOU ARE STILL ABLE TO DO SO

The most important first step to help households cope with a pandemic will be to raise their awareness of how a pandemic could affect them and what can be done to prevent or lessen the impact. During a severe pandemic, *everyone* in the municipality may suffer because food and basic goods are not available, or because available food and basic goods are unaffordable or physically inaccessible, or because available food and water is not safe, perhaps because it has been improperly stored or prepared. In addition to at-risk groups who struggle daily to maintain food security, people who are usually able to access enough money to meet their daily needs could suddenly become food insecure because they cannot go to work due to illness, caregiving responsibilities, social distancing measures, or government closures. Furthermore, they may not be able to access saved cash through banks or Automatic Teller Machines (ATMs) if the global health impact (high rates of work absenteeism and death) disrupts banking systems. If the municipal leadership team provides this group with sufficient preparedness information, they may be able to protect themselves during a pandemic, which will in turn reduce the need for municipal assistance to protect food security.

Organize public meetings, radio and TV interviews and skits, bulletins, and other regular communications through which the public has the opportunity to learn about pandemic influenza and how it could affect not only their health but also their food security and overall household well-being. Awareness and planning for all wealth groups can also help to reduce the chance that the better-off may take actions (for example, hoarding) that directly affect the food security outcome of the poor (no food left in markets because of hoarding). (For more information, see Tool 7, *Food Security in a Pandemic*; Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic*; and Tools 12, 13, and 14 in the *Crisis and Emergency Risk Communications Section*.)

STEP 2: INCREASE THE ABILITY OF HOUSEHOLDS TO MANAGE AND SURVIVE A SEVERE PANDEMIC

A wide variety of community representatives, staff, and volunteers may be willing and able to reach out to households and share information about effective ways to produce, preserve, and store food; treat and store water; and create barter and savings groups. It is not critical for this group to be food security experts. However, they should be trusted by the public, and skilled at planning, helping, and communicating with others. Potential community outreach volunteers may include representatives from the following groups and organizations:

- Local nongovernmental organizations (NGOs)
- Community-based organizations (CBOs)
- Religious congregations
- Professional and labor associations
- Local businesses
- School teachers
- Community health and social workers
- Women's groups
- Youth and sports organizations
- Commercial cooperative organizations
- Government extension agencies.

Tool 17, *Volunteer Coordination* offers detailed guidance to help you develop volunteer support that can strengthen pandemic awareness, preparedness, and response. Make sure that all community outreach volunteers receive training on the threat of the pandemic as provided in this Toolkit, as well as training and technical assistance in the four key preparedness actions listed in the box below.

Four Key Preparedness Actions

A. Prepare for food shortages
B. Prepare for shortages of safe water
C. Prepare for disruptions in household income
D. Strengthen neighborhood support systems

HOW CAN HOUSEHOLDS LEARN ABOUT THE FOUR KEY ACTIONS THAT WILL REDUCE POSSIBLE HARDSHIP AND HUNGER DURING A PANDEMIC?

Organize community meetings to provide clear information about how households can prepare for and respond to a severe pandemic adequately and in time. Do this *before* an influenza pandemic reaches your municipality. Organizing meetings *sooner rather than later* is critical: once the pandemic reaches the community, public gatherings should be avoided to prevent the spread of the disease.

At community meetings, help households develop a preparedness plan that addresses the four key preparedness actions listed on page 3. Handout 1 contains a sample plan that has been filled in by an imaginary household. Once community outreach volunteers have received training, use this sample plan to help them practice identifying the strengths and gaps in household preparedness, so that they are ready to offer guidance. Handout 2 contains a blank household plan.

There will be three general categories that households fall into with respect to the ability to prepare for a pandemic:

Group 1: Those who are able to stockpile sufficient quantities of emergency food and water on a moment's notice.

All guidance in this tool is relevant. Specific attention should be placed on the consequences of hoarding found under the heading "Household Action 1: Prepare for Food Shortages."

Group 2: Those who are able to stockpile emergency food, water, and cash by putting aside a little bit at a time.

All guidance in this tool is relevant.

Group 3: Those who struggle with hunger and poverty every day.

Some guidance in this tool will be difficult for Group 3 because it involves setting aside a little extra food or money, when these households and individuals seldom have enough to meet daily food and income needs. This group should be identified as soon as possible so that they can be referred for food rations, cash transfers (if appropriate), volunteer aid, and other existing assistance services in the municipality that may be able to help them meet their nutritional and income needs during the pandemic. Tool 9, *Identification of People Most at Risk of Food Insec*urity provides guidance on this topic. Tool 7, *Food Security in a Pandemic* offers suggestions for actions that the municipal leadership team can take to reduce potential food security problems for vulnerable groups.

HOUSEHOLD ACTION 1: PREPARE FOR FOOD SHORTAGES

Each household must prepare for food shortages that may occur during a pandemic because global, regional, and local transportation systems are disrupted, or because people panic and begin hoarding too much food, or because of the way the pandemic unfolds in your municipality.

Each household should store enough nonperishable food (foods that will not spoil) to feed household members for 6 to 12 weeks. In a severe and prolonged pandemic, civil disorder, theft, and conflicts over common property foods could become a problem. To be certain that household food security is protected, even people who are growing food and raising livestock or poultry should build up emergency food stockpiles. If a household does not have adequate storage space, they may need to create a food storage area; guidance is provided later in this tool.

Community outreach volunteers may need to help households with:

- Calculations for determining how much food to store
- Identifying nutritional gaps in household storage plans
- Suggestions for nonperishable replacements of perishable foods

WHEN SHOULD HOUSEHOLDS START BUILDING EMERGENCY FOOD STOCKS?

There is no way to predict when a pandemic may occur! Accumulate emergency food stocks as soon as possible. Purchasing or growing food before a severe pandemic impacts the world helps to avoid the steep price increases and shortages that are likely to occur.

Set aside a little at a time:

- If you grow your own food, save a bit of each nonperishable crop surplus.
- If you own livestock and/or poultry, determine the number of animals that will be needed to provide food for your household for 6–12 weeks, and do not slaughter or sell these animals before the pandemic arrives.
- If you buy most of your food at markets, purchase extra portions during each shopping trip until sufficient emergency food stocks are accumulated.

Important! Only consider setting aside surplus food *after* the daily nutritional needs of all family members have been met.

WHAT TYPES OF FOOD SHOULD BE STORED?

The types of food available for storage will depend on supplies in local markets, the foods that people grow, foods that can be gathered in the wild or on common property, and eating preferences. In general, households should store foods that are nonperishable, are relatively affordable, and are capable of meeting the nutritional needs of household members over an extended period (one to three months). The box below provides a list of recommended foods to store at home. Use this list as a starting point, and add nonperishable foods that are widely accepted in your region.

Recommended Nonperishable Foods to Store at Home	
Protein • Dried beans and peas • Dried fish and meats • Canned fish and meats • Peanut butter **Grains** • Rice • Corn • Wheat • Flour • Pasta • Cereal • Oatmeal • Whole grain crackers • Instant baby rice cereal **Fats** • Cooking oil	**Fruits and Vegetables** • Tubers • Dried fruits and vegetables • Canned vegetables, fruit, tomatoes • Canned/bottled 100 percent fruit juice • Tomato sauce **Shelf-Stable Milk** • Infant formula (if the mother is not breastfeeding) • Nonfat dry milk • Dehydrated milk • Canned evaporated milk **Miscellaneous Foods** • Canned or jarred baby food • Dehydrated and canned soups, stews, chili • Salt, sugar, other condiments
If you have a lot of fresh food on hand, use traditional food preservation methods to prevent this food from spoiling.	

HOW MUCH FOOD WILL EACH HOUSEHOLD NEED?

On average, the nutritional requirement for an individual is 2,100 calories per day (This is actually kilocalories or kcals.) Complex carbohydrates from grains contribute the most calories. Protein should make up 10 to 12 percent (52 to 63g) and fats should make up approximately 17 percent (40g). Using these standard guidelines, the table offers an example of how much food one adult would need to meet nutritional needs for one month. Handout 3 provides detailed guidance to help you figure out the specific nutritional needs of different groups of people based on age, sex, and whether women are pregnant or lactating.

Adapt the table to include the nutritionally balanced foods that are preferred by people living in your region. Remind people that fresh fruits and vegetables are the best choice, but if households do not have secure access to gardens, farms, or common property where these items are grown, they can ensure that they will have a source of essential micronutrients during a pandemic by stocking canned or dried fruits and vegetables.

Food	Quantity for 12 weeks—one adult*
Grains (corn, rice, wheat)	35 kg
Protein (dry beans, peas, lentils)	5 kg
Fats (oil)	3 kg (3–4 liters)
Vegetables	84 cans/ 6 kg dried
Fruits Juice	84 cans/ 6 kg dried 84 cans
Sugar	1.25 kg
Salt	1.25 kg

* Based on the minimum ration of 2,100 kilocalories per day with protein comprising 10 to 12 percent of total energy, and fat comprising 17 percent of total energy. See Handout 4 for energy requirements of children, breastfeeding women, and others

HOW MUCH IS TOO MUCH? THE CONSEQUENCES OF HOARDING

Equally important to the messages shared about storing *enough* food will be messages related to the public about the consequences of storing *too much* (hoarding). Those in a community who are better off may begin to hoard food in fear and panic. Hoarding will not only make food less available, it will also lead to higher food prices which makes it more difficult for those on limited incomes to purchase enough food. History has shown that hoarding in panic can lead to famine deaths.

You can help reduce hoarding by taking the guesswork and panic out of planning. Encourage households to keep a diary of the food they consume and the essential supplies they use in a week. Once they have done this for several weeks they will be able to estimate the amount that they will need to get through a wave of the pandemic by multiplying each week's amount by 12 (the greatest number of weeks that the World Health Organization believes a wave might last). Remind households that by purchasing far more than they need, they risk contributing to a neighbor's hunger and suffering.

HOW SHOULD STORED FOOD SUPPLIES BE MANAGED?

Once emergency food stocks have been built up, households must periodically rotate items in the stockpile—eating stored food first and replacing it with newly acquired food. Encourage households to record the date that they place an item into storage on the container to help them keep track of which items were placed in storage first.

During the pandemic, try to regulate the food you eat each day so that what you have on hand will last 6 to 12 weeks, but do not threaten daily nutritional needs of any family member.

CONSTRUCTING AND IMPROVING HOUSEHOLD FOOD STORAGE SPACES

Even when community food storage spaces exist, encourage households to establish or improve existing household food storage spaces. At community preparedness meetings, ask people to share ideas about how they currently store food. People in the community who own or work on land may have knowledge of traditional food storage methods that are appropriate for your region. For example, some foods, such as mature potatoes, cassava, and jicama can be stored underground, or in trenches or pits for short periods of time. Invite a local agriculture extension agent to community meetings to discuss and provide details for these traditional storage options.

Although the rural areas often have the advantage of more land, many foods can be grown in urban backyards and even on apartment patios and porches. Avoid locating gardens and other food projects in distant or unprotected areas as theft tends to increase in times of scarcity.

Brainstorm with each other about ways that households could create extra storage space using existing supplies. Neighbors may decide to construct a shared space. During the pandemic, social distancing measures will need to be followed when people access shared spaces. There is also a risk that as food becomes scarcer, food supplies in shared spaces may be stolen.

There will be a number of households in all municipalities that will not be able to afford to build additional food storage space. Identify these people as soon as you are able and develop strategies to help them protect and store emergency food and supplies.

WHAT CAN CAUSE STORED FOOD TO GO BAD?

If food is not stored properly it may go bad before people eat it. For example, if beans are stored at too high a temperature or stored in an area with too much moisture they become very hard, which makes them difficult to cook properly. Spoiled food creates waste, is less nutritious, and can cause illness which makes it hard for people's bodies to benefit from nutrients that are available in other foods they are eating.

The storage area must take into consideration four conditions that can cause food to go bad:

- **Moisture:** The storage area should be cool, dry, and well ventilated.
- **Insects:** Wood ashes, dried pepper, and other local plant products can help prevent insect infestation. Chemical insecticides should be avoided as they may cause poisoning.
- **Animals:** Food should not be stored on the ground or floor. Try to construct the storage areas so that insects and rodents cannot easily get to food stocks. Traps can be set, but chemical pesticides should be avoided.
- **Air:** Although it may not be possible in all cases, storing food in air-tight containers will prevent foods from spoiling due to decay, mold, and insects. Sealed containers are the next best option.

GROWING AND RAISING YOUR OWN FOOD

In emergency situations, particularly during a prolonged influenza pandemic, growing your own food can greatly improve your chances of survival. How much a single household can grow depends on how much land and water is available and the kinds of plants the local climate and soil will support. Given adequate access to land and water, a well-planned home garden has the potential to supply most of the non-staple foods that a household needs to ensure proper nutrition, including roots, tubers, vegetables fruits, legumes, herbs, and spices. Root crops tend to be rich in energy, while legumes are important sources of protein, fat, iron, and vitamins. Green leafy vegetables, and yellow- or orange-colored fruits, provide essential vitamins and minerals, particularly foliate, and vitamins A, E, and C.

Municipal agriculture extension agents and local development NGOs, as well as neighbors who grow their own food, are excellent sources of information and assistance. Contact these groups as soon as you can and encourage them to speak at community preparedness meetings about local foods that grow well in the area, foods that can be grown quickly, and foods that will store well for up to 12 weeks. Develop a list of these foods and share this information through available communication channels (i.e. radio, newspaper, printed bulletins). Provide links to contacts where people can find out more about growing their own food. If the municipality has the financial resources to distribute short-cycle seeds to households, this can be a low-cost way of increasing local food supplies.

Start Now! There's no time to waste. An emergency can happen at any time. It takes 2 to 5 months for vegetables to mature and for animals to reproduce; it takes 1 to 10 years for trees to produce fruit or nuts.

WHAT TYPES OF NONFOOD ITEMS SHOULD BE STORED?

The most obvious and urgent nonfood need in the event of a household emergency is drinking water. Household Action 2 provides guidance on storing and treating water.

Other essential nonfood items include fuel for cooking and heating, batteries for flashlights and radios, candles and matches, bleach or purification tablets to ensure clean drinking water, medicines, and first aid supplies. It may be difficult to obtain these items in the event of shortages or transportation disruptions. By acquiring them now, you will be better prepared to manage a 6 to 12 week influenza pandemic wave, as well as many other disasters.

HOUSEHOLD ACTION 2: PREPARE FOR SHORTAGES OF SAFE WATER

As illness spreads during a severe pandemic the number of workers that maintain public works may decrease. As a result, water quality and availability may deteriorate. Healthy adults can only live 3 to 4 days without drinking water—highlighting the critical importance of storing enough water to meet the needs of all household members should municipal supplies be disrupted. Ensuring the continuity of basic services will be a priority of the municipal leadership team (See Tool 16, Maintenance of Essential Services.) But in the event that water services are disrupted, all households must be alerted before the pandemic arrives in your municipality of the risk of water shortages. Deliver a clear strong message which states that storing a supply of safe clean water is one action that can greatly reduce household suffering during a prolonged pandemic wave.

How much water should be stored?		
Survival needs: water intake (drinking and food)	2.5–3 liters per person/per day	Depends on: the climate and individual physiology
Basic hygiene practices	2–6 liters per person/per day	Depends on: social and cultural norms Because one of the key flu fighting actions is increased hand washing, it is recommended that all households store 6 liters of water per person per day for personal hygiene
Basic cooking needs	3–6 liters per person/per day	Depends on: food type; social and cultural norms
Total water needed per person per day		7.5–15 liters

Adapted from the Sphere Project. 2004. *Humanitarian charter and minimum standards in disaster response.*

Not only must water be available, it must be safe. Without safe water—clean, uncontaminated, and fit to drink—diarrhea, other intestinal illnesses, and poisoning are frequent and, in turn, contribute to malnutrition and dehydration. During a pandemic, if people are sick with these diseases it will be more difficult for their immune systems to fight off the pandemic virus and it will be more difficult for them to absorb nutrients from the foods they are eating.

WHAT MAKES WATER UNSAFE?

Even without the threat of a pandemic, obtaining safe drinking water is a challenge for many households. Water contamination is a common problem in urban and peri-urban areas where people lack access to basic sanitation infrastructure and adequate water services. It is also a common problem in rural areas where people must collect water from unimproved sources such as lakes, rivers, dams, unprotected wells, or springs that may contain harmful bacteria, water-borne diseases, or chemicals. Oftentimes the source of water is safe but water becomes contaminated because of poor storage or hygiene practices such as:

- Unclean hands touch clean drinking water or drinking or cooking utensils.
- Animals get into uncovered containers.
- Water stored in containers that initially held something other than food becomes contaminated by non-food chemical residue.

EDUCATE THE PUBLIC ABOUT INCREASED HYGIENE AND PROPER WATER STORAGE

During a pandemic, the amount of attention given to household hygiene may decrease as caregivers become ill or die. The municipal leadership team and community outreach volunteers should share messages with the public that stress the importance of increased hygiene to prevent the contamination of household drinking water which could lead to other debilitating diseases. Equally important will be increasing the public's knowledge about how to store water safely. The messages below should be shared before, during, and after the pandemic.

Hygiene Tips to Reduce Water Contamination	Water Storage Tips
• Wash hands frequently—with soap or ash is by far the best, but even when soap is not available, hand washing decreases your chance of catching intestinal illnesses. • Dispose of feces properly. • Avoid touching drinking water with hands—take drinking water out of container with a ladle or cup. Avoid drinking directly from water container. • Clean drinking utensils with hot water and soap.	• Do not use containers that have previously been used to store non-food products. • Store drinking water separately from water used for personal hygiene needs. • Store drinking water in narrow-mouthed, lidded containers to help prevent contamination.

HOW CAN HOUSEHOLDS SAFELY TREAT WATER?

If there is a question about the safety of available water, households must be aware of methods for treating it before drinking. Water that is going to be treated should be clear. If it is cloudy, filter it through clean cloths or let it settle and draw off the clear water before treating it. Except where noted, the methods listed below can kill disease-causing bacteria and microorganisms. They *cannot* purify water that has been polluted by toxins and chemicals.

Boiling: Bring water to a rolling boil and boil for one minute.

Chlorination: You can use regular household bleach (without scents or additives) to purify water. It is very important to read the label on the bottle to see how much chlorine to use per each liter of water because chlorine comes in different strengths.

As a general rule, use two drops of household bleach (4–6 percent sodium hypochlorite) per liter of clear water and four drops per liter of cloudy water. Mix the water and bleach thoroughly by stirring or shaking in the container and let stand for 30 minutes.

Iodine: You can use a tincture of iodine from a first aid kit or the local pharmacy to disinfect water. As a general rule, add five drops per liter of clear water, or 10 drops per liter of cloudy water to disinfect the water. Mix water and iodine thoroughly by stirring or shaking water in the container and let stand for at least 30 minutes.

After treatment, water should be stored in clean, covered containers.

Purification Tablets: Some drugstores or sporting goods stores sell commercial tablets which release chlorine or iodine to disinfect water. Follow the directions on the label for proper use.

Filtration: Clay filters or slow sand filtration can reduce many large biological contaminants. Rapid sand filters cannot by themselves purify water, but they can prepare it for treatment by chlorination.

Solar Disinfection: Solar disinfection can also purify water to make it safe to drink. Fill a clean plastic bottle three quarters full, shake it 20 times, and then fill the rest of the bottle. Leave the bottle out in direct sunlight (for example, on the roof of a house) for six hours straight. If it is cloudy leave the bottle out for two full days. Solar disinfection only works if the water is clear.

HOUSEHOLD ACTION 3: PREPARE FOR INCOME DISRUPTIONS

Because households may only be thinking about how a pandemic virus could affect their health, it is important to stress the ways in which a severe pandemic might impact household income. Cash shortages may arise during a severe pandemic for a number of reasons.

- People may not be able to get to work due to illness, caregiving, social distancing measures, or transportation disruptions.
- People may not be able to access banking systems and ATMs for the same reasons, or because banking systems have shut down.
- Remittances may decrease because people all over the world are experiencing decreased income.
- Households may have to spend more money on healthcare or funeral expenses.
- Credit may not be available.

Two ways that people can prepare for a loss of household income are saving and barter.

Saving is the practice of regularly putting aside a portion of the wages you earn, or of the crops you grow, or of the animals you raise. The idea is to not use or spend these savings until you absolutely need to, which is usually during times of crisis when you do not have sufficient other resources available. Sometimes, groups of households save or pool their resources (e.g., cash, food, animals). In an emergency, people in savings groups can withdraw part, all, or even more than what they have contributed, with the obligation to pay the amount back when times get better.

The municipal leadership team and community outreach volunteers can help households identify existing savings groups in their community, or help them to form new savings groups. Should any group in the municipality be identified as lacking access to savings services, discussions should be held with existing registered groups (microfinance institutes, cooperatives, producer groups, development programs, etc.) to determine the possibility of offering savings services to these groups. Tool 9, *Identification of People Most at Risk of Food Insecurity*, can help you to determine which groups might not be able to access savings services.

Barter is essentially a practice of trading goods and services without using money. Everybody needs food, and most people have skills, abilities, or property that they can use to produce other goods or services that the people who have an excess supply of food are willing to trade for. Examples of bartering include:

- Trading one kind of food for another
- Providing a needed service (repairing a roof, building a food storage space, providing childcare) or goods that are made and normally sold (furniture, candles, clothes) in exchange for food
- Loaning unused land to a neighbor who doesn't have enough land to grow crops but has the physical ability to work it—both households can share in the harvest

Remember! Families that struggle each day with poverty and hunger will not be able to afford to prepare financially for disruptions in household income. It is important to identify these households so that they can be referred for food transfers, cash transfers (if appropriate), volunteer aid, and other existing assistance services in the community that may be able to help them meet their needs during a severe pandemic.

Yes! You can barter DURING a pandemic!

Sharing among households in the same vicinity can be accomplished even when social distancing is imposed.

People can talk across a fence or street and can leave and pick up bartered items on a porch or patio without coming into close contact. Exchanged items should be disinfected (with diluted household bleach for example) before using.

To get the barter process started, encourage small groups of households to identify what each household can produce or provide and what each household may need. Individual arrangements can then be made for sharing resources when the need arises. Handout 3 can help households keep track of who they will share resources with and how and when they will exchange items once social distancing measures are imposed. The success of bartering efforts can be increased by an overall strengthening of neighborhood support systems.

HOUSEHOLD ACTION 4: STRENGTHEN NEIGHBORHOOD SUPPORT SYSTEMS

Neighborhood support systems can be a good source of information for identifying vulnerable and isolated households during a pandemic. The municipal leadership team should encourage neighborhood groups to contribute in this way.

The ability of communities and households to bounce back after a disaster can hinge on strong and organized social networks. If measures are not taken to strengthen neighborhood support systems, civil disorder, conflicts, and riots may be more frequent during a prolonged and severe pandemic, and the overall ability of the community to get back to normal following the pandemic will likely deteriorate.

Poor households typically depend on strong social relationships in times of need more often than better-off households, but the conditions of a severe pandemic will require that all economic and social groups strengthen and combine their social systems. Diverse social networks will have a greater pool of resources to draw from. Encourage neighborhood groups to develop detailed plans for sharing resources while respecting social distancing requirements that may be in place. Once a pandemic arrives in your municipality, this will probably require establishing staggered pick-up or access times. See Handout 4 for a sample plan that can help households plan for resource sharing within their neighborhood group.

Strong social networks can also contribute to how risk and crisis communication is received and responded to. Small and isolated social networks contribute to slower information flow, and at times, reduced trust for authoritative sources of information, especially if authorities are perceived as being responsible for stressful circumstances, such as limited water or food supplies. Larger and more integrated social systems may have stronger ties to the political structures and sources of information that will help keep their community functioning during a severe pandemic wave. Strong neighborhood networks will also be more likely to organize volunteer response efforts that help the community survive as a whole. (For more information, see Tool 17, *Volunteer Coordination*.)

SAMPLE HOUSEHOLD PANDEMIC PREPAREDNESS PLAN FOR TRAINING COMMUNITY OUTREACH VOLUNTEERS

Imagine that a household has completed the following preparedness plan. Based on the information they have provided, identify strengths and gaps in their plans. Using Tool 10, Household Food Security Preparedness as a guide, as well as the knowledge gained from the other tools in the pandemic toolkit, what recommendations would ensure that this household is prepared for food and water shortages, disruptions in income, disruptions in basic services, and limited public assistance?

Household Pandemic Preparedness Plan

Family size: 5
Family members/ages: mother, grandmother, children ages 15, 7, and 3

	Grains (corn, rice, wheat)	Protein (dry beans, lentils, peas)	Fats (Oil)	Vegetables & Fruits	Sugar	Salt
How much food will our household need to survive a pandemic wave?						
How much food do we have on hand right now? List not only stored food, but fruit trees, vegetables, livestock, poultry, etc.	50 kg rice 25 kg corn meal	6 chickens Daily eggs 25 kg beans 3 cans powdered milk	6 liters corn oil	In home garden, maize, squash, chili, mango, yucca, avocado, guava.	5 kg	2 kg
How much more of each food group do we need to obtain?						
Where and how will food be stored?	*In sacks and buckets outside of the house.*					
How much water will our household need to survive a pandemic wave?	*5 people in our family = 100 liters a week.*					
How much water do we have available?	*We have piped water. There is plenty available.*					

How much water do we need to obtain so that we have this amount on hand?	We do not need to collect–we have piped water to the house that we will depend on.
How will we store our water? How will we purify it, if necessary?	We have clean piped water to the house. I don't think we'll need to purify or store any. We do have household bleach, but don't know how to use it to purify water.
How much money can we begin to save each week, so that we have cash during a pandemic?	None
Do we have all necessary non-food items on hand? What else do we need to obtain?	Connected to municipal gas service for cooking fuel. We have candles, matches, and first aid supplies. We have bleach, but do not know how to use it to purify water.
What do we have (surplus goods) that we might be able to offer our neighbors in trade?	We grow more mangos and maize than our household usually eats, but we do not want to share these because we are afraid that it may be all the food we may have when other foods run out.
What do we need that we cannot purchase and may need to trade for?	Don't know.
What volunteer services could we offer to our community during a pandemic?	We have a ham radio and 15-year-old son has some experience using it to communicate. Grandmother used to teach school.
How will we stay informed about recommended community guidance during a pandemic?	Radio.
Who do we contact in the municipality if we find that we do not have enough food or cash to last 6 to 12 weeks?	Don't know.

HOUSEHOLD PANDEMIC PREPAREDNESS PLAN FOR TRAINING COMMUNITY OUTREACH VOLUNTEERS

Household Pandemic Preparedness Plan

Family size:
Family members/ages:

	Grains (corn, rice, wheat)	Protein (dry beans, lentils, peas)	Fats (Oil)	Vegetables & Fruits	Sugar	Salt
How much food will our household need to survive a pandemic wave?						
How much food do we have on hand right now? List not only stored food, but fruit trees, vegetables, livestock, poultry, etc.						
How much more of each food group do we need to obtain?						
Where and how will food be stored?						
How much water will our household need to survive a pandemic wave?						
How much water do we have available?						

How much water do we need to obtain so that we have this amount on hand?	
How will we store our water? How will we purify it, if necessary?	
How much money can we begin to save each week, so that we have cash during a pandemic?	
Do we have all necessary non-food items on hand? What else do we need to obtain?	
What do we have (surplus goods) that we might be able to offer our neighbors in trade?	
What do we need that we cannot purchase and may need to trade for?	
What volunteer services could we offer to our community during a pandemic?	
How will we stay informed about recommended community guidance during a pandemic?	
Who do we contact in the municipality if we find that we do not have enough food or cash to last 6 to 12 weeks?	

CALORIES (ENERGY FROM FOOD) REQUIREMENTS

For initial planning purposes, use 2,100 calories (kcal) per person per day as the average minimum daily energy requirement. This is based on a typical population in a warm climate undertaking light physical activity.

The bulk of people's calories will come from carbohydrates in the form of grains, vegetables, fruits, and other sources. Additional dietary needs include:

- *Protein: 10 to 12 percent of the energy in the diet should be in the form of protein (i.e., 52 g to 63 g of protein).*
- *Fat/oil: At least 17 percent of the energy in the diet should be in the form of fat (i.e., 40 g of fat).*
- *Micronutrients: A range of micronutrients—vitamins and minerals—are required for good health. These can come from eating a variety of foods.*

The table below lists the recommended daily allowances for different age/gender groups. The nutritional needs of two groups (young children and pregnant and lactating women) stand out as being the most different from other ages. Young children (<2 years) require proportionally more fat in their overall diets (30 to 40 percent) compared to other age groups (20 percent). Women need extra energy and protein during pregnancy and lactation.

100% Recommended Daily Allowances for Different Age/Gender Groups*

Age/Gender	Recommended Energy Allowance (kcal/d)	Recommended Protein Allowance (g/d)	Fat (g/d)
Child 1–3 yrs	1300	16	45–58
Child 4–6 yrs	1800	24	40
Child 7–10 yrs	2000	28	45
Non-pregnant female 11–50 yrs	2200	47	45–50
Female 51+ yrs	1900	50	36–42
Male 11–14 yrs	2500	45	50–56
Male 15–18 yrs	3000	59	57–67
Males 19–50 yrs	2900	60	55–65
Males 51+ yrs	1900	63	36–42
Pregnant female 20+ yrs	+300	+13	+6–7
Lactating female 1st 6 months	+500	+18	+10–11
Lactating female 2nd 6 months	+500	+15	+10–11

*From the National Research Council's Recommended Dietary Allowances. National Academy Press, 1989.

HOUSEHOLD PLAN FOR SHARING RESOURCES WHEN SOCIAL DISTANCING MEASURES ARE IN PLACE

Family name:	
What other households will we share resources with? List name of each household and resource shared.	
How and where will we exchange items?	
For shared resources such as water tanks or food storage units that will need staggered access times: What time of day will my family access this resource?	

SOURCES

- AED (Academy for Educational Development) and IFRC (International Federation of Red Cross and Red Crescent Societies). 2008, 25 June. *Food, nutrition, and livelihood preparedness for a pandemic influenza disaster: Guidance for low-income countries.* AED/IFRC Working Group.
- CDC (U.S. Centers for Disease Control and Prevention). *Where has the Safe Water System (SWS) been used – Guatemala.* http://www.cdc.gov/safewater/where_pages/where_Guatemala.htm (accessed April 29, 2009).
- Church of Latter-Day Saints. *Product recommendations.* http://providentliving.org/content/display/0,11666,7546-1-4072-1,00.html (accessed April 29, 2009).
- FAO (Food and Agriculture Organization of the United Nations). 2004, April 26–30. *Food security as rural development strategy.* Twenty-eighth FAO Regional Conference for Latin America and the Caribbean, Guatemala City, Guatemala.
- Billig, P., D.Bendahmane, and A.Swindale. 1999. *Water and Sanitation Indicators Measurement Guide*. FANTA (Food and Nutrition Technical Assistance).
- Ferroni, M. 2007. Facing up to inequality and exclusion to end poverty and hunger in Latin America. *2020 Focus brief on the world's poor and hungry people*. IFPRI (International Food Policy Research Institute).
- Gadgil, A. 1998. Drinking water in developing countries. *Annual review of energy and the environment*, 23: 253–286.
- IFAD (International Fund for Agricultural Development). 2007. *Rural poverty in Peru*. http://www.ruralpovertyportal.org/web/guest/country/home/tags/peru (accessed April 29, 2009).
- Maxwell, S., and M. Smith. 1992. Household food security: A conceptual review. In S. Maxwell and T.R. Frankenberger, eds., *Household food security: Concepts, indicators, measurements—a technical review*. New York: UNICEF/IFAD.
- Miers, H. 2008. *Poverty, livelihoods, and HPAI*. HPAI Research Brief, no. 9. London: DFID (UK Department for International Development). http://www.aitoolkit.org/site/DefaultSite/filesystem/documents/rbr09_2008.pdf (accessed April 29, 2009).
- Oswald, W., A.G. Lescano et al. 2007. Fecal contamination of drinking water within peri-urban households, Lima, Peru. *American Journal of Tropical Medical Hygiene* 77 (4): 699-704
- Quiroz, R., C. Leon-Velarde, et al. 2003. *Making a difference to Andean livelihoods through an integrated research approach*. Research towards Integrated Natural Resources Management. CGIAR Science Council. June 2008.
- Ruel, M.T., L. Haddad, and J.L. Garrett. 1999. Are urban poverty and undernutrition growing? Some newly assembled evidence. *World Development* 27(11): 1891–1905.
- SELA (Sistema Económico Latinoamericano y del Caribe [Latin American and Caribbean Economic System]). 2008, May 30. *Final report on the high-level regional meeting on food security in Latin America and the Caribbean.*
- Sobel, J., B. Mahon, C. Mendoza, D. Passaro, F. Cano, et al. 1998. Reduction of fecal contamination of street-vended beverages in Guatemala by a simple system for water purification and storage, hand washing, and beverage storage. *American Journal of Tropical Medicine and Hygiene*, 59: 380–387.

- Swindale, A. 2004. *Food insecurity and vulnerability.* Presented at the Workshop on HIV/AIDS and Food Aid: Assessment for Regional Programs and Resource Integration, Entebbe, Uganda, November.
- TANGO International. 2008. *Pandemic influenza: Potential impact and response in the Latin American livelihood context*. Prepared for AI.COMM.
- Taub, I. A. and R. Paul Singh. Eds. 1998. Food Storage Stability. CRC Press LLC.
- The Sphere Project. 2004. *Humanitarian charter and minimum standards in disaster response.*
- USAID Food for Peace. 2006. Part II. Module 4. Non-Emergency Humanitarian Assistance. *Commodities Reference Guide*. http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/module4.html (accessed Sept. 2, 2009)
- Van Halem, D. 2006. *Ceramic silver impregnated pot filters for household drinking water treatment in developing countries*. M.Sc. thesis. Delft, The Netherlands, Sanitary Engineering Section, Dept. of Water Management, Faculty of Civil Engineering, Delft University of Technology.
- Vasconcellos, E.A. 2005. *Urban transport in Latin America*. Washington, DC: WRI (World Resources Institute). http://www.embarq.net/documentupload/Urban%20Transport%20in%20Latin%20America%20-%20Eduardo%20Vasconcellos.pdf (accessed April 29, 2009).
- Washington [State] Military Department, Emergency Management Division. Emergency food supply. English: http://www.emd.wa.gov/preparedness/WAEMD-Preparedness-PersonalPreparedness-EmergencyFoodSupply.shtml (accessed April 29, 2009).
- Spanish: http://esemd.convertlanguage.com/enes/preparedness/WAEMD-Preparedness-PersonalPreparedness-EmergencyFoodSupply.shtml (accessed April 29, 2009).
- WFP (World Food Programme). 2002. *Emergency field operations pocketbook.*
- WFP. 2002. *Standardized food and livelihood assessment*. Central American PRRO Preparation. WFP Regional Bureau for Latin America and the Caribbean.
- Wood. 1995. Cited in M. Fay (ed.), 2005, *The urban poor in Latin America,* Washington, DC: World Bank.
- World Bank. 2000. Speech given by K. Gwilliam at the Urban Transport Strategy Review Consultation for Latin America and the Caribbean in Santiago, Chile, November 6. http://www.worldbank.org/html/fpd/transport/utsr/santiago/agendasa.htm (accessed April 29, 2009).
- Wright, J., S.Gundry, and R.Conroy. 2004. Household drinking water in developing countries: A systematic review of microbiological contamination between source and point-of-use. *Tropical Medicine and International Health*, 9(1): 106–117.

TOOL 11

DISTRIBUTION OF EMERGENCY FOOD DURING A PANDEMIC

PREPAREDNESS RESPONSE

This tool will help you to:

- Determine if your municipality is likely to experience food shortages during a pandemic
- Estimate how much food your municipality may need to acquire in order to distribute emergency food rations to protect households from food shortages
- Understand the type of food that should be distributed and the nutritional requirements for food rations
- Determine where and how to properly store emergency food stocks
- Recognize when it will be necessary to begin distributing food.
- Understand how food can be safely distributed during a pandemic

Who will implement this tool:

- The ***municipal leadership team***
- Relevant staff from the following municipal sectors:
  - Agriculture and Natural Resources
  - Food Safety
  - Food and Nutrition
  - Transportation
  - Public Safety and Security
  - Communications

OVERVIEW: WHY YOU NEED TO ACT NOW

An influenza pandemic could very well disrupt normal supplies of food to your municipality even before the virus crosses municipal borders. In many countries food security is handled at the national level, however during a severe pandemic, national governments may be overwhelmed and may be unable to provide timely assistance to every municipality. It is important to start planning for emergency food distribution in your municipality *now*, in the likely event that your municipality will have to become food self-sufficient for a period of time. *Unless you have planned to provide emergency food supplies during the pandemic, your municipality may experience high rates of death and suffering*. For more information on how a pandemic might contribute to hunger and starvation, turn to Tool 7, *Food Security in a Pandemic.*

WHAT DO WE DO IF THE PANDEMIC VIRUS HAS ARRIVED AND THERE IS *NO TIME TO PREPARE?*

If you find that the pandemic is on your doorstep, and you are not prepared to distribute emergency food supplies, the municipal leadership team and supporting sectors must immediately undertake the following essential steps. Once you have completed step A as a team, delegate the remaining steps to relevant sectors so that the work can be carried out rapidly and simultaneously. Guidance for each step is provided in the sections that follow.

A. Assess the potential need for food. Estimate how much food is available in the municipality and how much more food will be needed to protect the population from possible food shortages. Sections 1 and 2 provide guidance on how to do this.

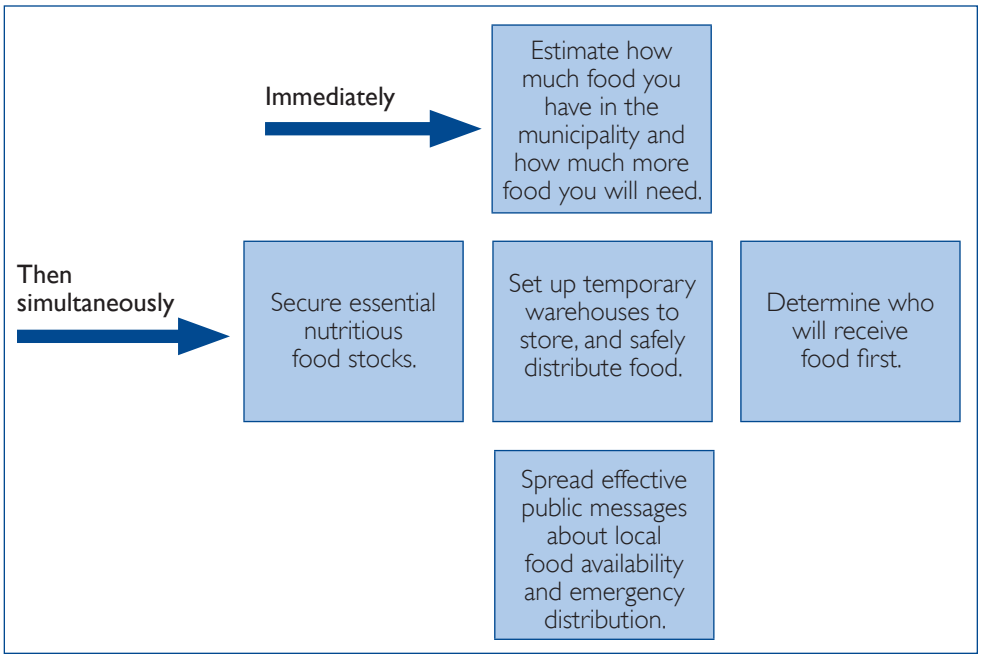
B. Work with private sector providers and any humanitarian agencies present in the municipality to secure essential nutritious food stocks for later distribution. Section 2 provides guidance on how to do this.

C. Work with various public and private organizations to set up and operate temporary warehouses to receive, store, and distribute the food using ***social distancing*** measures. Section 3 provides guidance on how to do this.

D. Coordinate with members of the municipal leadership team that are working to identify those most at risk of food insecurity to ensure that the most needy are the people that get food rations first. Section 4, and Tools 8, *Classification of Food Security Risk Locations*, and 9, *Identification of People Most at Risk of Food Insecurity*, will help you do this.

E. Distribute emergency food rations once the pandemic begins to reduce the ability of people to obtain sufficient amounts of food to meet their daily needs. Section 5 provides guidance on how to determine the appropriate time for food distribution. Section 6 provides guidance on safe distribution methods that can be used during a pandemic.

F. Coordinate with the municipal communications team to ensure that effective public messages about local food availability and emergency distribution are conveyed during the pandemic. Section 7 of this tool and Tools 12–14, on *Crisis and Emergency Risk Communications,* provide guidance on how to do this.



SECTION 1: ASSESSING THE POTENTIAL NEED FOR FOOD

To determine how you will acquire and safely distribute emergency food, you must first assess the potential need for food in your municipality and the current ability you have to respond to food shortages that could last as long as 12 weeks. To do this, the municipal leadership team should focus on two critical aspects of emergency planning:

A. **Level of Risk:** How likely is it that your municipality will experience food shortages during a severe pandemic?

B. **Capacity to Respond:** How able is the municipality to respond rapidly and effectively when the pandemic arrives?

The chart on the following page lists important things to consider in order to address these two critical questions.

A. Level of Risk	B. Capacity to Respond
Where does your food come from and how reliable are these sources? How does the food arrive at the wholesale markets or local distributors, and how likely is it that these routes can be disrupted? Where are the wholesale distributors located? What is the size of the population of the municipality, and how is it distributed geographically? Where do households normally obtain their food supplies? For food that is produced, when is it available to households? When is it not available? For food that is purchased, how does the food get from the wholesale distributors to the retail stores?	Who in the municipality has prior experience in managing emergency food or similar mass distribution programs? Are they available to help? What kinds and quantities of food are produced and available locally? How much is on hand now? What space can be made available for storage and distribution of emergency food supplies? How can transportation be made available to transport food rations from central warehouses to local distribution points? And from these, if necessary, for home delivery? Are there sufficient numbers and types of transportation (e.g. vehicles and drivers, horses, carts, etc.)? What financial and human resources does the municipality have that would be needed to purchase, store, distribute, and manage emergency food supplies?

This information should be combined with the identification of *who is most at risk* of suffering from hunger during a severe pandemic. To identify those most at risk, use Tool 8, *Classification of Food Security Risk Locations*, and Tool 9, *Identification of People Most at Risk of Food Insecurity*.

If you are preparing beforehand, it may also be helpful for the team to understand how food markets function and how households are connected to markets. This provides additional insight into the level of risk to food insecurity that exists in your municipality. Contact central government authorities, or representatives from nongovernmental organizations and international aid agencies, to find out if a recent market assessment has been done in the area. If so, ask them to share the results.

SECTION 2: SECURING NUTRITIOUS FOOD STOCKS FOR EMERGENCY DISTRIBUTION

WHAT TYPE OF FOOD ITEMS SHOULD WE ACQUIRE?

Gather nutritious food items that have an extended shelf life. The table on page 4 provides examples of foods that will not spoil. The items most needed will depend on what foods people are able to obtain by their own means. For example, if there are numerous mango and banana trees in the municipality, on common and private property, and virtually every household owns poultry, people will be able to meet some of their nutritional needs from the protein and fruit and vegetable groups.

Grains	Protein	Fruits and Vegetables	Shelf-Stable Milk	Miscellaneous Foods
Rice Maize Wheat Flour Pasta Cereal Instant baby rice cereal	Dried beans and peas Dried meats Canned fish and meats	Tubers Canned vegetables Canned fruit Canned/bottled 100 percent fruit juice	Dry milk Canned evaporated milk	Cooking oil/ fat source Salt and other condiments Sugar

Important! During a pandemic, you may be purchasing or gathering donations of *fresh* fruits and vegetables. Handle these items carefully and distribute them within a few days.

HOW MUCH FOOD WILL WE NEED?

Your population size and the existing level of food security and vulnerability will determine how much food will be needed every week to feed your population, and how much food you will need to store to last through a wave of 6 to 12 weeks.

Start by determining the number of calories of food energy it would take to feed the entire municipality for one week. It is unlikely that you will have to, or will be able to, provide all the food for the entire population of the municipality because some households will be able to meet all of their food needs, and some will be able to meet some of their food needs. If the municipal leadership team has had sufficient time to encourage household preparedness and to identify those at risk of food insecurity, you may have a good idea of the number of people in the municipality that will need assistance, and the number that are completely or partially food secure. If you do not know, do not worry. Simply use the entire population as a starting point.

For initial planning purposes, use the average minimum daily energy requirement, which is 2,100 calories per person per day. This is based on a typical population in a warm climate undertaking light physical activity.

It is also very important to make sure that the food stockpiled for emergency distribution provides adequate nutritional energy. Make sure that you are acquiring enough protein and fats in your stockpiled foods. Emergency food rations should meet the following requirements.

- *Protein:* 10 to 12 percent of the energy in the diet should be in the form of protein (i.e., 52g to 63g of protein per day).
- *Fat/oil:* At least 17 percent of the energy in the diet should be in the form of fat (i.e., 40g of fat per day).
- *Micronutrients:* Essential micronutrients should also be included, particularly vitamin A (found in vitamin A fortified oil, fortified flour, or fortified sugar) and iodine (found in iodized salt).

The table on the following page shows a full ration for one person for one day. We will use these figures to estimate how much food is needed to feed a municipal population of 10,000 for one week.

EXAMPLE OF AMOUNT OF FOOD NEEDED TO FEED A POPULATION OF 10,000 FOR ONE WEEK

Food Items	Average amount needed per day for one person	Amount needed per person per week (per day amount x 7)	Amount needed to feed a population of 10,000 for one week (per person per week amt. x 10,000) ÷ 1000 = kg
Maize, rice, bulgur	400g	2800g	28,000kg
Legumes	60g	420g	4,200kg
Vitamin A fortified oil	25g	175g	1750kg
Fortified blended foods, such as corn-soya	50g	350g	3500kg
Sugar	15g	105g	1050kg
Salt	15g	105g	1050kg

These sample figures highlight the importance of determining the amounts and locations of local food stocks. By knowing what you have on hand, you will be better prepared to determine what additional food stocks the municipality needs to acquire.

WHERE CAN WE OBTAIN FOOD FOR EMERGENCY DISTRIBUTION?

Emergency food stocks can be obtained either as donations or by direct purchase. If the pandemic virus has already arrived in the municipality, look closely at what food stocks are available locally or from sources relatively close by and determine how these could be best managed to benefit the community as a whole. Purchase, transport, and stockpile basic, high-energy, high-nutrient foods as quickly as possible—hopefully before prices begin to rise and transportation systems break down. You can attempt to make agreements with local merchants to acquire all available food with the understanding that they will be repaid following the pandemic. This type of agreement may also be possible for surplus agriculture.

If you are building up your emergency food stocks in a pre-pandemic phase, and farms or food processing plants are present in the municipality, buying and storing bulk foods in times of abundance (when prices are lowest) will be cost effective.

Potential sources for emergency food stock items	Why they might donate food items or sell them at a reduced cost	Considerations
• Local food producers • Packers • Distributors • Wholesalers • Retail markets	• Overproduction • Inventory control • Packaging errors • Changes in product formulas • Items are approaching a sell-by date	• Ensure that once items reach their expiration date they are not included in the emergency food stock. • Prepackaged items with an extended shelf life are the most durable. • Fresh fruit and vegetables may be acquired *during* a pandemic, but they must be handled carefully and distributed within a few days.

If there is no surplus food in your municipality when you are alerted that the pandemic virus is in your area, immediately contact central government representatives to find out about availability and location of national food stocks for emergencies and prepositioned donations from national and international food aid agencies. United Nations agencies like the World Food Programme and international non-governmental organizations (NGOs) are regularly implementing food programs in many countries. Regular food programming is likely to be shifted to emergency food distribution. However, even if these organizations are in your region, there is no guarantee that you will be able to acquire help from these sources as they are likely to be overwhelmed by many requests for assistance.

SECTION 3: STORING EMERGENCY FOOD STOCKS

Two types of food storage areas will be used to store emergency food rations: warehouses and temporary distribution centers.

WHAT IS A WAREHOUSE?

A warehouse is the place where all the donated and purchased emergency food stocks will be stored until it is time to distribute rations. At the warehouse, food rations will be prepackaged, usually in quantities to last each household for one week, and then delivered to temporary decentralized distribution centers throughout the municipality once the pandemic virus arrives.

Depending on the size of your municipality, the municipal leadership team will need to set up and operate one or more warehouses.

WHAT IS A TEMPORARY DISTRIBUTION CENTER?

Temporary distribution centers are the places that people will come to pick up their food rations. Once social distancing measures are in place, representatives of each household will need to retrieve their rations on a schedule that avoids waiting in line.

Temporary distribution centers may include churches, restaurants, schools, community centers, small enclosed markets, and other organizations and businesses that are not functioning normally during the pandemic.

Important! *During* a pandemic wave, social distancing measures will prevent people from gathering in one place to receive food rations. Consider this when planning for distribution centers.

WHERE SHOULD WAREHOUSES AND DISTRIBUTION CENTERS BE LOCATED?

Warehouses should be easily accessible for trucks or other forms of transport that you will use to deliver food stocks to distribution centers. They should not be located in areas that are prone to flooding and should have adequate drainage in case of flooding.

If you are setting up a warehouse during a pandemic, the location of the warehouse may be temporary, such as a school, a community center, or a large enclosed market and in this case could also function as a temporary distribution center. If you are setting up the warehouse in preparation for a pandemic or other disaster, you might locate the warehouse in rented or donated commercial storage space.

Important! All warehouses and distribution centers must be situated in a secure area to protect against theft.

Temporary distribution centers should be dispersed throughout the municipality in both urban and rural areas. The number and location of these centers will depend on how people's homes are spread through the area and where the most vulnerable members of the community live. Because transportation systems and fuel supplies may be disrupted during a pandemic, the people who will be receiving food rations should be able to easily access the centers by foot, bicycle, horse, or other non-fuel form of transportation.

Carefully consider any complications presented by the location. For example, a warehouse only accessible by a road that is commonly washed out during poor weather will not be very helpful should the pandemic arrive during the rainy season. A distribution center accessible only by public transportation will not be helpful if transportation networks are disrupted.

Wherever you choose to store emergency food stocks, ensure the following:

- Hazardous substances such as pesticides, petrol, and other chemicals are not stored with food.
- Food is not stored on the floor. The storage space should have a strong concrete floor or packed earth to protect against rodents burrowing under stacks.
- The storage space should be cool, dry (protected from rain), and well-ventilated.

HOW MUCH WAREHOUSE SPACE WILL WE NEED TO STORE EMERGENCY FOOD STOCKS?

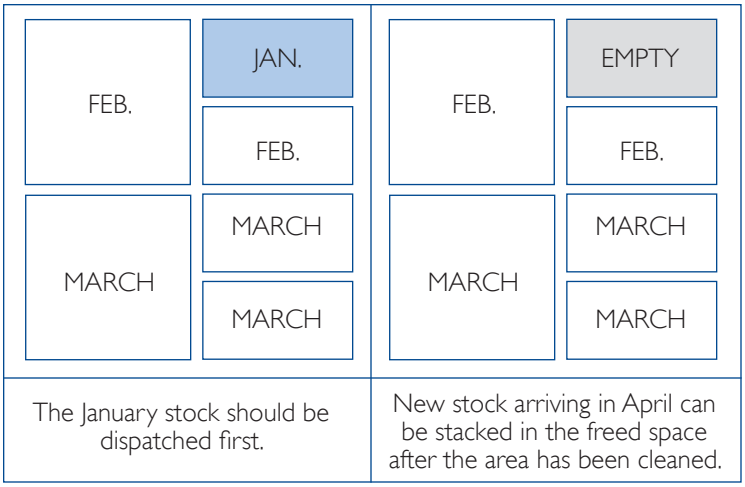
To gauge how much warehouse space may be needed use the following estimates:

- One metric ton (1000 kg) of a bagged food item requires approximately 2 cubic meters of usable storage space.
- One metric ton (1000 kg) of vegetable oil in tins requires approximately 1.4 cubic meters of usable storage space.

Use Section 2 of this tool to determine how much food you will need to store to protect the municipal population's food security.

HOW LONG SHOULD WE STORE EMERGENCY FOOD STOCKS?

The storage period for most food stocks is usually less than three months and almost never for more than twelve months. Food stocks received earliest should be delivered first, a principle known as FIFO (first in, first out). It becomes easy to apply this principle if all acquired food is stacked in sequence and arranged so that staff can easily access all food stocked in the warehouse. FIFO should not be applied to food stocks that are fine for people to eat but will not store well: for example, food that is approaching the expiration date or food that has been repackaged from damaged packages. It is better to issue such food without delay, even before delivering older undamaged stock. The drawing on page 8 illustrates well-planned storage that will help you apply the principle of FIFO.



HOW WILL WE MOVE THE FOOD FROM THE CENTRAL WAREHOUSES TO THE TEMPORARY DISTRIBUTION CENTERS?

Once the pandemic arrives, and you have determined that it is time to distribute the emergency food rations, you will need to quickly and securely move the food stock from the warehouses to the temporary distribution centers. This will require municipal vehicles or donated trucks or animal power. When selecting the vehicles, choose closed vehicles if possible, which offer greater security and minimize damage to the food stocks that could result from exposure to the elements.

WHO COULD CONTRIBUTE TO THE MANAGEMENT OF THE CENTRAL WAREHOUSES AND THE TRANSPORT OF FOOD DURING THE PANDEMIC?

Because at the peak of the pandemic up to 40 percent of the municipal workforce could be ill or caring for ill family members, it will be essential to have people in place that can maintain warehouses and transportation. In addition to municipal staff, a number of representatives from local groups may have good knowledge, resources, and experience to contribute to ensuring adequate food distribution for the municipality. Representatives may include, but are not limited to, members from the following groups:

- Local food distributors, producers, or processors whose regular business has been disrupted by the pandemic
- Transportation companies that may have restrictions placed on travel outside of the municipality
- NGOs, or community-based or religious organizations that have experience with inventories, communication, and organizing

Tool 16, *Maintenance of Essential Services* will help you develop a continuity of operations plan. Other groups in your municipality will be organizing volunteers to help during the pandemic. Be sure that you communicate with them about needed manpower for food distribution. (For more information, refer to Tool 17, *Volunteer Coordination.)*

Reminder! As food supplies may be scarce in a pandemic, it will be critical to provide security for all food warehouses, distribution centers, and food transportation systems to ensure that the stocks are safe and not vulnerable to theft.

Some of the responsibilities involved in managing and transporting food are as follows:

Warehouse Operations	Transportation Services
Receiving and screening incoming food stocks Sorting and storing products in assigned bins and shelves Managing inventories on the FIFO principal and controlling for expiration dates Preparing food rations for distribution Maintaining up-to-date inventory records on all food items and providing the team with accurate reports on the status of supplies Providing regular maintenance, pest control, and security for facilities	Organizing the transport of donated and purchased items to and from the warehouse Maintaining municipal vehicles Recruiting additional volunteer transports like vehicles and drivers Maintaining up-to-date records on vehicle usage and providing timely reports on transportation status and needs Relaying information among other emergency services and the public in general (drivers often function as a vital communications link because they are closest to what is happening on the ground)

Use the following table to begin planning for emergency food storage.

How many warehouses will be needed?	
Where are the warehouses located?	
How much food can each warehouse hold?	
What is the total holding capacity of all the municipal warehouses?	
How many distribution centers will be needed?	
Where are the distribution centers located?	
How much and what types of food should be dispatched to each distribution center?	
What is the distance between the main warehouses and the decentralized distribution centers?	
What is the condition of the roads and bridges? Are they all-weather?	
How will we provide for security of food warehouses and distribution centers?	

SECTION 4: DETERMINING WHO SHOULD GET FOOD FIRST

When food is in short supply, it will be necessary to prioritize who gets food first. There are two tools in the toolkit that can help you do this.

Tool 9, *Identification of People Most at Risk of Food Insecurity* is a step-by-step assessment tool that will help you determine who is most affected by poverty and hunger in the municipality, and who may suffer most from the impact of a pandemic in terms of the ability to meet household food needs.

Tool 8, *Classification of Food Security Risk Locations* provides a measure of the relative risk in one local area (municipality, village, or neighborhood) of a region in relation to another area in the same region. Risk level is classified into three categories: highest, medium, and lowest. The ranking is based on the likelihood that households will suffer from hunger and lost income during a pandemic.

SECTION 5: DETERMINING WHEN IT IS TIME TO DISTRIBUTE EMERGENCY FOOD RATIONS

Knowing when it is time to distribute emergency food rations will be critical to making the most efficient use of stockpiled foods. If food rations are distributed too early, the municipality may run out of food before the pandemic wave is over. If food rations are distributed too late, people may die from starvation, or they may migrate to other areas in search of food. The municipal leadership team should begin to distribute food when the pandemic has begun to affect households' ability to obtain sufficient nutritious food to meet their daily energy needs.

Pandemic influenza can reduce the ability of people to obtain food in three major ways:

1. By *causing illness and death*. Illness can prevent people from harvesting home-grown or raised foods, or from going to the local market, food pantry, or community kitchen.
2. By *disrupting normal food supplies*. Illness or trade restrictions outside the community or municipality can prevent food supplies from reaching your local markets.
3. By *producing unemployment*. Transportation disruptions can make it hard for people to get to their jobs. The disruption of business inputs, supplies, or sales outlets can force employers to lay off local workers and thus reduce or eliminate household income.

The municipal leadership team must remain constantly alert to key indicators in the following list that will (1) warn of the start of problems that may result, and (2) trigger the need to respond in time. The indicators may happen in any order and may happen all at the same time.

Indicator # 1 Less food is available in local markets or from local production.	Actions to be taken: • Begin to distribute food rations following the guidelines in *Section 6*.
Possible problems that may occur as a result: • Normal sources of food may not be available in the near future. • Prices of available food may rise drastically, making staple food items unaffordable to those on limited incomes. • Without alternative sources of food, people may resort to theft or mass migration. • Vulnerable groups may be at risk of malnutrition and even starvation.	
Indicator #2 Economic systems are disrupted.	Actions to be taken: • If food is still available in markets and inflation has not caused drastic increases in the price of food items, consider barter shops, fair price shops that sell basic items at controlled or subsidized prices, and methods of linking people to existing regional or national cash transfer programs. • If food is not available in markets, or prices have risen dramatically, begin to distribute food rations following the guidelines in *Section 6*.
Possible problems that may occur as a result: • Many workers may lack enough income to buy food for their households. • Without alternative sources of cash, people may resort to theft or mass migration.	
Indicator # 3 Each week more people are sick or dying from the influenza.	Actions to be taken: • Begin to deliver food and water to homes of affected families. Refer to *Section 6*. • Connect with health leaders to determine needs for home-based feeding. • Provide food transfers to hospitals and medical centers.
Possible problems that may occur as a result: • Continued transmission of the virus • Dehydration if water is not available • Loss of large sections of the workforce • Loss of main household income earner may result in destitution and poverty.	

SECTION 6: DISTRIBUTING EMERGENCY FOOD RATIONS

Most food distribution to individuals and households will be done through the temporary distribution centers discussed in Section 3 of this tool. Some people will not be able to pick up rations, including the disabled, the elderly, or households where everyone is too ill to leave. Volunteers will need to be enlisted to directly deliver rations to these homes.

The central warehouse will provide prepackaged food rations to the many decentralized distribution points, usually in quantities to last each household for one week. Amounts will vary depending on the number of people in each household.

HOW MUCH FOOD SHOULD BE GIVEN TO EACH HOUSEHOLD?

For each available food item, calculate an average food ration for one person. A sample ration is provided in the table below. Using average rations helps cut down on the manpower needed to calculate household rations based on the various nutritional requirements of each household member. Minimum average rations should provide 2,100 calories per person per day. The average amounts tend to even out within families.

Sample Daily Ration	
Ingredients	Nutritional Value
400g of maize, rice/bulgur 60g of legumes 25g of oil (vit. A fortified) 50g of fortified blended foods (corn-soya blend) 15g of sugar 15g of iodized salt	Energy 2,100 calories Protein 58g Fat 43g

To determine how much food should be given to each household, multiply the number of people in each household by the average daily ration. Handout 1 provides the number of calories that various age/gender need. This will be helpful in determining rations for households that are known to have greater than average needs (i.e. a household with three males between the ages of 15 and 50 and three pregnant or lactating females).

Sometimes in emergencies people consume entire food rations before it is time to receive another. If there is time, write on the food bag the number of days that the ration must last.

It will be very important to make sure that food rations provide adequate nutritional energy. If possible, a professional nutritionist should be consulted to help with this process. If a nutritionist is not available, make sure that protein contributes 10–12 percent of the total calories, and fats contribute 17 percent. Essential micronutrients should also be included, particularly vitamin A and iodine.

For some households, the ration will only need to supplement what they are getting from household supplies. These partial rations should be designed to help meet the minimum energy requirements. Often they consist of less grain, but their contents should be determined once you know how the pandemic is affecting food supplies in the municipality. Rations should supplement the foods that households are having trouble accessing.

WHAT TYPE OF DISTRIBUTION METHOD SHOULD BE USED?

Due to transportation disruptions in other regions, the communities in your municipality could run short on food or cash to purchase food even though the virus has not reached your municipality. The method used to get the food to the people will depend on whether or not influenza has spread to the municipality in epidemic proportions. In all cases, security should be provided to distribution centers.

Social Distancing Is Not in Place	Social Distancing Is in Place
• Dispense rations on one or two designated days of the week through community centers, NGO pantries, neighborhood markets, school or church facilities, or other service groups. • Prepared meals can be provided through shelters for homeless and abused persons, community soup kitchens, hospitals, and senior centers.	• Establish small-scale decentralized drop-off points in neighborhoods and require that representatives of each household retrieve their rations on a schedule that avoids waiting in line. • Attendants should practice all non-pharmaceutical interventions as described in Tool 5, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality.* • Enlist volunteers to deliver rations directly to individual households, especially for people who are unable to pick up rations.

SECTION 7: ADDITIONAL EMERGENCY FOOD MANAGEMENT RESPONSIBILITIES

BUILDING AWARENESS AND COMMUNICATION WITH THE PUBLIC

It is important to promote open and two-way communications with the public. Transparency is critical for building trust, support, and compliance for the food distribution program. Specific methods to inform the public about emergency food rations might include public awareness campaigns, nutrition education, emergency preparedness materials and events, emergency news bulletins, radio and TV announcements and interviews, telephone hotlines, and, if social distancing measures are not in place, public neighborhood meetings to explain the program. Tools 12–14, on *Crisis and Emergency Risk Communications* in this toolkit can provide more guidance in this area.

MONITORING AND REPORTING

Officials acting on behalf of the public must gain trust and confidence through transparency. Even if it is not possible to organize a formal monitoring and evaluation plan, the municipal leadership team and those implementing the food distribution program need to keep track of the process to ensure that the activities are happening according to plan in order to:

- make adjustments and changes needed to ensure compliance with the plan,
- ensure that all those in need are receiving assistance,
- check if the assistance is being used as expected, and
- verify that people are not forced to resort to migration in search of food or employment or forced to use negative coping strategies such as selling assets or land to get money to purchase food.

Everyone involved in implementing the food distribution program will need to pay close attention to these issues, maintain communication with the people receiving the food rations, and report their findings to the team. Tool 9, *Identification of People Most at Risk of Food Insecurity* offers guidance on updating food and livelihood security information following a pandemic wave. This information can help you understand who has suffered the most from the pandemic's impact and who has managed fairly well.

FOOD ENERGY REQUIREMENTS

The table below lists the recommended daily allowances for different age/gender groups. The nutritional needs of two groups (young children and pregnant and lactating women) stand out as being the most different from other ages. Young children (<2 years) require proportionally more fat in their overall diets (30 to 40 percent) compared to other age groups (20 percent). Women need extra energy and protein during pregnancy and lactation.

100% Recommended Daily Allowances for Different Age/Gender groups*			
Age/Gender	Recommended Energy Allowance (kcal/d)	Recommended Protein Allowance (g/d)	Fat (g/d)
Child 1–3 yrs	1300	16	45–58
Child 4–6 yrs	1800	24	40
Child 7–10 yrs	2000	28	45
Non-pregnant female 11–50 yrs	2200	47	45–50
Female 51+ yrs	1900	50	36–42
Male 11–14 yrs	2500	45	50–56
Male 15–18 yrs	3000	59	57–67
Males 19–50 yrs	2900	60	55–65
Males 51+ yrs	1900	63	36–42
Pregnant female 20+ yrs	+300	+13	+6–7
Lactating female 1st 6 months	+500	+18	+10–11
Lactating female 2nd 6 months	+500	+15	+10–11
*From the National Research Council's Recommended Dietary Allowances. National Academy Press, 1989.			

SOURCES

- CARE. 1998. *Food resources manual: or how you can learn to count and keep track of millions of bags of food*. Food Security Unit CARE USA.
- TANGO International. 2004. *Food resources programming principles and program design*. Prepared for World Vision International.
- USAID. Food for Peace. *Commodities reference guide*. Section III Storage/Shelf Life Specifications. http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/sec3.htm
- World Food Programme. *Emergency field operations pocketbook*. Pp. 146–147.

TOOL 12

FUNDAMENTALS OF COMMUNICATION DURING CRISES AND EMERGENCIES

PREPAREDNESS

RESPONSE

This tool will help you to:

- Understand the fundamentals of communication during crises and emergencies

Who will implement this tool:

- The mayor or a member of the municipal leadership team or your emergency response team
- A communications coordinator, public information officer, social communicator, or community educator

A Message from the World Health Organization (WHO) about the Current Influenza Pandemic

> *"Effective communication is paramount. Real-time exchange of information has been a key feature of the response so far. The short time that elapsed between first reports of the outbreak, diagnosis, and international action illustrates this. Communication with the general public is equally important, balancing the need to make people aware of risk without causing panic, and, on the other hand, avoiding complacency. This is a particular concern given the uncertainty inherent in how the new influenza (H1N1) virus will evolve. Evaluating the effectiveness of communications (levels of public awareness, degree of concern) is a key element of the strategy."*
>
> – WHO. *Summary Report of a High-Level Consultation: New Influenza (H1N1)* Geneva, May 18, 2009

BASIC ELEMENTS OF COMMUNICATION

Communications should not be viewed as an activity that is planned, delivered, and then checked off as done. Communication is a process of reaching mutual understanding, during which participants (communicator and audience) exchange, create, and share thoughts, opinions, and information. Being able to communicate effectively is a necessary and vital part of the job of every municipal leader. Well-planned and well-executed communications, fully integrated into every stage of a crisis and emergency response, can help reduce deaths and suffering.

Effective communication requires an understanding of the audience, the goal, the message, and the most effective way to achieve the desired outcome. It also requires acceptance and an understanding of the role of the communicator by the participants.

Effective communication is a two-way activity. Listen to your audience and acknowledge their concerns.

In this section of the Toolkit, you will find information on what makes a good communicator and on how to identify and reach out to a specific audience. The tool will help you to create communication goals and decide which are the most important messages to deliver to specific audiences. Examples and exercises are provided to help you plan which messages you want to repeat and how to reinforce messages with supporting facts and information. You will also find guidance on how to focus on the most important or urgent messages and plan which communication tools, methods, or news media outlets to use.

THE COMMUNICATOR

Communication is a difficult undertaking even when there is not a crisis. Being a good communicator is hard work and takes preparation, focus, and listening skills. Great communicators try to see the audience's point of view.

Trust and credibility are also key principles of effective communication. To build trust you should listen and talk with your constituents and key stakeholders frequently. Remember to be caring (sympathetic) and understanding (empathetic), as well as honest and open. When you show your commitment and dedication and demonstrate competence and expertise, you will be perceived as a credible source.

Good communicators can be great spokespersons, especially during a time of crisis. (See Tool 14, *News Media Communications*, for specific guidance on the role played by effective spokespersons during emergencies.)

TARGET AUDIENCES MAY INCLUDE:

- Employers
- Essential service workers
- Groups of executives or business leaders
- School teachers and parents
- Healthcare providers
- Government workers
- Farmers
- Store owners
- Workers

THE AUDIENCE

Understanding the informational needs of your community will help you plan and execute an effective communication response. Professional communicators try to identify or target audiences before they begin. A target audience is a distinct group of people you want or need to reach. Once you identify who your audiences are you will need to determine how you can reach them. For example, how do you reach people who do not have access to the mass media, cell phones, and the Internet? If you visit the neighborhoods they live in you might notice places you can post flyers or billboards. And you might meet some of the community leaders and shopkeepers who will later help you spread the message. Look for appropriate ways to deliver information to each audience within your community.

Understanding the audience will also help you shape clear, strategic messages that can be conveyed effectively. You should understand what your audience cares about before you begin to shape your communication messages. A worksheet for identifying key characteristics and facts about various target audiences is included at the end of this tool (See Handout 1).

WHEN COMMUNICATING WITH YOUR PUBLIC DURING A CRISIS, ALWAYS AIM TO BE:

- Accurate
- Credible
- Willing and able to correct misinformation and dispel rumors
- Consistent
- Relevant
- Frequent
- Prepared to respond
- Timely (*Timely* can mean at regularly scheduled intervals, or in relation to the stage of the crisis: pre-crisis, at the beginning of the crisis, during the crisis, recovering from the crisis, and post-crisis. For clarification about the stages of a crisis and ideas for a communications response, see the *Communication Tasks* section at the end of this Tool.)

As a mayor or municipal team member you have a unique insight into your local audiences. You understand that if people feel they are not being heard, they will not listen. So it is important not to make assumptions about what people know, think, or want done about risks that threaten their health and safety. Take the time to find out what the community is thinking. You can use techniques such as interviews, facilitated discussion groups, advisory groups, toll-free call-in numbers, and surveys. Let the parties that have a stake in the issue be heard. Collaborate with volunteers, community groups, and religious leaders. Even your community's youth are an important audience so make sure to listen to their leaders. These groups can offer a greater understanding of how their members may react in certain crises and emergencies. Having contacts with them will be helpful later if you need to leverage their communication networks.

Finally, be aware of the broader social, cultural, economic, or political considerations that may influence communication with your audience. Identify with your audience and try to put yourself in their place.

THE GOAL

During crises and emergencies, people will be principally concerned about their health and physical safety, their access to food and essential services, and their ability

to go to work and have enough money. The public's concerns should always be addressed when you develop your ***communications goals*** and ***key messages***. During a crisis you may have several goals, such as making sure that the community has enough food, water, and medical care. You will also have communication goals. One communications goal during a crisis might be to prevent public panic when there is high mortality. Within the communication goal you may create several key or important messages, such as repeating that people who are sick should stay at home and not go to work or school.

As a municipal leader facing a crisis, your most important communications goals will be to do the following:

- **Share important information.** Inform people of the problem and the specific dangers that your community is facing.
- **Provide reassurance and say what has been done.** Provide concrete facts and reassure the public that authorities are doing everything possible to collect reliable information and share it as soon as it becomes available. Make sure you coordinate local communication with the national and regional authorities to ensure your information is accurate and you are not providing misleading, confusing, or outdated messages.
- **Tell people what they can do.** Provide guidance on actions residents should take to respond to specific challenges.
- **Answer questions.** Address your community's concerns with concrete answers and, if applicable, specific actions they can take.
- **Be empathetic.** Show that you care about the situation and understand what is going on. Empathy is the ability to identify with and understand somebody else's feelings or difficulties. People want to hear how you feel before before they hear what you know. Acknowledge and respond to (in words, gestures, and actions) the emotions people express—such as anxiety, fear, anger, and helplessness.
- **Show sympathy when appropriate.** Sympathy is the feeling or expression of pity or sorrow for the pain or distress of somebody else. You can show sympathy for those who are ill or for the families of those that have died.
- **Be prepared ahead of time.** Knowing in advance how you will focus your communications efforts will help you stay on track with your most critical goals. Knowing your audience—details about who they are, what they care about most, and why—and having clear communications goals, will help you shape effective key messages.

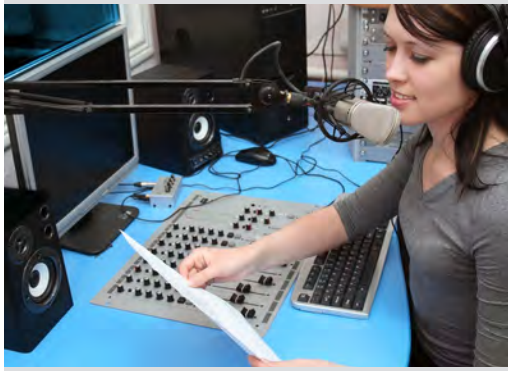
(For more information on specific topics you may want to be prepared to discuss, see Tool 4, *Non-Pharmaceutical Interventions [NPIs]: Actions to Limit the Spread of the Pandemic in Your Municipality*; Tool 7, *Food Security in a Pandemic*; and Tool 10, *Household Food Security Preparedness*.)

KEY MESSAGES

Communicating clear and consistent messages that address your audience's concerns is very important to effective communications. During crises and emergencies that demand a rapid response to unexpected and uncertain situations, this can be easier said than done. But it is critical—many times what makes people panic isn't the bad news, but the conflicting messages from those in authority.

SAMPLE COMMUNICATIONS GOALS FOR CRISES AND EMERGENCIES RECOMMENDED BY THE WORLD HEALTH ORGANIZATION

- Maintain, increase, or restore trust.
- Inform and educate governmental authorities, municipal officials, the public, and the media regarding:
  - details of the outbreak
  - outbreak prevention measures (including personal protection measures)
  - the surveillance plan for your municipality or agency
  - the response plan for your municipality or agency
  - disease control methods.
- Increase awareness of the disease and its transmission, prevention, and diagnosis among healthcare providers, including general and hospital practitioners.
- Increase awareness among healthcare providers of the use of control measures.
- Communicate disease control information and recommendations to governmental authorities, municipal officials, the public, and the media in a timely and efficient manner.
- Collaborate and cooperate with key partners and nongovernmental organizations to review and disseminate communications materials.



AN EXAMPLE OF A KEY MESSAGE TAILORED TO A SPECIFIC COMMUNICATIONS GOAL MIGHT BE:

Communications Goal: Let citizens know how they should respond during the influenza pandemic.

Key Message: "You can help reduce the spread of influenza to others by taking these precautions: Wash your hands frequently. Cover your sneeze and cough. If you are ill, wear a mask in the presence of others. Avoid public gatherings."

Your first step toward ensuring that you are not providing conflicting messages is to *make sure all communication goes through your designated communications coordinator*. (For more information on the designation and role of a communications coordinator, see Tool 13, *Communications Plan Implementation for a Severe Pandemic*.) The communications coordinator will ensure that your municipal chain of command is followed and that the appropriate information is communicated to the population in a timely and consistent fashion.

In a crisis, you must develop and deliver key messages that help you meet your communications goals. Key messages articulate information that is of the highest importance and convey what is urgent to know or do at a given time. As the crisis changes, your key messages may also change. You will develop your key messages in response to the different stages of the emergency and in response to how the crisis affects the behaviors and perceptions of the audience. Plan to develop key messages that communicate what the public needs to do but that also address the needs of the audience for facts or reassurance. Help your public move forward through the crisis. (See Handout 2.)

UNDERSTANDING TARGET AUDIENCES AND THEIR CONCERNS
What they will want to know first

Public	News Media	Other Stakeholders (Businesses, NGOs, Religious Organizations)
Am I safe? Is my family safe? What have you found that may affect me? What can I do to protect myself and my family? Who/what caused this? Can you fix it?	What happened? Has it been contained? Who is in charge? Are people in need being helped? What can we expect? What should we do?	How will my group be affected? What resources will we have to mobilize to ensure the safety of our members? What is our role in the overall response and how will it impact our group?

It is a good idea to seek input from advisors representing different audiences with whom you need to communicate. They can keep you up to date on the changing concerns, information needs, and priorities of their groups. Coordinate and collaborate with other credible sources who will help you get your key messages across, perhaps with greater effectiveness. For example, consider involving representatives from groups such as youth, religious, labor, business, and indigenous communities.

GUIDELINES FOR PREPARING CLEAR AND CONCISE MESSAGES FOR CRISES AND EMERGENCIES

- Identify what you most want the target audience to know and to do.
- Identify what you need to do to correct misperceptions or erroneous information (for more information on responding to rumors and misinformation, see Tool 14, *News Media Communication*).
- Prepare three key messages that communicate your principal ***talking points***. Leaders and spokespersons should have talking points, a list of subjects they want to cover, whenever they speak to the public.
  - Remember that during crises anxiety or fear can make it harder for people to process (hear and interpret) information than during normal situations.

- The amount of information delivered should be succinct and limited to the most important information.
- Crisis communication experts recommend that you limit your messages to the three most important to ensure the audience remembers them.

- Prepare supporting points for each key message.
- Develop support materials for each message (e.g., visuals, examples, quotes, personal stories, analogies, or instructions for obtaining additional information; a sample of a flyer highlighting one set of key messages is included as Handout 5).
- Keep messages simple and short.
- Document in writing recommended messages and support materials.
- Practice delivering your key messages.

One of the most powerful tools you can use to help you organize and focus your key messages is a ***message map***. A message map is an outline to keep in your head or on a notepad that has supporting points or information for each key message. A template for creating your own is included at the end of this tool (see Handout 3). A message map should be prepared for any crisis or emergency. Involve key members of your local municipal team, communications professionals, and community leaders in the development and testing of messages.

During a time of crisis, especially when fear and rumors influence people's understanding and trust, it is important to stay on message. In other words, communicators must remain constantly focused on their key messages and state them as clearly as possible at the outset of a communication (for example, at the beginning of an interview or press conference). Then they stay on message by returning to their points as often as possible.

You can plan opportunities to return to your key messages before you participate in an interview or press conference. You can decide, ahead of time, exactly how you will integrate your key messages at the beginning, middle, and end of the interview or conference.

Below is an example of staying on message (using the key message provided earlier) when telling the people of your municipality how they can respond during a pandemic.

Ways to "Stay on Message"	
At the beginning of your interview say	"*I want to begin by saying that*… there are things people can do to keep the disease from spreading. They can wash their hands frequently; cover their sneeze or cough; if they are sick, wear a mask around others; and avoid public gatherings."
Sometime later say	"*As I said a moment ago*… there are precautions people should take to stay healthy. They should wash their hands frequently; cover their sneeze or cough; if they are sick, wear a mask around others; and avoid public gatherings."
When you answer a question say	"*That's an important question, but before I answer it I want to stress again that*… people can take a number of specific steps to help in this time of crisis. They can wash their hands frequently; cover their sneeze or cough; if they are sick, wear a mask around others; and avoid public gatherings."
At the end say	"*Before I close, I want to remind everyone*… to take the recommended precautions. Wash your hands frequently. Cover your sneeze and cough. If you are sick, wear a mask around others. And remember to avoid public gatherings where the disease can spread easily."

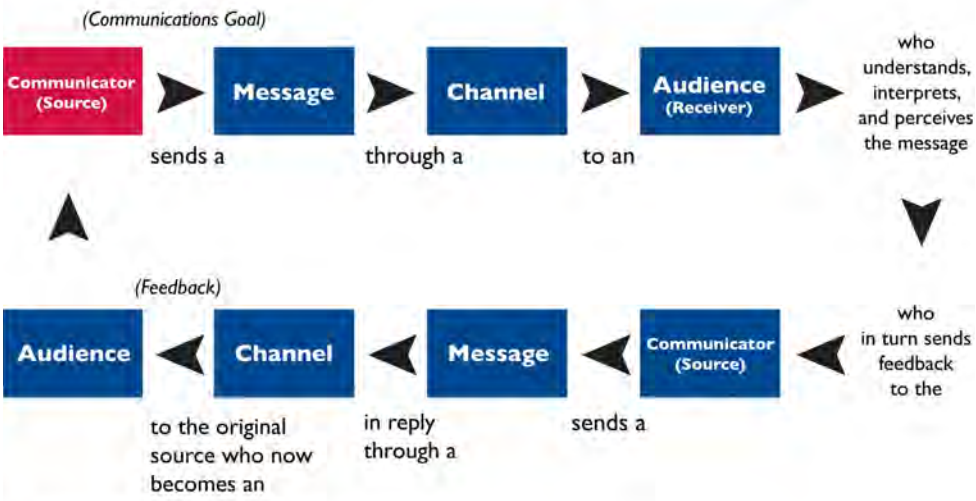
Staying on Message

- Raise your points often enough that your audience leaves with a clear understanding of the message you wanted them to hear.
- Take opportunities to begin or end statements with a reiteration of your message.
- Understand that repeating a single point too many times may create the appearance that you are trying too hard to convince people of something that is not true, so don't repeat your message word-for-word every time you answer a question.

THE CHANNEL

Communications are delivered in many ways. Professional communicators call the methods of delivering a message the ***channels*** over which the message is sent. Messages may go out over a variety of channels used to convey information, including anything from loud speakers, amateur shortwave radio, billboards, posters and flyers, newspapers, radio, and television to cell phones or the Internet. To become an effective communicator, you should determine how to use the best method to reach each target audience. This includes understanding and selecting the most appropriate communication channels to enhance your message's impact by reaching your audience at the right time and the right place.

BASIC ELEMENTS OF COMMUNICATIONS



Adapted from: P. Oakley and C. Garforth, *Guide to extension training* (Rome, Italy: Food and Agriculture Organization, 1985)

Channel selection during normal situations is key to successful delivery; during a crisis this choice becomes even more critical. You may have already found that during a crisis the normal lines of communication can fail just when you need them most. Yet success often requires you to reach your audience quickly—whether that audience is just a handful of people or tens of thousands—particularly during a crisis. Identifying effective communication channels to reach groups such as youth, rural communities, and people who are displaced can be a daunting but critical task.

Before you face a crisis, consider mapping out the communication channels in your community. This map will help ensure you are aware of the right communication channels and options to address the informational needs of your audience. It can also help you determine whether there are any gaps in the existing communication network.

Use the steps in the box to the left and Handout 4 to create your own communication channel map.

COMMUNITY COMMUNICATIONS CHANNELS MAPPING

Step 1: Gather information

1. List all the communication channels and mass media in your community. Include channels and media that service your community even if they are not physically present in your locality.
2. List all the different communication needs that your community has and might have in a future crisis. For example, your community might need a way to make radio announcements in an emergency. Or you may need to keep a supply of paper on hand to make flyers.
3. Once the lists are complete, mark the channels or media that are used for each communication need, corresponding to each of your audiences.
4. Make notes on the effectiveness of the communication channel for reaching the audience for that particular need.

Step 2: Evaluate

1. Are the channels and communication needs matched as well as they could be?
2. Are there any gaps in the communication?
3. What do you need to change/ develop in the future?

WHY IS COMMUNICATION DURING A CRISIS OR EMERGENCY ESSENTIAL?

Communities expect to hear from their leaders in times of crisis. They want to know if they are safe and what is being done to protect them. Sharing information in a timely and accurate manner can help dispel rumors and misunderstandings that

might otherwise result in fear, panic, suspicion, or indifference. When the correct information is disseminated quickly, it can reduce death and suffering.

Communicating in an opportune, transparent, and credible manner during a crisis situation is a key leadership skill. Keep in mind that communicating during crises and emergencies is different from communicating during normal conditions. This makes crisis communication an important part of your overall leadership approach to addressing an influenza pandemic.

During a crisis, unpredictable and unusual events, or unstable and dangerous situations may bring about abrupt change. The challenges that you and your community may face during a severe influenza pandemic are unimaginable. You may have dealt with past crisis situations and observed that each one evolves in phases and that the communication required must evolve in tandem. Understanding the pattern of a crisis can help communicators anticipate the information needs of the public, stakeholders, and the media.

Below are a set of communication tasks corresponding to the stages of crisis designed to assist you in your preparation and implementation.

COMMUNICATION TASKS

Stage 1: Pre-Crisis

- Identify the organizational structure responsible for communication activities, such as a ***communications command center***, communication coordinator, and ***communications support team***.
- Identify roles and responsibilities across government units, the emergency response team, the communication coordinator, and the communications support team.
- Identify communications goals.
- Identify target audiences to communicate with, and evaluate their information needs and communication preferences.
- Identify communication resources and channels you can use to reach and influence your target audiences.
- Ensure that the communication coordinator is included in the emergency response team.
- Prepare a communications plan.
- Plan roles for the news media, such as keeping the population informed about important government and community actions.
- Prepare lists of contacts for the media, the emergency response team, and the municipality's emergency services.
- Hold meetings with key media personnel to discuss collaborative communications plans and needs.
- Prepare basic ***press releases*** that can be quickly adapted during a crisis. (At the end of this tool you will find a press release template that you can use for this purpose.)
- Establish standard operating procedures for communication activities, including the flow of information between the communications support team, municipal government agencies, technical experts, and authorized decisionmakers.
- Implement simulation exercises for the first steps of your communications plan.
- Conduct training as needed.

Stage 2: At the Beginning of the Crisis

- Inform your target audiences about the crisis, and explain the government's response.
- Offer empathy to people directly affected by the crisis.
- Explain risks associated with the pandemic illness.
- Establish the credibility of leaders, government, and partners.
- Recommend important practices for businesses, households, and schools.
- Strengthen alliances with sectors of your community.
- Conduct media monitoring.

Stage 3: During the Crisis

- Identify your municipality's communication needs.
- Explain ongoing risks as well as new risks.
- Inform the public about and explain government decisions.
- Provide updates on the situation as needed.
- Obtain support for government actions among stakeholders and communities through meetings, open communication lines, and other tactics.
- Gather feedback on communication actions; adjust messages and communications as needed.
- Inform the public about the municipality's needs and the ways in which the public can help.
- Recommend important practices for specific individuals or groups.

Stage 4: Recovering from the Crisis

- Explain to the public that the crisis has ended.
- Explain government decisions.
- Recommend important actions to get life and commerce back to normal.
- Convene representatives of all sectors to assess results, propose solutions, and determine next steps.

STAGE 5: Post-Crisis

- Evaluate the effectiveness of communication during the crisis.
- Identify lessons learned.
- Refine communications plans for future use.

(For more information that will help you to complete these tasks, see Tool 13, *Communications Plan Implementation for a Severe Pandemic*; Tool 17, *Volunteer Coordination*; and Tool 15, *Disaster Management in a Pandemic*.)

IDENTIFYING SPECIFIC TARGET AUDIENCES

Use this worksheet when you write key messages to help you consider your target audiences.

Specific target audience	Key points, facts, characteristics to consider about this audience
Individuals immediately impacted by the pandemic illness	
Families of anyone immediately impacted by the pandemic illness	
The news media	
Civic leaders	
Business leaders	
Municipal government employees	
Neighboring municipalities, towns, or countries	
Individuals with special needs and their families	
Vulnerable populations	
Healthcare providers	
Indigenous communities	
Visitors, tourists	
Others	

DEVELOPING KEY MESSAGES

Use the key questions/concerns included below to help you prepare key messages.

Key Question/Concern	Key points/facts to include in your messages
What is the current situation? What measures is the local government taking to reduce the risk?	
What specific information do you have about the current stage of the pandemic? What details do you have about how it is affecting your municipality?	
What information do you still need to know? How are you going to find out?	
What are the symptoms of the influenza pandemic? How does the illness spread?	
Who is at risk? Which populations are most vulnerable to this risk?	
How can people protect themselves?	
What precautions should individuals and communities take? If exposed, when should people contact their health providers?	
Other key questions/concerns:	

MESSAGE MAP WORKSHEET FOR WRITING KEY MESSAGES WITH SUPPORTING DETAILS

When planning your communications to the public, use this message map template to focus and organize messages before an emergency takes place.

Message Map Template		
Specific Audience:_____ Specific Question or Concern:_____		
Key Message 1	Key Message 2	Key Message 3
Supporting Information 1-A	Supporting Information 2-A	Supporting Information 3-A
Supporting Information 1-B	Supporting Information 2-B	Supporting Information 3-B
Supporting Information 1-C	Supporting Information 2-C	Supporting Information 3-C

WORKSHEET FOR DEVELOPING A COMMUNICATIONS CHANNEL MAP

When identifying your communication channels, use this map template to determine and coordinate delivery of messages.

List all the communication channels and mass media in your community. Include channels and media servicing your community even if they are not physically located in your locality.

List all the different communication needs that your community has and may have in the foreseeable future.

Once the lists are complete, mark the channel or media that is used for each communication need corresponding to each one of your audiences.

Make notes on the effectiveness of the communication channel for the need (examples are provided in some of the spaces below).

Communication Channels	Communication Needs				
	Urgent messages to central government	Urgent messages to the municipal leadership team	Messages to essential services workers	Messages to schools	Notes
Fax to offices	Need updated fax numbers for emergencies				
Cascade (word of mouth)		Messages may be miscommunicated or become rumors			Need a clear message that is repeated or updated
Internet			The Internet does not always work		
Radio				Parents can listen each morning to find out if schools are closed	Need to coordinate with school officials
Television			Social distancing in the workplace can be shown in a video		
Newspapers					Good for explaining hygiene messages

SAMPLE KEY MESSAGES FLYER

THE FOUR INFLUENZA FIGHTERS

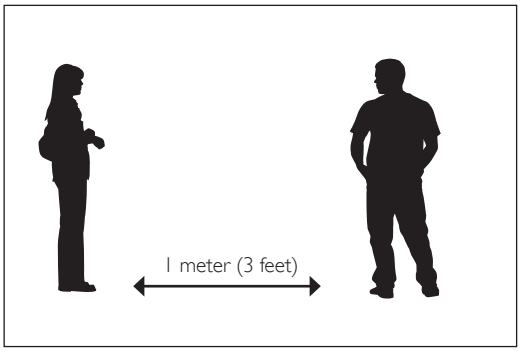
COVER COUGHS AND SNEEZES

Cover coughs and sneezes with your arm, a tissue, cloth, or mask. Throw out used tissues and sanitize surfaces people have touched, coughed, or sneezed on.

WASH YOUR HANDS

Wash your hands frequently with soap and water for 15–20 seconds, rinse, and dry on a clean towel. Or use an alcohol-based hand gel.

KEEP YOUR DISTANCE



During an influenza pandemic, stand at least one meter away from others and do not shake hands. Limit travel and avoid crowds. Work from home if possible.

SEPARATE SICK PEOPLE

Stay home if you are sick. Keep sick children home from school. If you have any influenza symptoms, stay home for at least 48 hours, or until everyone in the household is well.

SOURCES

Chess, C. 1989. Encouraging effective risk communication in government: Suggestions for agency management. In *Effective Risk Communication*, ed. V.T. Covello, D.B. McCallum, and M.T. Pavlova. New York: Plenum Press.

Chess, C., B.J. Hance, and P.M. Sandman. 1988. *Improving dialogue with communities: A short guide to government risk communication*. Trenton, NJ: New Jersey Department of Environmental Protection.

Covello, V., and F. Allen. 1988. S*even cardinal rules of risk communication*. Washington, DC: U.S. Environmental Protection Agency, Office of Policy Analysis.

Covello, V.T., D.B. McCallum, and M.T. Pavlova (editors). 1989. *Effective risk communication: The role and responsibility of government and non-government organizations*. New York: Plenum Press.

Fisher, A., and Y.C. Chen. 1996. Customer perceptions of agency risk communication. *Risk Analysis* 16(2): 177–84.

HHS (U.S. Department of Health and Human Services), Substance Abuse and Mental Health Services Administration. 2002. *Communicating in a crisis: Risk communication guidelines for public officials*. Rockville, MD: HHS.

Kappel, D.J. n.d. *Crisis communication for local governments: What works, what doesn't*. Audio Conference (60 minutes). Summary and program highlights can be viewed at www.governmenteducator.com/8N/0/2/p2954Cc/p1VWSJTFi/p0e (accessed April 30, 2009).

Sanchez, M. 2009. Taller sobre influenza aviar y la comunicación de riesgo: El rol del periodista Managua, Nicaragua. 9 de septiembre de 2009. Links Media. PowerPoint Presentation.

WHO (World Health Organization). 2005. *Effective media communication during public health emergencies: A WHO handbook*. Geneva: WHO.

WHO. 2005. 77 Most frequently asked questions by journalists in an emergency. In *Effective media communication during public health emergencies: A WHO Field Guide*, 8-9. Geneva: WHO.

COMMUNICATIONS PLAN IMPLEMENTATION FOR A SEVERE PANDEMIC

PREPAREDNESS

RESPONSE

This tool will help you to:

- Plan a communications response as part of your overall municipal ***response*** to the pandemic
- Designate a communications coordinator who will help you spearhead this plan and organize a strategic ***communications support team***

Who will implement this tool:

- The mayor
- A member of the ***municipal leadership team*** or local emergency response team
- A designated ***spokesperson***, such as a member of a communications support team
- A ***public information officer*** or communications officer

During emergencies such as disease outbreaks, local government authorities are better able to ensure the public's well-being if they have prepared ahead of time. One of the most important ***preparedness*** measures a municipality can take is assembling an emergency response team—one that includes a communications expert—and a plan for getting critical information out to the public once the emergency occurs.

> *"Disease outbreaks are inevitable, and often unpredictable, events. The environment surrounding an outbreak is unique in all of public health. Outbreaks are frequently marked by uncertainty, confusion, and a sense of urgency. Communication, generally through the media, is another feature of the outbreak environment. Unfortunately, examples abound of communication failure which have delayed outbreak control, undermined public trust and compliance, and unnecessarily prolonged economic, social, and political turmoil. The World Health Organization (WHO) believes it is now time to acknowledge that communication expertise has become as essential to outbreak control as epidemiological training and laboratory analysis."*
>
> —WHO Outbreak Communication Guidelines

Where are your country's existing disaster plans and protocols?

Most countries have national level pandemic plans in place, while very few have municipal level plans. *It is very important that municipal plans reflect national level planning and that all municipal response activities are consistent with the national strategic objectives, laws, and policies.* If you do not already have a copy of your country's National Pandemic Response Plan, contact your Ministry of Health or look for it on their website. Information is also available from the Pan American Health Organization at www.paho.org. Your country may also have an Emergency Communication Plan that you should follow.

National, district, and municipal level plans are likely to exist for general disaster response. Municipal level disaster committees and plans are a foundation on which you can build your pandemic response plan, and a disaster committee may well become the multisector municipal leadership team that you need for your pandemic response.

What is the legal framework of your country and municipality?

Any response you lead to ensure the health and safety of your community must be congruent with your country's and municipality's existing laws and regulations. Laws and regulations have been enacted to prevent, protect, and control against diseases that threaten the well-being of the population. The existing laws, policies, programs, and appropriated funds must be considered as you plan and implement a municipal level response during a severe influenza pandemic. Having a keen understanding

of this legal framework is pivotal for ensuring an efficient response during a crisis. Municipal preparedness includes identifying and addressing any gaps in the legal framework for response.

SAMPLE PANDEMIC COMMUNICATIONS RESPONSE PLAN

Once your emergency response team has been convened because the influenza pandemic has begun, you will need to take the following steps, the details of which are provided in this tool.

STEP 1: Designate a communications coordinator

STEP 2: Designate a *spokesperson*

STEP 3: Identify communication needs

A. Identify ***target audiences***

B. Identify ***communications goals***

C. Determine ***key messages***

D. Determine targeted messages per audience

E. Identify materials needed

STEP 4: Create a *communications plan*

A. Determine information dissemination channels

B. Identify media and communications resources

C. Prepare ***first announcement***

D. Establish update procedures

E. Prepare ***talking points***

STEP 5: Monitor information flow and public response

STEP 1: DESIGNATE A COMMUNICATIONS COORDINATOR

The communications coordinator will play a key role in helping you convey to the public, often through different media outlets, the information they will need to protect themselves and their families, to have access to ***essential services***, and to help keep the pandemic from spreading.

Your communications coordinator is a vital member of your emergency response team and reports directly to you, your municipal leadership team, or the highest authority in your municipality on a daily basis. He or she ensures that all messages to the public are consistent and delivered effectively, and provides leadership to your communications support team.

Your communications coordinator will also be responsible for helping to ensure that your municipal chain of command is followed. Therefore, he or she must be an integral part of every step of your municipality's response to an influenza pandemic—whether that response involves the health ***sector***, ***food security and livelihoods***, or logistics and mobilization of resources. During a pandemic, *every* issue is a communications issue.

The communications coordinator should be:

- *Confident* and able to follow your municipality's chain of command, able to manage the flow of information, and comfortable working with the media;
- *An excellent communicator* who is comfortable working with all of the sectors in your municipality and able to provide accurate and timely briefings; and
- *Organized* and able to provide leadership and guidance to your communications support team.

If your municipality has one, a ***public information officer*** is a good candidate for this important role in your pandemic response.

For more detailed information, turn to the handouts "Roles and Responsibilities of the Communications Coordinator" and "Roles and Responsibilities of the Communications Support Team" included at the end of this tool.

STEP 2: DESIGNATE A SPOKESPERSON

An effective and trustworthy communicator, such as your municipality's public information officer or your emergency response team's communications coordinator, can step in to serve in this key role. The spokesperson will convey to the public and the media the most important messages at every step of your pandemic response.

Keep in mind that the public and the media prefer a face and a voice with which they are familiar, someone who represents the values and unique characteristics of your community. The spokesperson will give a human face to your local response.

In sum, a lead spokesperson will communicate the fact that your municipality is responding to the crisis, but will not over-reassure the public. He or she will expect criticism, follow up on issues, tell the truth, and speak with compassion and empathy. The spokesperson will work to develop cooperative relationships with media representatives so they can work as a team to address ***public information*** needs and concerns. This individual will understand the purpose behind the key messages or recommendations made to the public, and convey confidence, credibility, and trust.

For more information on choosing a well-prepared spokesperson, see Tool 14, *News Media Communication*.

STEP 3: IDENTIFY COMMUNICATION NEEDS

Once you have identified your communications coordinator, assembled your communications support team, and designated a lead spokesperson, your next task will be to assess your municipality's communication needs so that these inform your pandemic response.

A. Identify Target Audiences

First, identify your target audiences. The characteristics of each target audience should help shape the information you are trying to get across. For more information on identifying the key characteristics and facts about your target audiences turn to Tool 12, *Fundamentals of Communication During Crises and Emergencies* and the worksheet included at the end of that tool.

Examples of target audiences you may need to communicate different information to are:

- Healthcare providers
- School teachers and parents
- Groups of executives or business leaders
- Government workers
- Farmers
- Store owners
- Laborers

B. Identify Communications Goals

Clear communications goals form the foundation of an effective communications response during a pandemic. Goals should be simple, straightforward, and realistic. Is your municipality's goal, for example, to inform the public of the problem and the specific dangers? To provide guidance to the public on appropriate hygienic measures? To keep the public calm?

Establishing your communications goals—and the key messages you will need to support these—as part of your emergency preparedness efforts will ensure an effective communications response during the crisis. Whatever your goals, make sure your response is:

- Timely
- Accurate
- Honest
- Credible
- Consistent
- Appropriate
- Regular
- Relevant

To learn more about communications goals, see Tool 12, *Fundamentals of Communication During Crises and Emergencies*.

C. Determine Key Messages

Effective communication with your target audience and the media depends on the development of clear and concise key messages that address everyone's essential questions and concerns. Key messages are points that you want your audience to remember after your communication is complete.

One of the most powerful tools you can use to develop and organize clear and concise messages is a message map. (Turn to Tool 12, *Fundamentals of Communication During Crises and Emergencies* for more information about developing key messages and message maps, including worksheets you can use to develop these.)

Included at the end of this tool is a sample message map for use in an influenza pandemic. This map has been adapted from the U.S. Department of Health and Human Services' *Pandemic Influenza Pre-Event Message Maps*, a publication containing a full series of model message maps that you can adapt for use in your municipality.

D. Determine Targeted Messages Per Audience

Targeted messages are those aimed at a specific audience. Identifying the key facts about the people you are trying to reach will help you shape messages quickly and effectively. (You can turn to Tool 12, *Fundamentals of Communication During Crises and Emergencies* for more information about target audiences and worksheets you can use to help you determine their particular characteristics and concerns.)

E. Identify Materials Needed

Each of your municipality's communication needs during a pandemic response will call for different types of materials. Below is a sampling of some of these. (Samples of a ***press release***, ***media advisory***, and ***op-ed*** are provided in Tool 14, *News Media Communication*.)

- Press releases
- Fact sheets
- Copies of reports or documents that would be useful background information for reporters covering the event
- Visual materials (such as maps, charts, timelines, diagrams, drawings, and photographs)
- Other materials—such as biographies of speakers and/or subject matter experts, flyers, or broadsides—as appropriate (an example of a public information flyer is provided at the end of this tool)

Determining where you will warehouse your municipality's communication materials will also be critical in a quick and efficient response to the pandemic.

STEP 4: CREATE A COMMUNICATIONS PLAN

When a public health emergency is at hand, timely, accurate, clear, concise, and credible messages can have a great impact on how the public perceives and responds to the emergency.

A communications plan helps your municipality respond in a focused and strategic manner. Typically, a communications plan includes the goals listed below.

- Provide quick access to timely, accurate, clear, consistent, and credible information to the general public, the media, healthcare providers, and other interested individuals or groups.
- Quickly address rumors, misperceptions, and inaccurate information.
- Coordinate communications efforts across all sectors of a municipality.
- Respond to information requests from the media, the public, staff, and other interested or affected individuals or groups.
- Eliminate or reduce public fear or inappropriate behavior.
- Direct public action.

A. Determine Information Dissemination Channels

You can disseminate information to educate the public and direct public action in numerous ways. The most common method of dissemination is via mass media. However, the success of your communications will depend on the unique characteristics of your municipality and the methods of dissemination that work best there.

WHEN MAKING A DECISION ABOUT THE RELEASE OF INFORMATION, CONSIDER THE FOLLOWING:

What to release

When to release it

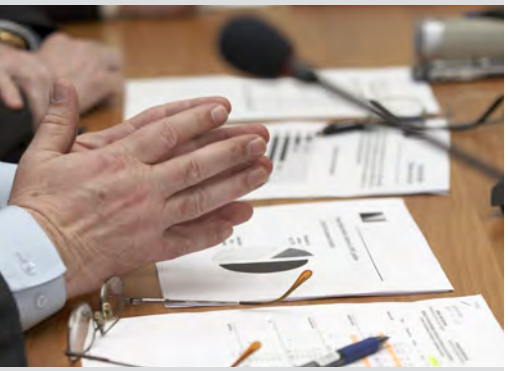
How to release it

Whom to release it to

Why release it

YOU CAN DISSEMINATE INFORMATION VIA:

- Flyers, brochures, and circulars
- Mobile public address systems
- Billboards
- Telephone ***hotlines*** and toll-free numbers
- Press releases and/or media advisories
- News briefings and ***news conferences*** (in person and by telephone)
- Interviews on television and radio shows, including news programs
- Interviews or paid advertisements in your local newspaper
- Email, fax, or Websites (including your municipality's public site as well as dedicated sites for specific users or events)
- Mass ***cellular text messages***



The overall aim of an effective strategy is to use whatever vehicle allows you to get vital information to the public quickly, accurately, and effectively. (The only exception to remember, in the very specific case of an influenza pandemic, is avoiding congregations of people, which allow the disease to spread more quickly.)

B. Identify Media and Communications Resources

Before the crisis, take the time to identify media resources in your municipality that can support your communications activities.

Media and public relations companies can, for example, provide news media production services to develop films, videos, ***radio capsules***, and so on. And marketing and advertising agencies that buy media can help you secure public advisories like billboards.

Consider enlisting the help of such community resources as:

- University and college schools of communication
- Information technology schools
- Art and design schools
- Social work schools
- Printing and art design shops
- Radio and TV stations
- Newspapers
- Telecommunications companies
- Event promoters

C. Prepare First Announcement

The public will be listening for factual information, and many of the people in your municipality will be expecting to hear a recommendation for action, as soon as news of a potential danger breaks.

When making your first announcement to the public:

- Make sure that your facts are accurate and repeat them consistently.
- Avoid vague details early on.
- Ensure that all credible sources share the same facts.
- Ensure that all spokespersons speak with one voice.
- Be well prepared.

Your first official message to the public should contain the following six elements in the order below.

1. **An expression of empathy and concern for the welfare of community members.**
2. **Confirmed facts and action steps** (who, what, where, when, why, and how). However, it is not necessary for you to know all of the facts and action steps in order to go forward with a statement.
3. **What you *don't* know about the situation.**
4. **What the process is.** After acknowledging that some questions cannot be answered, explain the first steps being taken to find answers. What help can people expect next? (The first statement may simply be: "We've activated the ***Emergency Operations Center.***")

5. **Statement of commitment.** Express that you are there for the long haul. You'll be back to talk to them in an hour—or within a specified timeframe. (Be careful not to promise what is outside of your control.)
6. **Where people can get more information.** Provide a hotline number or a Website. Again, tell them when you will be back in touch with them.

Finally, remember that consistent messages are vital. Inconsistent messages will increase anxiety and quickly call into question the credibility of experts.

D. Establish Update Procedures

You will need to establish procedures for how your communications support team will provide updated information to the media and the public (for more information, see Tool 14, *News Media Communication*). Consider the examples included at right for providing updates. Don't forget to include those methods for providing updates that may be unique to your municipality.

E. Prepare Talking Points

Use the key messages developed with your message map to develop specific talking points and supporting information.

STEP 5: MONITOR THE FLOW OF INFORMATION AND PUBLIC RESPONSE

As you shape your messages, be mindful of how the public perceives risk and responds when you are communicating during a crisis. Municipal-level authorities who listen to and address the concerns of the public will be more effective in getting their messages across.

Finally, consider whether you will need to expand your communications support team to ensure continuous coverage should the crisis lengthen and intensify.

General recommendations for monitoring information flow:

- Watch, read, and listen to the news daily.
- Analyze how the news is presented.
- Critique the communication skills of others; learn from their successes as well as from their mistakes.

WAYS TO PROVIDE UPDATES TO THE PUBLIC

1. Send updated announcements via your existing mass communications channels (such as electronic and print news media, as well as municipal or regional government Websites) each time you receive more information. Leave the original announcement at the bottom of the article and add new information above it, dating and/or time-stamping your updates as you go.
2. Send updates via other existing channels (public announcements through loudspeakers, local bulletins, and/or cellular text messages).
3. Keep these channels updated with the most current information. Include what has been done already.

EMERGENCY RESPONSE TEAM CONTACT LIST

Once your municipality's emergency response team has been assembled, fill out and keep handy a contact list for all team members, such as the example below.

Date last updated _____

Team Member	Primary	Backup
Mayor (or Municipal Leader)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Emergency Response Chairperson	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Public Safety and Security Sector Coordinator (Includes Police, Fire, Emergency Medical Services)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Public Health and Medical Services Sector Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Public Works Sector Coordinator (Includes Water, Power, Sanitation, Road Repair)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Communications and External Affairs Sector Lead Coordinator (Includes Authorized Media Spokesperson)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Logistics and Transportation Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Food Sector Coordinator (Food Security)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:

Team Member	Primary	Backup
Business Sector Liaison (Trade, Commerce, Banking, Tourism, Labor)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Legal Advisor	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Volunteer Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Recovery Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Municipal Finance Sector Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Telecommunications and IT Services	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Others as Available and Needed, Such as Social Services, Family Welfare, Faith/ Religion Counselor, School Coordinator, Community Liaison, NGO Representatives	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:

ROLES AND RESPONSIBILITIES OF THE COMMUNICATIONS COORDINATOR

Included below are the specific roles and responsibilities of your communications coordinator.

COMMAND AND CONTROL

- Assembles and provides guidance to the communications support team
- Serves as the point person for all communication during the pandemic crisis
- Coordinates across the sectors in your municipality to ensure that messages are consistent
- Manages the release of information to the public and the media
- Knows incident-specific policy, science, and situation
- Provides technical support to spokesperson(s)
- Reports on a daily basis directly to you, the municipal leadership team, or the highest authority in your municipality
- Serves as a liaison to government agencies in the production of press releases and the scheduling of news conferences and meetings
- Determines the operational hours and days, and reassesses these throughout the pandemic response
- Ensures that communications resources are available (including human, technical, and mechanical supplies)

DIRECT MEDIA

- Develops all internal and external crisis-related communications
- Manages inquiries and requests from the media and coordinates logistics for interviews and conferences with media representatives
- Oversees media monitoring systems and reports
- Reviews and approves materials for release to the media and the public

DIRECT PUBLIC INFORMATION

- Develops all internal and external crisis-related communications
- Oversees public information monitoring systems and reports
- Reviews and approves materials for release to the media and the public

COORDINATE COMMUNICATIONS ACROSS SECTORS

- Organizes and facilitates regular meetings with all sectors to receive input about public response and communication messages
- Arranges official briefings across all sectors of the municipality

DEVELOP PUBLIC HEALTH CONTENT AND MATERIAL

- Works with subject matter experts to create situation-specific fact sheets, Q&As, and updates
- Compiles information on possible public health emergency topics for release when needed
- Tests messages and materials for cultural and language requirements of special populations
- Receives input from other communications support team members regarding content and message needs
- Uses analysis from media, public, and municipal sector monitoring systems and reports in order to adapt messages
- Identifies additional content requirements and materials development needs

ROLES AND RESPONSIBILITIES OF THE COMMUNICATIONS SUPPORT TEAM

The specific roles and responsibilities of your communications support team follow.

Handout 4 is a worksheet that you can use to track the specific staff or volunteers who will be in charge of the communications tasks for the team.

COMMAND AND CONTROL

- Provides updates to the communications coordinator
- Develops and maintains *media contact list* and *call logs*

DIRECT MEDIA

- Produces and distributes media advisories, press releases, and other materials for approval by the communications coordinator, mayor, or municipal leadership team
- Monitors local and national news media, as well as the public response
- Ensures that crisis communication principles to build trust and credibility are incorporated into all public messages delivered through the media

DIRECT PUBLIC INFORMATION

- Manages and responds to inquiries and requests from the public via emergency hotline and email
- Organizes and manages a pandemic response Website for the municipality and maintains links to other related Websites

TASKS AND CONTACTS FOR THE COMMUNICATIONS SUPPORT TEAM

Role	Tasks
Communications Coordinator Name: _____ Phone 1: _____ Phone 2: _____ Email: _____	• All communications command and control tasks • Directs all media • Directs all public information • Coordinates communications across sectors • Develops public health content and materials
Communications Support Team *Lead Member* Name: _____ Phone 1: _____ Phone 2: _____ Email: _____ *Back-Up Member* Name: _____ Phone 1: _____ Phone 2: _____ Email: _____	Command and Control • Provides updates to communications coordinator • Develops and maintains media contact list and call logs
Communications Support Team *Lead Member* Name: _____ Phone 1: _____ Phone 2: _____ Email: _____ *Back-Up Member* Name: _____ Phone 1: _____ Phone 2: _____ Email: _____	Direct Media • Produces and distributes media advisories, press releases, and other materials for approval by communications coordinator, mayor, or municipal leadership team • Monitors local and national news media, as well as public response • Ensures that crisis communication principles to build trust and credibility are incorporated into all public messages delivered through the media
Communications Support Team *Lead Member* Name: _____ Phone 1: _____ Phone 2: _____ Email: _____ *Back-Up Member* Name: _____ Phone 1: _____ Phone 2: _____ Email: _____	Direct Public Information • Manages and responds to inquiries and requests from the public via emergency hotline and email • Organizes and manages pandemic response Website for the municipality and maintains links to other related Websites

MODEL OF INFLUENZA PANDEMIC KEY MESSAGES WITH SUPPORTING INFORMATION

Message Map Template		
Specific Audience: *General Public* Specific Question or Concern: *How fast would an influenza pandemic spread?*		
Key Message 1	Key Message 2	Key Message 3
When an influenza pandemic begins, it is likely to spread very rapidly.	**Efforts to prepare for an influenza pandemic are continuing.**	**Public participation and cooperation will be important to response efforts.**
Supporting Information 1-A	Supporting Information 2-A	Supporting Information 3-A
Influenza is a contagious disease of the lungs.	Public officials are building on existing disease outbreak plans.	Severe influenza could produce changes in daily life, including limits on travel and public gatherings.
Supporting Information 1-B	Supporting Information 2-B	Supporting Information 3-B
Influenza usually spreads by infected people coughing and sneezing.	Researchers are working to produce additional vaccine more quickly.	Informed public participation and cooperation will help public health efforts.
Supporting Information 1-C	Supporting Information 2-C	Supporting Information 3-C
Most people will have little or no immunity to an influenza virus that spreads from person to person.	Countries are working together to improve detection and tracking of influenza viruses.	People should stay informed about the influenza pandemic and be prepared as they would for any emergency.

This map has been adapted from the U.S. Department of Health and Human Services' Pandemic Influenza Pre-Event Message Maps, *a publication you can turn to for a full series of model message maps that you can adapt for use in your municipality (see Sources on page 20).*

SAMPLE OF PUBLIC INFORMATION FLYER

Included below is an emergency planning matrix for the for public education sector created by the Council of Chief State School Officers.

Top Priorities: An Emergency Planning Matrix for Public Education

Priority	Pre-Event	Managing in an Event	Recovery
Food	• Determine appropriate funding sources with USDA • Send food stockpiles home on a rotating basis • Educate/organize custodial and food staff within school for procedures during pan-flu event • Coordinate alternate spaces for room and boarding	• Link opening capacity to food-provision capacity • Provide meals for children to take home for the next __ days they may not be in school.* • Use alternate providers (restaurants, hospital kitchens, community centers) • Stockpile care packets for families of teachers and staff to ensure the greatest number will come to work	• Publicize that food is being served at school • Have children bring their own utensils to reduce waste
Supplies	• Assess need for 1, 2, and 6 months for essential categories • Identify secure off- and on-site storage locations	• Monitor usage and determine when supply renewal is likely	• Stress need for "normal" operations as soon as possible for symbolic importance
Basic Health Care	• Increase frequency of compliance with basic vaccine requirements • Inventory supplies and ensure sufficient on hand for __ months* • Update list of children dependent on school for primary care and ensure the availability of school staff trained to deliver care	• Link opening capacity to provision of health-monitoring capacity • Assess whether school is the appropriate place for the specific special populations • Maintain sanitation with specially trained custodial staff	• Assess school staffing needs and redistribute faculty and staff • Bring special populations back in stages, expanding capacity in line with the extent of the recovery
Waste Disposal	• Plan for capacity to dispose/retain __ days of waste safely* • Raise awareness about the need for safe disposition and reduction of waste	• Link opening capacity to waste-disposal capacity	• Continue to encourage good stewardship of materials to ensure speedier recovery
Payment	• Develop policies for continuity of payments • Communicate what mechanism will be used to keep people on payroll • Develop and secure a larger supply of cash	• Institute cash payments where necessary to assure continuity	• Communicate any return to normalcy
Safety	• Practice communications about curfews, school closings, and policies with public-safety and school security personnel • Test tracking systems (transportation systems, absentee rolls, immunization registries) as means to establish whereabouts of children on a daily basis	• Ensure children transported to school can be transported home • Relax policies about use of phones to communicate with parents • Continuously reassess children's sense of safety in their school	• Promote return to "normal" operations as soon as possible
Assuring Business Continuity	• Consult with a primary area employer regarding the effect of prolonged school closure • Understand which work sectors are prioritized to ensure any change in operations has the least impact on these sectors	• Institute priority work sector list to avoid shutdown of critical industries	• Bring workers back in a structured manner, most critical first
Technology	• Plan emergency backup and protection procedures and off-site server capacity	• Take redundant backups off-site, restore websites and student/payroll data ASAP	• Use Web to connect employees and families, announce reopenings, make payments electronically
Providing Shelter for the Community	• Review planning assumptions of other agencies about the availability and role of the schools • Work with local institutions and businesses for room-and-board needs	• Determine what level of security can be provided	• Push efforts to return schools to educational uses as soon as possible
Communications via the Media	• Practice communicating with media in snow and other "regular" emergencies • Push stories (about avian influenza and other issues important to the system) out to the media on a regular basis	• Provide media footage of schools operating in special ways, but nonetheless operating	• Invite media in to demonstrate resilience in the school • Describe school progress in regular bulletins to parents, employers, etc.
Coordinating with Law Enforcement and Gov't Agencies	• Assess role of school security in providing support to community law enforcement	• Work with public-safety officials to decide the appropriateness of area curfews • Use any established monitoring systems (e.g., isolation and quarantine computer-ized monitoring systems) to keep track of children in the school system. • Demonstrate ability to work in the EOC structure	• Demonstrate that school is a safe and secure environment in all venues

** Schools should determine appropriate time frame in coordination with other agencies, epidemiological data, and funding considerations*

SOURCES

Brennan, B. 2007. Crisis and outbreak communication: Pandemic influenza and other disasters. Washington, DC: Pan American Health Organization. www.ops-oms.org/English/AD/Crisis&OutbreakComm_Presentation_Bryna_Brennan_Eng.ppt (accessed April 30, 2009).

Chess, C. 1989. Encouraging effective risk communication in government: Suggestions for agency management. In *Effective risk communication*, ed. V.T. Covello, D.B. McCallum, and M.T. Pavlova. New York: Plenum Press.

Chess, C., B.J. Hance, and P.M. Sandman. 1988. *Improving dialogue with communities: A short guide to government risk communication*. Trenton, NJ: New Jersey Department of Environmental Protection.

HHS (U.S. Department of Health and Human Services), Centers for Disease Control and Prevention (CDC). 2002. *Crisis and emergency risk communication*. Prepared by B. Reynolds. Atlanta, GA: CDC.

HHS, CDC. 2002. *Crisis & emergency risk communication: by leaders for leaders*. Prepared by B. Reynolds. www.bt.cdc.gov/erc/leaders.pdf (accessed May 5, 2009).

HHS, Substance Abuse and Mental Health Services Administration. 2002. *Communicating in a crisis: Risk communication guidelines for public officials*. Rockville, MD: HHS.

HHS. 2006. *Pandemic influenza pre-event message maps*.
English: http://avianflu.gov/news/pre_event_maps.pdf
Spanish: http://linksmedia.org/ai/resources.html (accessed October 14, 2008).

Kappel, D.J. n.d. *Crisis communication for local governments: What works, what doesn't*. Audio Conference (60 minutes). Summary and program highlights can be viewed at www.governmenteducator.com/8N/0/2/p2954Cc/p1VWSJTFi/p0e (accessed April 30, 2009).

WHO (World Health Organization). 2005. *Effective media communication during public health emergencies: A WHO handbook*. Geneva: WHO.

WHO. 2005. 77 most frequently asked questions by journalists in an emergency. In *Effective media communication during public health emergencies: A WHO field guide*, 8–9. Geneva: WHO.

TOOL 14

NEWS MEDIA COMMUNICATION

PREPAREDNESS

RESPONSE

This tool will help you to:

- Establish collaborative relationships with the news media
- Provide the news media and the public with a skilled and well-prepared ***spokesperson*** who exemplifies the characteristics required of a leader in this role
- Prepare for successful ***press (news) conferences*** and interviews

Who will implement this tool:

- The mayor
- A member of the ***municipal leadership team*** or emergency response team
- A designated spokesperson or a member of your ***communications support team***
- A ***public information officer***

During an influenza pandemic, the news media will be involved in reporting on the situation. This tool explains how to send messages out to the public through the news media and how to correct misinformation that has appeared in the press. The previous two communications tools, 12 and 13, should be read before this tool. This tool is intended for individuals who will work *directly* with journalists, television crews, radio interviewers, and newspaper editors. In this tool you will find information on how to educate the news media, avoid common mistakes, plan a news conference, provide a well-prepared spokesperson to the media and the public, and write press releases and other materials.

News messages need to be delivered in a timely manner and conveyed so that they are easily understood by the diverse segments of your community. (For information about developing effective ***key messages*** that address the primary concerns of different target populations, see Tool 12, *Fundamentals of Communication During Crises and Emergencies*.)

The news media plays a very important communications role in all emergency responses. It is critical that you establish strong, positive relationships with them before a crisis occurs. Doing so will help guarantee a smooth ***response*** and build a partnership that will last through the ***recovery*** stage of a crisis.

> *"The media will not allow you to spoon-feed them headlines. They will decide what to tell their readers, viewers, or listeners about what is occurring. Don't treat them like a member of your staff—suggest, do not dictate, and the relationship will move smoothly forward."*
>
> From the Centers for Disease Control and Prevention's Crisis and Emergency Risk Communication

BUILDING POSITIVE RELATIONSHIPS WITH THE NEWS MEDIA

Depending on the severity and magnitude of the pandemic, your municipality might get the attention of national and international news media organizations. Whether working with local, national, or international news media, understanding how they work and what they want is the first step toward building a positive relationship. Your mutual goal should be consistent, accurate, and reliable news coverage.

Be aware that as the pandemic unfolds, there may be a gap between what you believe the media should focus on and what they actually want to know. Your job in working with them is to make your points clearly and consistently and to correct any ***misinformation***.

Here are some guidelines for working with the news media:

- **Establish collaborative relationships.** As a municipal authority, you probably have already established a relationship with your local media. Building these relationships ahead of time will make it easier for you to get your messages across during a crisis. You should keep an updated list of news media contacts. Include their full name, news organization, phone numbers, fax number, and email address. This will allow you to make a quick phone call to the news editor at your local newspaper or a program director at your local radio station when a situation arises.
- **Understand the media.** The media are going to report what they think is news, not necessarily what you tell them is important. What's more, part of a journalist's job is to seek multiple perspectives, sources, and opinions on a news story. Do not expect journalists to do favors for you, such as reporting exactly what you ask them to, even if you have a friendly relationship. Media representatives will do their jobs, even in a crisis situation.
- **Respect the media.** Treat reporters, editors, and media directors with the same respect that you expect from them. Let media representatives know that you want to help them achieve their goal of informing the public.
- **Know the news media's deadlines and provide information to them on time.** The 4 o'clock news is going to start at 4 o'clock whether you are ready for an interview or not. And the media are going to report something. So it is critical for your spokesperson or a member of your communications support team to be available routinely—possibly around the clock—to respond to reporters' inquiries in time for them to meet their deadlines.

EDUCATING THE MEDIA

Part of your role in working with the media will be to educate them. You can help journalists and reporters by providing them with background information about the pandemic. You can also arrange for journalists to interview health or disaster experts prior to a crisis. These experts can serve as trusted resources for accurate background information. You and these experts can help make sure that the journalists do a good job making the information simple and easy to understand to the public.

MANAGING RUMORS AND MISINFORMATION

During a crisis, media coverage typically covers a mix of accurate and inaccurate information. It is critical that you monitor the news to identify rumors, false information, and misperceptions in order to respond accordingly. You and your team need to pay attention to the news on television, radio, newspapers, and the Internet.

When you find inaccurate information in the news, the level of your government's response should match the seriousness of the rumors. Overblown, exaggerated responses may actually give more credence to rumors. One minor mistake or exaggeration in one newspaper, for example, does not warrant the same response as a 10-minute television news story full of misinformation.

Responses to rumors should be unemotional, clear, and firm, and leave no room for doubt. You can take the steps outlined at left to help you respond.

RESPONDING TO RUMORS AND MISINFORMATION

- Meet with decisionmakers in the news media to discuss issues and define common strategies.
- Proactively and objectively address the concerns and expectations of outlets whose coverage is overly critical.
- Mention by name specific media outlets that have provided inaccurate or misleading reporting if they continue to report in such a manner.

THE EXPECTATIONS OF THE MEDIA DURING A CRISIS

During a crisis, the media will have their own expectations of government leaders and spokespersons. They will expect spokespersons and leaders to:

- Provide equal access to information for all outlets.
- Answer their questions honestly.
- Ensure the timely release of information.
- Dispel rumors quickly (or they will continue to report them).
- Commit to a schedule for media availability.
- Provide subject matter experts (if you want them to report an *official view*).
- Return their calls.
- Provide them with accurate information (or indicate that the information is preliminary and could change).
- Tell them when you do not have an answer and explain what you are doing to get it.
- Provide a consistent message during the response stages of the crisis.
- Have at least a basic understanding about how the news business works.
- Treat them with respect.

KEEPING REPORTERS ENGAGED AT THE COMMAND CENTER

Early in a crisis, the media will naturally flock to the ***communications command post***. This is the physical location that serves as the central point for all crisis-related communications and houses the communications support team. It is where journalists will be directed for answers to their questions.

However, within a short period of time, they will begin to drift and seek alternate perspectives on the crisis. If you want to lengthen the time that reporters are willing to invest in the official story, make it worth their time. You can, for example, plan to have some of your municipal officials take turns briefing them and have subject matter experts provide background information.

You can also make the media as comfortable as possible. Sometimes this is as simple as providing food and access to restrooms. After the initial stages of the crisis, you may hold ***news briefings*** to update the media only once a day. If you want the media to stay close to the command post, you can consider scheduling regular daily briefings to keep them involved.

BASIC ELEMENTS OF CRISIS AND RISK COMMUNICATION FOR SPOKESPERSONS

- Give anticipatory guidance. If you can foresee issues people may have to deal with soon (such as side effects of antibiotics), let them know what to expect.
- Be regretful, not defensive. Say, "We are sorry . . ." or "We feel terrible that . . ." when acknowledging misdeeds or failures for your municipality or a sector.
- Acknowledge people's fears. Don't tell people that they shouldn't be afraid—they have a right to their fears as a facet of their humanity.
- Acknowledge shared misery. Some people, feeling hopeless and defeated, may suffer less from fear than misery and even a sense of doom that might result from a catastrophic event. Help them move toward the future.
- Express wishes. Say, "I wish we knew more" or "I wish our answers were more definitive."
- Panic is less common than imagined and often doesn't come from bad news, but from mixed messages. If people are faced with conflicting information or recommendations, they are left with no credible source for help.
- Be willing to address the "what if" questions that everyone is thinking about and to which they want expert answers. If you are not prepared to address concerns or possibilities, you lose credibility and the opportunity to frame the "what if" questions with reason and valid recommendations.
- The media are important during the first hours or days of an emergency. They are the fastest and, in some cases, the only way to reach the public during an emergency.
- Go into every media interview with a specific purpose. Have a key message to deliver and re-deliver. If you don't have a message, you don't have a reason to do the interview.

COMMON MISTAKES MADE WITH THE MEDIA EARLY IN A CRISIS

Below are some of the common mistakes leaders make during the early stages of a crisis.

- Playing favorites or holding grudges against a media channel or person with whom you have had good or bad experiences in the past. You should give all media equal access to information during a crisis.
- Attempting to set arbitrary new rules about how media can interact with the official response group. If you have rules, state them in the planning stages before a crisis. Reach out to the media and explain why the rules exist, and remain flexible.
- Attempting to tell a reporter or editor how to do their job. From a leader, even a suggestion can sound like an order, and like most professionals, journalists don't like being given directions by outsiders. Make it your practice to start any recommendation with an opening statement, such as, "Perhaps it would be helpful to . . ."
- Paying more attention to national or international media than to local media. Even if the crisis is big enough for the national or international media to show up, do not discount your local media.

PROVIDING THE MEDIA AND THE PUBLIC WITH A WELL-PREPARED SPOKESPERSON

A lead spokesperson is an essential member of almost any emergency response team, and should be familiar to and trusted by the general public and the media. The spokesperson's image or voice alone may represent the first message your municipality sends out during an emergency. A lead spokesperson may be your public information officer, the communications coordinator from your municipal emergency response team, the top authority of one of your municipality's ***sectors*** (such as the director of your ministry of health), or a member of your municipal leadership team.

THE MUNICIPAL LEADER AS A SPOKESPERSON

Tool 12, *Fundamentals of Communication*, notes that being a good communicator is one of the basic requirements for being a successful spokesperson. But the requirements do not end there. Being a spokesperson is not as simple as reading a prepared statement. Spokespersons should thoroughly understand the situation and the role they play.

Overwhelming research shows that a credible spokesperson can influence behaviors that can save lives. Spokespersons can reduce anxiety and fear, and help communities to recover quickly from a pandemic. To do this, they must understand that it is not only the words they deliver, but also the way in which the words are expressed.

HOLDING SUCCESSFUL PRESS OR NEWS CONFERENCES

One of the toughest decisions you will have to make during a crisis such as a pandemic will be deciding whether to hold press or news conferences and, if so, when to hold them. As a municipal leader, you can decide, in consultation with your communications coordinator or public information officer, when to call a news conference based on the guidelines below.

WHEN TO HOLD A NEWS CONFERENCE

- It is a fast-breaking crisis, and the public is clamoring to know who is in charge.
- You have an urgent message or recommendation for the public.
- You have promised to update the public on a regular basis.
- You have news.

If you decide that a news conference is warranted, consider in advance *who will participate*, *what subjects* will be covered, and *who will answer* particular types of questions.

Keep in mind that the news conference set-up has an impact on what the media and the public will expect. If you seat your experts at tables, this implies that you have enough information to share that everyone should stop and sit down. If you do not have much information to share and plan to take only a few questions—or no questions at all—do not sit down. Instead, have a single microphone on a stand (not a podium, if possible) where you or the leader of the news conference speaks and refers to other experts only if needed.

The news conference begins the minute you enter the room—not when you step up to the microphone. So any discussion with those around you—official or otherwise—should take place in a separate room. And remember to *always* assume that every microphone is live at all times.

Refer to Handout 1 for a checklist you can use for planning and organizing a news conference.

TIPS FOR SUCCESS AT A NEWS CONFERENCE

Eliminate unnecessary distractions. Avoid being surrounded on stage by members of your staff or other parties who might engage in conversation. Even while reporters watch you in the front of the room, they may be listening to comments that contain confidential or sensitive information offered in the back.

Provide consistent non-verbal communication. A lot of information can be given away by a nod or a puzzled look.

Keep everyone out of the area of the news conference except for the media, your communication staff, and the principal participants in the event.

Hold a news conference only when you have news or important messages for the public. If a news conference is not appropriate, you can provide interviews to individual media outlets instead.

SPEAKING ON RADIO

Some radio stations have news shows or commentaries. A host may talk about current events and interview guests or take telephone calls on the air. These "Talk Radio" shows offer a good opportunity to educate the audience about what to do during crisis situations. They are one of the quickest, easiest, and least expensive ways to get information about an issue out to the community.

Talk radio provides an opportunity for you to speak directly to the public about important public health messages and to share the actions you are taking to protect your municipality in such emergencies as a pandemic.

GUIDELINES FOR AN EFFECTIVE APPEARANCE ON RADIO

Whether you are calling into a program or being interviewed in person, the following guidelines can help you meet your communications goals and be an effective spokesperson on radio.

- In an interview, you will be answering questions or addressing statements made by the show's host, but remember that your real ***target audience*** is the show's listening audience. Try to include a public health expert in the interview with you who can answer questions about the influenza pandemic and public health measures.
- Your experience as a municipal leader has probably taught you how to effectively talk with and listen to your community. But it is a good reminder to think about one member of your audience, sitting at home or driving to work, listening to the show. Use your voice to speak to this person in a way that is persuasive and compelling.
- Know what you are going to say before you begin. Try writing down two or three notes to help collect your thoughts and organize your key messages.
- If you are phoning into the radio station, call early in the program even though you may be put on hold.
- Always assume that listeners don't know as much about an issue as you do.
- Start with your most important and compelling statement. Once you are on the air, you will only have a short time to make your points.
- Don't lose your temper. If you get follow-up or combative questions, answer them in a way that takes listeners back to your key messages.
- Always refer listeners to a Website, telephone number, or another official source of information to take action or to learn more.

WRITING FOR THE MEDIA DURING A CRISIS

Communications will proceed more smoothly if much of the information to be conveyed to the media is written and cleared prior to a crisis. For example, ***backgrounders***, ***fact sheets***, and basic templates for ***press releases*** (news releases) should be prepared in advance if possible. Work with your staff, your communications coordinator, and your emergency response team to ensure that the messages in all of your media materials are consistent. Use plain language and avoid acronyms and jargon; define scientific terms that cannot be avoided.

PRESS RELEASES

You can think of the press release as a crisis update for the public, providing the who, what, when, where, why, and how on a situation. It should have the new information you wish to convey to the public (such as school closures or the initiation of a new food-for-work program). Press releases should be no more than one or two pages in length and should provide only enough background information to provide context.

A press release should clearly state your most important messages first, followed by supporting information, and should generally include one or more pre-approved quotes from government leaders and/or subject matter experts. It should also have contact information for the individual the media may request more information or interviews through. Related fact sheets or other materials may be sent to appropriate media along with the press release. Handouts 2, 3, and 4 provide a press release template and two examples.

FACT SHEETS AND BACKGROUNDERS

The media like to have background facts or information that they can use when writing or reporting their stories. Information that is event-specific should be included in the press release. Additional details, history, and supporting facts should be provided separately as written "backgrounders" or fact sheets.

MEDIA ADVISORIES

Media advisories are brief documents sent to journalists, news organizations, or other media outlets that are not meant to be published. They inform the media about an event or upcoming news story. Advisories should be as short and to-the-point as possible (approximately half a page to one page), and provide the most relevant details (the who, what, when, where, and why). In the case of an unusual disease outbreak, such as an ***influenza pandemic***, advisories should also contain a key message and sometimes a quote stating the municipality's specific response. Include the contact information of the person who can help reporters with their questions or interview requests. Use a follow-up call to confirm receipt and provide additional information. (Handout 5 provides a media advisory template that you can modify for use in your municipality.)

Guidelines for Disseminating Press Releases and Media Advisories

- Send your media advisory or press release to all relevant media by fax or email (or both, if necessary to ensure delivery).
- Identify, in advance, the people to whom you want to send your advisories and press releases. Address faxes and emails to these individuals directly, and ask to speak to them when you follow up.

- The lead municipal authority, your public information officer, or your designated communications coordinator should follow up with a phone call or email to confirm receipt and to see if they have any questions. Keep your conversation brief and courteous at all times.
- Be prepared to resend your advisory or press release to those who say they have not received it.
- Make sure that your staff and official spokesperson have copies of any materials you send at the same time the media does.

LETTERS TO THE EDITOR AND OP-EDS

Newspapers may print letters to the editor and opinions on their editorial pages. These are submitted by readers, not written by the newspaper staff, and are also called ***op-eds***. Typically, during a crisis response, you will not have time to write a letter to the editor or an op-ed but, after the crisis is over, you may wish to consider this way of getting your message out.

A letter to the editor or an op-ed can put the influenza pandemic event in perspective and offer suggestions for ***preparedness*** and response to future emergencies. This can also prove to be a powerful instrument for getting life back to normal and encouraging people to resume normal activities while acknowledging the losses of human lives and the impact on your economy. You may wish to continue writing letters that will build resilience in the community and help prepare for future emergencies.

To get your op-ed or letter to the editor published, begin by calling the publication (newspaper or magazine) to find out the name of the relevant contact person and the publication's preferred means (fax or email) for receiving submissions to the opinion page. When you submit an op-ed, include a brief cover letter explaining who you are (e.g., describe your background or qualifications) and why your opinions are important.

Handout 6 provides a sample pitch letter for an op-ed, and Handout 7 provides a sample op-ed related to pandemic influenza that can be adapted to your municipality's needs and submitted to your local newspaper.

TIPS FOR WRITING AND PLACING LETTERS TO THE EDITOR OR OP-EDS

- Make an outline. It will help you to stay focused and remind you to cover key points.
- Stick with one subject per submission.
- Express an opinion and state it clearly in the beginning.
- Don't assume that your readers are aware of the issue or your viewpoint. Give them enough background information to help them follow your logic.
- Support your position with statistics or study results, but don't bury readers with numbers.
- Use appropriate anecdotes (you can reference a recent news event or story).
- Limit your letter to the editor to no more than 250 words (or as the newspaper requires). Make your words count. Remember that editors will edit long letters.
- Keep your op-ed to no more than 800 words.
- Include a "by-line" at the end of your op-ed consisting of your full name, city, and your title or position.

SPECIFIC CHALLENGES AND GUIDANCE FOR SPOKESPERSONS

As the face of the municipality's response to a crisis, the lead spokesperson will need to be prepared to communicate to a variety of audiences in a range of situations. Some specific advice follows to help you prepare.

REACHING YOUR AUDIENCE

In the midst of a crisis, remember that you are communicating to people who are hurt, confused, anxious, and possibly angry. Do not let the media distract you or lead you to respond inappropriately. Remember that the emotions and behaviors of your principal audience are your concern.

- Before participating in an interview or speaking before a microphone, remind yourself of your principal audience and their concerns by forming a mental picture of the audience you are trying to reach.
- To help stay focused, picture your grandmother, son, sister, or other family member. Humanize your audience because they are watching every move you make in front of the camera.

- Remember you are not answering the media's questions, you are answering the questions of the people in your community who want to know what they can do to protect themselves. They want to know who the individuals and organizations are that they can turn for help.

COMMUNICATING SCIENTIFIC AND TECHNICAL INFORMATION

To communicate effectively to the general public, your communications support team will need to create messages that are free of scientific jargon and technical language. When you are communicating key messages via an interview or news conference, keep in mind the following:

- Use names and terms consistently throughout the emergency.
- Avoid acronyms and jargon, such as *CDC*, *WHO*, *morbidity*, *prophylactic*, or *odds ratio*. If some technical terms cannot be avoided, provide clear definitions.
- Choose visual materials that you know the media will want, and make sure that the information conveyed by the visuals is explained fully.
- Use these visuals to clarify your key messages and supporting information.
- When deciding whether the information you want to share is relevant, weigh not only how much information you should share but also whether it will hurt you by causing undue fear or confusion.
- Use familiar frames of reference to explain measures of how much, how big, or how small, and try to create mental pictures of such measures. For example, if authorities recommend social distancing, show how far away people should stand from one another.

WORKING WITH REPORTERS

Below are the most common obstacles faced by spokespersons when interviewing with reporters. Preparing ahead of time for how you will address these obstacles will help you have a successful interview in which you will be able to focus on seizing the opportunity to get across your key messages.

1. Don't let a reporter put words in your mouth. The reporter may use inflammatory or emotionally laden words. Avoid repeating these.
2. If a question contains leading or inflammatory language, reframe the question to eliminate this language, and then answer the question.
3. Don't assume that the reporter is correct if they claim that someone has made an allegation. Don't react to new information a reporter gives you. Instead, say "I have not heard that" or "I would have to verify that before I could respond."
4. If a reporter leaves a microphone in front of you after you've answered the question, stop. Do not answer the question again or add to your answer. Instead, say "Do you have another question?" Say it matter-of-factly, without sarcasm or expressing annoyance.
5. Anticipate questions. Work with your public information officer or your communications coordinator to figure out as many potential questions as possible and draft the answers.

6. Nuances count. A word change here or there may make the difference in how well your answer is received. What is the point you want to make? What rings true and doesn't sound evasive?
7. Make your point. Have your key message prepared ahead of time. Try to speak your message within the first 30 seconds of the interview and in fewer than 90 words.
8. Don't fake it. If you don't know the answer, say so. If it's not in your area of expertise, say so. Commit to finding the answer.
9. Never speak disparagingly of anyone, not even as a joke, and don't assign blame.
10. Don't respond to hypothetical questions. Reframe the question in a way that addresses the legitimate concerns of the public.
11. Don't ask reporters to let you review their finished articles or interviews before publication. Offer to clarify information for them as they prepare their piece.
12. Break down multiple-part questions, and answer each part separately.
13. Don't raise issues you do not want to see in print or on the news.
14. Don't say "no comment" in response to a reporter's question. Instead, state why you can't answer that question. Say that the matter is under investigation or, simply, that you are not the appropriate person to answer that question.

EXPRESSING EMPATHY, SYMPATHY, AND GIVING DIRECTIONS FOR ACTION

Remember to say what actions have been taken in response to the crisis and to focus on positive steps that can be taken.

As a spokesperson, it will be important to remember that the general public is looking for an expression of empathy (understanding) and sympathy (caring) from those in power, and they will see you as their representative. If you let your words convey a sincere understanding of what the people in your municipality are feeling, you will make a giant leap toward gaining their trust.

Examples of what to say:

- "I understand that this situation may be frightening . . ."
- "I know you are looking for answers to important questions . . ."
- "We want answers too, and we're taking steps to get them, including . . ".
- "This is a confusing time for us. It's such a horrible tragedy we face today."

Do not simply memorize words of empathy. Aim to be a compassionate leader, and show how the members of your municipality can respond not as victims, but as helpers. Express your concern, and then give directions for action. Those two steps, in that order, will help you and your community early in the disaster. A leader who is sharing the risk, as part of the affected community, can call on their community to shoulder the burden and help others.

RESPONDING TO GRIEF

In a catastrophic event, many people might be ill, dying, or in need of treatment, and it may be your job to talk with them about what is happening. Leaders communicating directly with members of a community who are experiencing the extreme pain and grief that comes from losing loved ones must be especially aware of how grief is experienced.

Grief is a universal emotion, but no two people experience it in the same way. Keep in mind these basic concepts in highly emotional emergency situations:

Empathize with the Individuals Impacted by the Disease and their Families

- Privacy is important; assure those involved that the information they share will be kept private.
- Try not to answer questions outside of your area of expertise; ask the individual involved to let you refer them to an expert.
- If you attempt to make physical contact with a grieving person and they tense or flinch at your touch, don't take it personally.
- Family members may voice their feelings quite strongly. Short statements of condolence, such as, "I'm so sorry," " This is a sad time," or "You're in my prayers" are enough of a response on your part.

Listen Carefully

- Place the speaker's needs above your own.
- Always be honest in your responses.
- Try not to interrupt the speaker to give him or her advice.
- Accept moments of silence.

Focus on Better Communication

- As often as possible, use the person's name in the conversation.
- Ask a clarifying question (e.g., "Can you help me understand?")
- Allow the conversation to evolve—resist the temptation to push it where you hope it will go.
- Be sensitive to the person's nationality, ethnicity, religion, age, values, and feelings.

Finally, use *death* or *dying*, not softer euphemisms. Many people feel patronized by words like expired or expressions such as *received his heavenly reward*. Use the same words as the grieving person might use, and you will be able to convey respect for cultural and religious differences.

CONCLUSION

Your work with the media during a crisis situation will involve building strong, positive relationships; having clear and concise printed materials; and having a skilled and well-prepared spokesperson. All of these should represent your municipality's emergency ***communications goals***.

NEWS CONFERENCE CHECKLIST

A news conference can be a good way to provide media with information. Take into consideration the following items when planning and holding a news conference.

PLAN DATE, TIME, AND LOCATION

- ☐ Have you given the media as much advance notice as possible?
- ☐ Is your event in a location that is easily accessible to the media?

INVITE KEY MEDIA TO ATTEND BY SENDING OUT A MEDIA ADVISORY

- ☐ Does your media advisory provide the date, time, and location of the news conference; the subject to be discussed; the names of the people who will be speaking or otherwise participating; the names of contact people from whom the media can obtain advance (and follow-up) information; and a list of languages in which materials will be provided?
- ☐ Have you placed follow-up calls before the conference to remind reporters about the event?

PREPARE THE ROOM

- ☐ Does the room in which your news conference will take place include a stage area, chairs, a podium, and microphones? Have you checked to ensure that all equipment is working properly?
- ☐ Have you rented a mult box (or press box) from an audio/visual company for broadcast reporters to plug into? (A mult box connects to a powered speaker or mixer to allow many separate recordings of one audio signal.) Keep in mind that mult boxes may not be needed in areas with more advanced technology.
- ☐ Is your sector's or department's name (and logo) clearly visible on the front of your podium, or behind the speaker?
- ☐ Do you have a backup plan for possible glitches?

PROVIDE MEDIA MATERIALS

- ☐ Have you prepared media kits that include news releases, speaker names and bios, fact sheets, or other materials that might help reporters be better prepared to write their stories?

BE PREPARED

- ☐ Have the main spokespersons rehearsed the key messages developed for the event, and are they ready to answer questions?
- ☐ Do your spokespersons know what the most important information is and how to stay focused, even if asked questions that concern other issues?
- ☐ Have you developed answers to potentially controversial questions that may be asked?
- ☐ Have you discussed in advance which key points will be made by each spokesperson?
- ☐ Have you designated a moderator to keep the conference on schedule, establish ground rules, and field reporters' questions?
- ☐ Have you set a clear end time for the news conference?
- ☐ Have you made a Spanish spokesperson (or other appropriate language spokesperson) available at the news conference? Have you made a reference to this fact in your media materials?

BE THOROUGH

- ☐ Have you made sure that all questions are answered during the news conference? If a spokesperson does not know the answer to a question, make sure a member of the team finds the answer after the news conference and makes it available to the reporter as soon as possible. If possible, allow spokespersons to be available to answer questions one-on-one with reporters following the conference.
- ☐ Have you designated someone to ask, during the news conference, the questions that reporters may neglect to ask themselves?

MONITOR ATTENDANCE AND FOLLOW UP

- ☐ Have you asked reporters to sign in? This will provide a list, for future reference, of those who attended (which can be used to build your media contact list for future press releases and media advisories) and those who did not (which is useful for following up with media representatives who were unable to attend the news conference).
- ☐ Have you offered key media personnel who were not able to attend the press conference a phone interview with one of the spokespersons, or have you sent them a media kit?

PRESS RELEASE TEMPLATE

Use your agency's letterhead, or include your logo at the top.

FOR IMMEDIATE RELEASE
Date (also include the time if more than one release is issued in one day)

Contact Information
Contact person
Telephone number
Fax number
Email address
Website address

HEADLINE

City, State, Date—Opening paragraph: should be short and contain the most crucial information—the who, what, when, where, why, and how—such as government actions, decisions, and recommendations.

Second and subsequent paragraphs: should provide any necessary details and only enough background information to provide context (other background information should be included in separate backgrounders or fact sheets). Include quotes from government officials, experts, and other relevant actors.

If the press release extends beyond one page, be sure that all of the most important information appears on the first page. Signify that the press release continues on the next page by including the following at the bottom of the first page, centered:

– more –

Continue on the second page (if any) with a brief version of the headline and page number, as follows:

Shortened headline – Page 2

At the end of the release, summarize the most crucial information one last time, and provide a source for more information that is accessible by the public, such as a Website address or telephone number (e.g., a hotline).

The last paragraph should provide a brief description of the agency or organization issuing the press release, including (if relevant) its location and Website address.

Always include three pound symbols (or hash marks) centered at the bottom of the last page to signify the end of the press release.

###

SAMPLE PRESS RELEASE A—TWO RIVERS HEALTH DEPARTMENT ("SCHOOLS REMAIN OPEN")

Following is a press release template that the Two Rivers Public Health Department in Nebraska provides to the public school sector for use in the event of an influenza pandemic during which the schools will still remain open.

FOR IMMEDIATE RELEASE: (*DATE*) **Contact:** (*Public Information Officer name and number*)

TWO RIVERS PUBLIC HEALTH DEPARTMENT— SCHOOLS ARE OPEN BUT PARENTS SHOULD PREPARE

Two Rivers, NE, *Date*—Schools will remain open despite the pandemic influenza outbreak in the county, but parents are asked to prepare for possible closures if the virus continues to spread.

School officials, Nebraska Department of Health and Human Services, Nebraska Department of Education, and the Two Rivers Public Health Department are working together to monitor the situation, and parents will be updated with any important information.

"At this time, we believe that students can safely attend classes and schools will remain open. Our thoughts are with all of our families and children who are affected," said Terry Krohn, director, Two Rivers Public Health Department.

If the pandemic influenza continues to spread and more students become ill, health officials say they may need to order schools closed for a period of time. They urged parents to begin planning now for childcare in their homes. Health officials say that parents can help protect their children and prevent the spread of pandemic influenza as they would colds and other influenza by taking the following precautions:

- Teach your children to wash hands frequently with soap and water for 20 seconds. Be sure to set a good example by doing this yourself.
- Teach your children to cover coughs and sneezes with tissues or by coughing into the inside of the elbow. Be sure to set a good example by doing this yourself.
- Teach your children to stay at least three feet from people who are sick. People who are sick should stay home from work or school and avoid other people until they are better.

Health officials point out that recommendations may change during the course of an influenza pandemic. For school updates, parents can call the school district's hotline at (*INSERT NUMBER*) or Two Rivers Public Health Department at 1-308-995-4778 or toll free at 1-888-669-7154. For more information on pandemic influenza, visit the Two Rivers Public Health Department's Website at www.tworiverspublichealth.com or the Federal Government Website at www.pandemicflu.gov.

The mission of the Two Rivers Public Health Department is to assess and monitor the health status of the district and to facilitate the linking of resources to ensure that health promotion and prevention services are meeting the needs of the public in Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney, and Phelps Counties.

###

SAMPLE PRESS RELEASE B—TWO RIVERS HEALTH DEPARTMENT ("SCHOOLS WILL CLOSE")

Following is a press release that the Two Rivers Public Health Department in Nebraska provides to the public school sector for use in the event of an influenza pandemic that requires schools to close. (A similar press release would be issued when schools reopened.)

FOR IMMEDIATE RELEASE: (*DATE*) **Contact:** (*Public Information Officer name and number*)

SCHOOLS HAVE BEEN ORDERED CLOSED BY LOCAL SCHOOL OFFICIALS AND TWO RIVERS PUBLIC HEALTH DEPARTMENT

Two Rivers, NE, *Date*—Schools have been ordered closed by local school officials, the Department of Education, Nebraska Health and Human Services, and the Two Rivers Public Health Department as a result of the pandemic influenza outbreak in the county.

Schools may be closed for a period of time—days or even weeks. Because the virus is easily spread from person to person, colleges, daycare centers, and preschools have also been ordered to close. Because it is unsafe for large groups of people to gather, health officials warn people to stay away from shopping malls, community centers, and other places where germs can be spread.

"We know this is an anxious time for our community, and our hearts go out to those who are ill. We are working closely with the schools to deal with the situation and will keep parents updated with any important information," said Terry Krohn, director, Two Rivers Public Health Department.

According to Two Rivers Public Health Department, the purpose of closing schools is to limit contact among children to decrease their risk of getting sick and to limit the spread of infection.

Because so many people are sick with influenza, health officials acknowledge that it may be hard to get a doctor's appointment, go to a clinic, or even be seen in a hospital emergency room.

They provided some tips for residents to care for the sick at home:

- Have them drink a lot of liquid (juice, water).
- Keep the sick person as comfortable as possible. Rest is important.
- For adults with fever, sore throat, and muscle aches, use ibuprofen (Motrin) or acetaminophen (Tylenol). Do not use aspirin in children or teenagers; it can cause Reye's syndrome, a life-threatening illness.
- Keep tissues and a trash bag within reach of the sick person.
- Be sure everyone in your home washes their hands frequently.
- Keep the people who are sick with influenza away from the people who are not sick.

More information on pandemic influenza is available on the Two Rivers Public Health Department's Website at tworiverspublichealth.com or by calling the Two Rivers Public Health Department at 1-308-995-4778 or toll free at 1-888-669-7154.

The mission of the Two Rivers Public Health Department is to assess and monitor the health status of the district and to facilitate the linking of resources to ensure that health promotion and prevention services are meeting the needs of the public in Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney, and Phelps Counties.

###

MEDIA ADVISORY TEMPLATE

A media advisory is intended to drive media to attend an event—such as a vaccination clinic or a news conference. Because it is like an invitation, it answers only the most important questions the media will want to know: ***who, what, when, where****, and* ***why****.*

Send the advisory to your local media ***before*** *the event and again* ***the day of*** *the event. Call reporters and news desks the* ***morning of*** *the event as a reminder and to confirm their attendance.*

If press representatives have confirmed their attendance, set up a media hospitality area where reporters can sign in and gather media materials, such as a fact sheet or biographical information about the guest speaker(s). Make sure you know when and where your spokespersons will be available.

Below is a media advisory template that the Centers for Disease Control and Prevention (CDC) recommend for use during National Influenza Vaccination Week.

FOR IMMEDIATE RELEASE
CONTACT: Tom Jones
Agency or Organization
Phone: (916) 555-5555
Fax: (916) 555-5500

[NAME OF YOUR DEPARTMENT] Holds [EVENT] as Part of National Influenza Vaccination Week

---

[*City*, *State*]—[*Name of Your Department*] is hosting a [*event*], which is expected to involve more than [*minimum number of expected participants*] from [*name(s) of area(s)*].

WHO: [*List any speakers, experts, and other attendees of note who may be of interest to the press. Include titles whenever possible.*]

WHAT: [*Provide additional details about the event (e.g., What activities are scheduled).*]

WHERE: [*Address of the event location*]

WHEN: [*Date and time of the event*]

WHY: National Influenza Vaccination Week provides an important opportunity for our community to tell people how important it is to get an annual influenza vaccine. Getting vaccinated is the single best way for people to protect not only themselves influenza, but their loved ones as well.

CONTACT: [*Name, phone number(s), fax, and email address of contact*]

For more information about influenza and the influenza vaccine, visit www.cdc.gov/flu and [*Insert department/organization Website, if applicable*].

###

SAMPLE PITCH LETTER FOR AN OP-ED

Date

Mr. Peter White
Editorial Page Editor
Title of Publication

Dear Mr. White,

Attached for your consideration is an article written by Dr. John Smith, Chief of the Avian Influenza Unit of the Ministry of Health [***the author of the article should be a respected national or local figure, ideally someone with expertise in public health***], intended to create awareness about avian and pandemic influenza among opinion leaders and decisionmakers in our country and to encourage all readers to reconsider our pandemic preparedness efforts.

As you surely already know, Dr. Smith is a reputable epidemiologist with considerable experience in successfully dealing with several public health crises in the region [***include a very brief bio of the author and why he/she is qualified to speak on this issue***]. In other words, he is a scientist with great authority to speak on this subject.

The threat of an influenza pandemic still lingers upon us. According to World Health Organization statistics, more than 256 of the 417 confirmed human cases of avian influenza (H5N1) have resulted in death [***use updated information***]. If the virus mutates to one that easily transmits from human to human, a pandemic could erupt. Communities need to be prepared to respond to a pandemic, and leaders need to make sure that preparedness efforts are sufficient to mitigate the effects of such a crisis.

We are pairing the attached article "How prepared are we to deal with a crisis?" with a question-and-answer sheet on avian and pandemic influenza in an attempt to shed more light on this issue.

We would greatly appreciate your help in disseminating information about this important matter by authorizing the publication of this article.

Sincerely,

Your Name
Your Title

SAMPLE OP-ED ABOUT PANDEMIC INFLUENZA

HOW PREPARED ARE WE TO DEAL WITH A CRISIS?

Fourteen human cases of avian influenza have been recorded worldwide in the first weeks of 2009 (seven in China, five in Egypt, and two in Vietnam). Almost half (six) of these cases were fatal. Investigation into the source of infection reveals that the infected persons came in contact with sick or dead poultry.

Closer to our part of the world, in Canada, an avian influenza outbreak emerged in early 2009 among turkeys at a farm in British Columbia. More than 60,000 animals were destroyed. There are no indications that the virus has expanded beyond this farm, located near Vancouver. No cases of infected persons have been reported. Tests conducted indicate that the strain of the virus detected in the turkeys is of relatively low severity.

An avian influenza virus of high severity (highly pathogenic), like H5N1, can infect humans and result in death, as it has done to 256 people in various countries over the past six years, according to data from the World Health Organization.

So far, no country in the Americas has experienced an outbreak of highly pathogenic avian influenza, but in recent years other subtypes of the avian influenza virus (H5N2, H7N3) have caused outbreaks in Chile, the US, and Mexico—in addition to Canada—which were successfully controlled and eradicated. Public health agencies have not yet reported any signs of the disease among humans in this hemisphere. Nonetheless, the region is considered to be at increasing risk because of the speed at which the virus can spread.

If a strain like that which took hold in 1918, known as the Spanish flu (which killed some 50 million people worldwide), were to emerge in the next few years or months, it is very likely that there would not be an effective vaccine for the first wave of the pandemic, that antiviral drugs would not be widely available, and that hospitals would be too full to treat the majority of cases. Are we prepared to deal with such a scenario?

Because of the known characteristics of the disease, its likely forms of propagation, and the lack of an effective vaccine or other medical solution, we must combine medical efforts with volunteers and large-scale social protection measures led by national, regional, and municipal authorities. If a pandemic occurs, the influenza would most likely be spread by one person coughing or sneezing on another, by direct or indirect physical contact (for example, via an object touched by the infected person), or by breathing air contaminated with the virus. In this case, it will be necessary to enforce social distancing measures, such as closing schools and churches, canceling public meetings, and having employees stay home from work. Informing the public and proper communication on the part of authorities will be essential to managing the crisis.

Today we must ask ourselves the following questions: Do we have sufficient medical services to treat thousands of sick people in the event of an outbreak? Have we prepared a joint plan of action for diverse institutions, both public and private, for maintaining public order, guaranteeing access to food, containing the spread of the virus, mitigating the disease among those affected, and managing a number of deaths? Are we prepared to ensure the continuation of basic services at the national, municipal, and provincial levels when we know that many workers will not be able to work for a certain period of time and that the reduced workforce will affect the normal functioning of society as a whole? How will we manage the scarcity of basic products? Have we prepared every citizen to take measures to avoid getting sick?

International agencies and various professionals and government authorities in our country have made enormous efforts to prepare and to ensure that we will be able to respond to an emergency caused by an outbreak of a disease like avian influenza.

But we must ask ourselves if these efforts are sufficient. An avian influenza pandemic in our country could spark immeasurable economic and social consequences. The entire country could be paralyzed for some time. If we are not prepared for the crisis, excessive mortality could result.

Both citizens and politicians must make a commitment now, before a crisis hits.

[*Be sure to include the author's "by-line" (who wrote the letter) at the end of the article. An example could be:*]

John Smith
Chief of the Avian Influenza Unit
Epidemiology Division, Ministry of Health

SOURCES

Brennan, B. 2007. Crisis and outbreak communication: Pandemic flu and other disasters. Presentation. Washington, DC: Pan American Health Organization. www.ops-oms.org/English/AD/Crisis&OutbreakComm_Presentation_Bryna_Brennan_Eng.ppt (accessed April 30, 2009).

CDC (U.S. Centers for Disease Control and Prevention). October 2008. *CDC Influenza awareness campaign media relations toolkit.* Atlanta, GA: CDC. http://www.cdc.gov/flu/nivw/pdf/about.pdf (accessed May 27, 2009).

Chess, C. 1989. Encouraging effective risk communication in government: Suggestions for agency management. In *Effective risk communication*, ed. V.T. Covello, D.B. McCallum, and M.T. Pavlova. New York: Plenum Press.

Chess, C., B.J. Hance, and P.M. Sandman. 1988. *Improving dialogue with communities: A short guide to government risk communication*. Trenton, NJ: New Jersey Department of Environmental Protection.

HHS (U.S. Department of Health and Human Services), CDC. 2002. *Crisis and emergency risk communication*. Prepared by B. Reynolds. Atlanta, GA: CDC.

HHS, CDC. 2002. *Crisis & emergency risk communication: by leaders for leaders*. Prepared by B. Reynolds. www.bt.cdc.gov/erc/leaders.pdf (accessed January 21, 2009).

HHS, Substance Abuse and Mental Health Services Administration. 2002. *Communicating in a crisis: Risk communication guidelines for public officials.* Rockville, MD: HHS.

WHO (World Health Organization). 2005. *Effective media communication during public health emergencies: A WHO handbook*. Geneva: WHO.

WHO. 2005. 77 most frequently asked questions by journalists in an emergency. In *Effective media communication during public health emergencies: A WHO field guide*, 8–9. Geneva: WHO.

TOOL 15

DISASTER MANAGEMENT IN A PANDEMIC

PREPAREDNESS RESPONSE

This tool will help you to:

- Develop an organizational structure to manage a pandemic at a municipal level
- Assess needs, identify resources, plan, and implement the municipality's response to a pandemic

Who will implement this tool:

- The ***municipal leadership team***
- Individuals responsible for disaster response and implementation

What Needs to Be Done?

No one will be able to prevent a severe pandemic from coming to your municipality. However, you can play a key role in leading your municipality through a pandemic and reducing the number of deaths by having an organized disaster management system in place to respond to a pandemic.

In any serious disaster a gap develops between resource needs and resource availability. In a severe pandemic this gap will be much worse due to global supply chain disruptions or delays and the fact that governments and aid organizations will be overwhelmed responding to all who need assistance at the same time. Your plan should assume that there will be little or no assistance coming from outside the municipality.

It is of prime importance that the municipal leaders read, discuss, and study their national, regional/state, and district pandemic response plans to understand:

- What plans are already in place
- What preparedness and response resources are available
- How the municipal level plan fits into the national pandemic response structure

As municipal leaders, you will be responsible for keeping the population healthy, calm, and safe during the 6 to 12 weeks of each severe pandemic wave (remember there could be as many as three waves). Your actions can determine whether there are many deaths or relatively few.

The most important goals of successful municipal pandemic management are to:

- Have a strong enough organizational structure to manage a pandemic in the municipality
- Continually assess needs, identify resources, plan the response, and implement the plan
- Keep the number of deaths to a minimum

STEPS TO FOLLOW FOR AN EFFECTIVE PANDEMIC RESPONSE

INTRODUCTION

It is strongly recommended that your municipal leadership team work within existing disaster preparedness and response structures in the municipality. There is no reason to change a disaster management system that works! In fact, existing plans and resources are the foundation on which to build a local pandemic plan.

Therefore, prior to launching a pandemic preparedness and response effort in a municipality, the first step should be to read and follow the directions of the national, regional/state, or district pandemic response plan.

Finally, during any gathering before or during a pandemic, flu prevention protocols should always be exercised in order to protect against infection. Participants should be advised to:

- Wash their hands frequently
- Cover coughs and sneezes
- Keep their distance
- Consider masks, if available
- Inform the group by phone or messenger and stay at home if feeling ill

STEPS:

1. **Establish an emergency operations center**
2. **Continually assess needs, identify resources, and plan for response**
3. **Implement the response**
4. **Prepare for community recovery**

STEP 1: ESTABLISH AN EMERGENCY OPERATIONS CENTER

The ***Emergency Operations Center*** (EOC) is a vital component of an effective disaster response center. The mayor and support staff responsible for the regular, daily functioning of the municipality may need to strengthen the organizational structure to manage a severe pandemic. Working with leaders from both the public and private sectors, create an EOC if one is not already present.

An EOC will:

- Work from a shared physical location
- Identify pandemic response sector representatives (see suggested sectors in the table on page 4)
- Include many already identified municipal leaders and disaster response personnel
- Serve as the center of all pandemic planning and response
- Keep the mayor updated and informed regarding the status of the pandemic, the status of all pandemic response activities, and the status of all available resources
- Support the needs of all responders

How to Create an Emergency Operations Center (EOC)

1. Before a severe pandemic arrives in the municipality, convene a meeting of all municipal leaders to include elected and appointed officials and private-sector leaders.

2. During this meeting select the most interested, qualified, and competent persons to lead each of the sectors listed in the table. In addition to the sector lead, identify at least one additional person per sector to provide relief and backup for the main representative. (See Tool 16: *Maintenance of Essential Services*)

3. Establish an independent physical location for the EOC where these people can work near one another and easily share information. If possible, the EOC should be located near the office of the mayor or other designated municipal leader.

4. To begin pandemic preparedness and response work in the municipality, complete the following EOC assignments. Please note that these assignments are meant to be completed over several days:

   Initial EOC Assignments:

   - Complete the set-up of the EOC physical space. This space will need to be large enough to house all EOC members at the same time. Each EOC member will need a chair and desk (or table space), access to a working communication device* (cellular phone, landline phone, handheld radio, other), and a paper sign with the name of the sector clearly written and posted for other EOC members to see. Copies of all existing plans and contact information for all EOC members should also be provided (See Handout 1).
   - Develop a municipal resource list and resource map (See Step 2).
   - Plan and implement your municipal response (See Step 3).
   - Include a plan for police or other security officers to protec.t all critical resources and facilities, if needed.
   - Support response team activities.

   ** Individual communication devices are a critical resource for effective pandemic management. If possible, all municipal leaders should have individual communication devices and a master list of contact numbers (or access channels in the case of radio). These numbers should be written down and distributed.*

THE EMERGENCY OPERATIONS CENTER

Sector	Pandemic Management Function
Mayor or local leader	• Executive leadership
Telecommunications and information technology	• Oversight of communications within the disaster management response structure • Coordination with telecommunications and information technology providers • Maintenance and repair of telecommunications and information technology
Public safety and security	• Police • Fire • Public safety and security support • Support to access, traffic, and crowd control • Facility and resource security • Coordination of first responder and emergency medical activities
Public health and medical services	• Community-wide health promotion, infection prevention, and household preparedness • Medical care for pandemic and non-pandemic disease • Emergency food/food aid • Mental health services
Public works	• Utilities • Water • Roads • Garbage removal and sanitation • Infrastructure protection and emergency repair • Engineering services and construction management
Communications and external affairs	• Emergency public information and protective action guidance • Media and community relations • Trained media spokespersons • Intergovernmental communications
Logistics and transportation	• Logistics planning • Resource support (facility space, office equipment and supplies, contracting services, etc.) • Maintenance and repair of transportation • Vehicles • Mass fatality planning
Food security	• Food safety and security • Food stockpile assistance
Municipal finance	• Trade and commerce • Labor

Sector	Pandemic Management Function
Business sector	• Banking • Commercial enterprises • Chamber of Commerce • Small businesses
Volunteer coordinator	• Maintain up-to-date information on potential volunteers for all sectors • Coordinate training and use of volunteers
Community recovery	• Social and economic community impact assessment • Short-term relief activities • Long-term recovery and resilience building
Other (as needed)	

STEP 2: CONTINUALLY ASSESS NEEDS, IDENTIFY RESOURCES, AND PLAN FOR RESPONSE

Remember to read and follow the directions of the national, regional/state, or district pandemic response plan, as these plans will serve as the basis upon which to build a municipal response.

You and your disaster response team will need to focus on accomplishing the following goals simultaneously. The primary goal will be to keep the number of deaths in a municipality to a minimum, so first consideration should be given to what people need to stay alive during a severe pandemic.

HOW TO ASSESS AND IDENTIFY MUNICIPAL RESOURCES

Develop a resource list.

Each EOC representative should identify and list any and all resources that might be required to meet the needs of their sector. For example, the EOC representative for transportation should ask vehicle owners in the municipality if their vehicles could be made available for pandemic response activities. From these responses, the transportation representative then compiles a master list of all available vehicles. In addition, a handout is provided to begin to assess healthcare resources as an example. Similar documents should be developed for the other sectors.

As each EOC representative develops a similar list, the EOC will have a strong indication of which resources are available for pandemic response. Over time, resource availability will change; this is important information for the municipal leaders to have in making decisions.

One of the most important resources that will be needed for the response is human resources. Volunteers will be needed to assist in a variety of tasks, both ones that require special skills and others that do not require skills or expertise. In a severe pandemic, there will be a role for anyone who is available to assist.

A volunteer coordinator should be designated to compile a master list of all volunteers, trained and untrained, and to coordinate the use of the volunteers during the response. (For more information, see Tool 17, *Volunteer Coordination* and Tool 16, *Maintenance of Essential Services.*)

Develop a municipal resource map.

Typically a map of the municipality will be available in the mayor's (or designated municipal leader's) office or can be obtained from a local office of law enforcement, firefighters, emergency medical services, or the military. In the event a municipal map is unavailable, the EOC should draw a simple municipal map as shown in the picture at left. Such maps typically include useful information such as key landmarks, roads, water, schools, places of worship, and other infrastructure. The EOC should identify listed resources on its municipal map using colored stick pins or labels.

The municipal resource map will help determine what gaps in resources exist in the municipality, while demonstrating to the community at large that an organized preparedness and response effort is underway.

Identify gaps and plan to address them.

Once both the needs for resources and the available resources have been identified, you can begin to develop priority areas to address existing gaps. An example may be the need to determine how to prioritize anticipated needs for gasoline or electricity in the event there is an insufficient amount available.

Develop a multisector municipal response plan.

As discussed, the national, regional/state, and district pandemic response will serve as the basis upon which to build the municipal response plan. Be sure to include the local reinforcement of all national messages in your plan.

A municipal response plan should include the following:

- *Overall goal of the plan:* Keep the number of deaths in the municipality to a minimum.
- *Key objectives of the plan (use the Tools to develop these):*
  - Provide executive leadership, including continuing essential government and private sector services during the pandemic, and determining who will hold authority in the municipality, in the event the mayor (or designated municipal leader) becomes ill or dies. (For more information, see Tool 16, *Maintenance of Essential Services*.)
  - Limit the spread of disease in the municipality.
    - Establish policies for social distancing (See Tool 5, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality*).
    - Determine legal framework for social distancing policies
  - Assure adequate food and water for everyone in the municipality (See Tools 7–11 in the *Food Security and Livelihoods* section).
  - Use available healthcare resources to reduce deaths from both pandemic and non-pandemic illness (See Tools 3, 4, 5, and 6 in the *Health* section).
  - Maintain calm (See Tools 12, 13, and 14 in the *Crisis and Emergency Risk Communications* section).

- *Work assignments:*
  - Determine what needs to get done to achieve the above objectives.
  - Delegate assignments to appropriate EOC sector representatives.

STEP 3: IMPLEMENT THE RESPONSE

The above municipal response plan, along with a resource list and map, will serve as the basis for implementing the day-to-day pandemic response. This response will be led by the EOC and carried out in regular work shifts.

Hold a daily or work-shift update meeting: Each work shift should begin with a briefing of EOC representatives coming on duty by those finishing a shift. Topics to be covered in this meeting include:

- Update of the latest pandemic information and any public communication
- Update of all major response activities carried out by sector during the last shift
- Update of all major non-response occurrences during last shift
- Update of the resource list and resource map to show what's still available where

Write up a (1- to 2-page) daily response plan: Immediately following the shift update meeting, EOC representatives coming on duty should write up a daily response plan to include:

- Period of time to be covered by the plan
- Objectives to be achieved during the coming shift
- Delegation of work detailing which EOC sector representatives are responsible for which specific tasks to achieve the objectives of the day
- Expected weather forecast as this can greatly impact mobility of resources and transport of personnel
- Reminder of personal protective measures (social distancing, personal hygiene)

STEP 4: PREPARE FOR COMMUNITY RECOVERY

This municipal pandemic management tool is cyclical in nature. Once the municipal leaders have finalized the organizational structure, assessed needs, identified resources, and developed a municipal plan, the daily update meetings and response implementation should be repeated for as long as resources and capable personnel are needed.

Strong municipal pandemic management is one of the most important steps toward the future recovery of a community following a pandemic. However, there are numerous other activities municipal leaders can undertake to enhance and accelerate the municipality's recovery following a pandemic. These activities include those that *reduce fear* (of going without food, of getting the flu, of death, of crime and violence) and that *restore confidence* (in government, in fellow citizens, and in the ability to make a living). (For more information, see Tool 19, *Recovery and Resilience*.)

Leaders must continually ask the question, "What can we do to help our community recover from the pandemic?"

EMERGENCY RESPONSE TEAM CONTACT LIST

Once your municipality's official emergency response team has been assembled, fill out and keep handy a contact list for all team members, such as in the example below. (Please note this list is not in order of importance.)

Date last updated _____

Team Member	Primary	Backup
Mayor (or municipal leader)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Emergency Response Chairperson	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Public Safety and Security Sector Coordinator (includes police, fire, emergency medical services)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Public Health and Medical Services Sector Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Public Works Sector Coordinator (includes water, power, sanitation, road repair)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:

Team Member	Primary	Backup
Communications and External Affairs Sector Lead Coordinator (Includes trained media spokesperson)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Logistics and Transportation Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Food Sector Coordinator (food security)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Business Sector Liaison (trade, commerce, banking, tourism, labor)	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Volunteer Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Recovery Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:

Team Member	Primary	Backup
Municipal Finance Sector Coordinator	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Telecommunications and IT Services	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
Others as available and needed, such as: • Social services • Family welfare • Faith/religion counselor • School coordinator • Community liaison • Legal representative • NGO representatives	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:
	Name: Work: Home: Cell: Email:	Name: Work: Home: Cell: Email:

ASSESSING HEALTHCARE RESOURCES

Municipality:_____Village/Neighborhood:_____ Date:_____

	Describe Resources Available
Total # of inpatient beds (in hospitals, private clinics, health posts)	
Services available at healthcare facilities (for example: ventilators, intensive care, respiratory isolation, intravenous hydration and antibiotics, laboratory, maternal and child care, surgery)	
Maximum # of outpatient clinic and office visits per day	
Doctors	
Nurses	
Pharmacists	
Community health workers	
Community volunteers	
Traditional healers	

TOOL 16

MAINTENANCE OF ESSENTIAL SERVICES

PREPAREDNESS

This tool will help you to:

- Identify ***essential services*** in a municipality
- Create a Continuity of Government Plan
- Help all sectors create Continuity of Operations Plans for essential services

Who will implement this tool:

- The mayor or the ***municipal leadership team***
- All sectors, agencies, businesses, and organizations that provide essential services for the municipality

WHAT ARE ESSENTIAL SERVICES?

Essential services are the services and functions that are absolutely necessary, even during a pandemic. They maintain the health and welfare of the municipality. Without these services, sickness, poverty, violence, and chaos would likely result.

While each municipality will need to determine what its essential services are, here are some examples:

- Executive governance (the mayor, or his/her designee, who is in charge and has the authority to make executive decisions and enact policies)
- Healthcare
- Fire and police protection
- Provision of clean water
- Basic sanitation, including sewage and garbage removal
- Maintenance of communication infrastructure (e.g., telephone system, radio, internet)
- Maintenance of utilities (e.g., gas and electricity)
- Provision of food and other essential goods (see below)
- Transportation
- Road maintenance/repair
- Banking
- Payroll departments
- Tax collection

Essential goods are the food and other supplies that a municipality needs to survive, such as medical supplies and gasoline.

Essential workers are the personnel needed to maintain essential services.

Non-essential services are the services that are not essential to a municipality's survival and can be stopped or closed down during a pandemic. Some examples are:

- Tourism
- Culture/entertainment
- Libraries
- Retail stores
- Barber shops

WHAT IS CONTINUITY OF OPERATIONS?

Continuity of Government Plans and Continuity of Operations Plans for businesses and organizations help them to continue providing their essential services during times of crisis. (A Continuity of Government plan is a Continuity of Operations Plan for government—the term Continuity of Operations Plan will be used to refer to plans for both government and business in this document.)

Governments and businesses use these plans to prepare for disasters, such as a pandemic, during times when it is difficult or impossible to operate normally.

HOW CAN CONTINUITY OF OPERATIONS REDUCE DEATHS DURING A PANDEMIC?

Experts estimate that at the peak of a pandemic, 40 percent of the workforce will be unavailable to work. Employees may be sick themselves or caring for sick family members. So it is almost certain that key government and business leaders, and many essential workers, will be unable to work for a period of time. At the same time, there will be higher demands for some essential services, such as healthcare.

Failure to continue basic services during a pandemic will result in many unnecessary deaths. Municipalities that create Continuity of Operations Plans ahead of time will be able to reduce the number of deaths by accomplishing the following:

- Maintaining strong government leadership
- Helping to feed their populations
- Continuing to provide clean water, electricity, sanitation, communications, and other basic services
- Continuing to provide healthcare services to those who need them most

HOW TO GET STARTED

1. Identify all the essential services in the municipality. Ask businesses and organizations to identify the ones they provide. Create a list that includes all essential services.
2. Identify all non-essential services that could be suspended during the pandemic. Plan to use those resources to support the essential services.
3. Identify all sectors, businesses, and organizations that will need to develop Continuity of Operations Plans.
4. Convene the municipal leadership team and any other individuals involved to create the municipal Continuity of Operations Plan. The group can use the following instructions as a guide to create this plan.

HOW TO DEVELOP A CONTINUITY OF OPERATIONS PLAN

Each organization (including sectors and businesses) identified in step 3 above should take the following steps to create a Continuity of Operations Plan:

1. Use Tool 3, *Pandemic Health Impact Projection Tool* to estimate how many people in the organization will likely get sick, and how many will die during a pandemic. **Note:** In the first yellow box labeled "Enter target population here," enter the name of the organization. In the second yellow box labeled "Enter population size here," enter the number of employees in the organization (rather than the total population of the municipality).

   Pay attention to the numbers of ***cases*** during the ***peak weeks.*** This is the number of employees that would be expected to get sick during the peak weeks of the wave. However, there will be other employees who are absent from work because they are needed to care for sick family members, provide child care, or are afraid to come to work. Therefore, the total absentee rate is expected to be somewhat higher than the rate of sick employees. It is recommended that organizations base their plans on a severe pandemic (category 5). It is better to prepare for a worst-case scenario than to be underprepared. If the organization plans to continue services during the worst week, it should be able to continue them throughout the long duration of the pandemic.

2. Using Handout 1, identify what the organization needs to maintain each essential service it provides:
   A. Determine how many additional workers are needed to fill in for essential workers.
   B. Discuss where substitute employees will come from (e.g., non-essential workers or volunteers). Also, consider the following possibilities for maintaining essential services during times of high ***absenteeism***: adjusting numbers of staff, adjusting shift lengths, alternate work schedules, and alternate work sites.
   C. Find out what systems/supplies/equipment are needed.
3. Determine who will be in charge when leaders are absent. Using the first part of Handout 2, identify essential ***authorities*** for the organization and at least two back-up personnel for each one.
4. In the second part of Handout 2, list all essential positions/functions within the organization, and identify at least two back-up people for each one.
5. Prioritize all essential people, material, and support. Create a list of essential workers who will need priority access to any medications, ***personal protective equipment***, gasoline, or other resources.
6. Make a list of facilities, vital records (including financial records and confidential records), materials, and other resources that need to be protected.
   A. Make a plan for protecting these resources. For example, police or military support might be needed to prevent looting or other hostilities that may result from the lack of essential goods during a pandemic.
   B. For vital records, identify the minimum set of records that must be maintained and available, and train sufficient personnel on how to access, store, and maintain these documents.

Authority: A specific responsibility or task assigned to an individual. For example, the authority to close a business, the authority to make decisions on behalf of an organization or government, or the authority to implement policies or safety measures.

OTHER PREPAREDNESS STEPS

Once the Continuity of Operations Plan is developed, take the following steps:

1. Train employees in the following areas:
   A. How to implement the organization's Continuity of Operations Plan
   B. Ways to develop personal back-up plans for transportation, family needs, etc
   C. How to keep themselves healthy at work
   D. The importance of social distancing measures, including voluntary quarantine and isolation and working from home (For more information, see Tool 5, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality.*)
   E. Repeat this training as often as needed to ensure the workforce is prepared.
2. Train back-up personnel in skills needed to provide essential functions for which they have been assigned.
3. If possible, begin to stock up on supplies and spare parts.
4. Develop a set of policies and plans to re-open schools, businesses, and resume non-essential services and functions.

ESSENTIAL SERVICES

Priority	Essential service	Number of additional workers needed	Sources of back-up personnel	Systems and equipment needed
1	Example: Staffing of Health Posts		Nongovernmental organizations, universities, academic training programs, retired healthcare workers, volunteers	Vehicles, gasoline, protective equipment, medical supplies
2	Example: Police		Private-sector security forces	Vehicles, gasoline, protective equipment, ammunition
3				
4				
5				
6				
7				

DELEGATION OF AUTHORITY AND IDENTIFICATION OF BACK-UP PERSONNEL

How to use this table:

- *In the "Authority" column, list all essential authorities for your organization; then identify at least two back-up people for each authority.*
- *In the "Position/Function" column, list all the essential functions of your organization; then identify at least two back-up people for each function. In this section, identify individuals by role rather than by name (e.g., Deputy Director, rather than John Smith).*
- *For each back-up person, provide the person's name and contact information.*
- *Update contact information on a regular basis.*
- *Add more rows as needed.*

Authority	Role or person with responsibility	First back-up person	Second back-up person
Example: Activate emergency plan	Name: Telephone: Email:	Name: Telephone: Email:	Name: Telephone: Email:
Example: Create laws			
Example: Close a business			
Position/Function	**Currently in position**	**First back-up person**	**Second back-up person**
Example: Payroll			
Example: Utility repair			
Example: Computer repair			

SOURCES

- FEMA *(U.S. Federal Emergency Management Agency). 2006. Pandemic influenza continuity of operations (COOP) annex template instructions.* http://www.fema.gov/pdf/government/coop/influenza_coop_annex.pdf
- Government of New Zealand. 2005. *Influenza pandemic planning: Business continuity planning guide*. http://www.med.govt.nz/upload/27552/planning-guide.pdf
- Ireland Department of Enterprise, Trade, and Employment; Enterprise Ireland; Forfás; and IDA Ireland. n.d. *Business continuity planning – responding to an influenza pandemic*. http://www.entemp.ie/publications/corporate/2007/flupanreportpart1.pdf
- Rasmussen, M., L. Koetzle, J.A. Mulligan, and S. Bernhardt. 2006. *Preparing your business for the impact of a bird flu pandemic.* Cambridge, MA: Forrester Research, Inc.
- U.S. Department of Health and Human Services and CDC (Centers for Disease Control and Prevention). 2005. *Business pandemic influenza planning checklist.* http://pandemicflu.gov/plan/workplaceplanning/businesschecklist.html
- U.S. Department of Homeland Security. 2006. *Pandemic influenza preparedness, response, and recovery: Guide for critical infrastructure and key resources*. http://www.pandemicflu.gov/plan/pdf/cikrpandemicinfluenzaguide.pdf

TOOL 17

VOLUNTEER COORDINATION

PREPAREDNESS RESPONSE RECOVERY

This tool will help you to:

- Identify private organizations and businesses that volunteer services in preparation for, and during, a severe pandemic
- Identify lead volunteers and backups for key response areas during a severe pandemic
- Recruit volunteer teams to assist with specific activities to support pandemic preparedness and response

Who will implement this tool:

- The ***municipal leadership team***
- Other municipal staff dedicated to community outreach
- Representatives from non-governmental organizations or other community outreach organizations

OVERVIEW

Unified communities who recognize the value of collectively and individually helping each other will have a greater chance of surviving any disaster. Although the threat of an influenza pandemic may not seem real, when it strikes it can move quickly from one stage to the next. *The sooner a community prepares, the better able it will be to respond.* This tool will help the municipal leadership team organize unified volunteer systems that build community resilience (the ability to manage and bounce back from a shock) before the pandemic arrives, and fill in gaps that are likely to occur if your municipality's workforce is overwhelmed by the effects of a severe pandemic.

> During the 1918–1919 pandemic, community volunteers such as teachers and other persons who were out of work (due to the effects of the pandemic) were essential to helping with social distancing measures. They also helped document who was sick and eased the burden on overflowing healthcare facilities. Control of a modern pandemic will benefit from a similar volunteer system because local government services may be unable to manage on their own.

ORGANIZING VOLUNTEERS TO REDUCE DEATH AND SUFFERING DURING A PANDEMIC

When we think about building community resilience through a volunteer system, it is helpful to consider three types of volunteer support that can strengthen pandemic preparedness and response efforts.

1. *Services* offered by local organizations and private businesses. For example, providing space for food storage, holding community awareness meetings, providing training for warehouse management, or helping to identify at-risk households. What else can you think of?
2. *Volunteer manpower*. For example, posting flyers, delivering food to isolated households, assisting with home-healthcare, or organizing at-home activities for children when schools are closed. What else can you think of?
3. *Personal resources*. For example, trucks, water or food storage containers, cell phones, water filters, or ham/amateur radios. What else can you think of?

If the pandemic virus has already arrived in your municipality, DO NOT use any communication method that gathers large groups of people together.

Instead, carry out the tasks in steps 1–4 as quickly as possible, respecting ***social distancing*** practices (i.e. communicating by phone tree, email lists, text message, individual messenger, or amateur/ham radios).

This highlights the importance of organizing volunteer meetings sooner rather than later.

STEP 1: IDENTIFY POTENTIAL ORGANIZATIONS AND BUSINESSES THAT COULD VOLUNTEER THEIR SERVICES FOR PANDEMIC PREPAREDNESS AND RESPONSE

A. Organize a gathering of representatives from a wide variety of community organizations and private businesses. At the meeting, conduct an inventory of the services each group currently offers to the community.

B. As a group, think creatively about other services each business or organization might be able to offer *in preparation* for pandemic response. For example, an adult education center might be willing to provide meeting space for public education on pandemic preparedness; local storekeepers might be able to help the municipal leadership team identify households that are likely to run out of food during a severe pandemic.

C. As a group, think creatively about what other services each business or organization might offer *once the pandemic virus arrives* in your municipality in full force. For example, church groups might be willing to offer grief counseling; businesses whose normal commerce has been disrupted might be willing to use their transportation resources to help deliver food, fuel, and other basic necessities.

D. Once the inventory of services is complete, ask people to determine what type of additional resources or training their business or organization may need in order to provide the newly identified preparedness and response services. For example, a small child care center (that will likely close during a severe pandemic) may be willing to offer space for emergency food storage, but may not know how to properly inventory, store, and ration large quantities of food.

E. The chart on the following page provides a sample of how you can organize this information (a blank chart for your own information is included as Handout 1).

Once the pandemic virus reaches your community, focus group discussions will be more difficult. The best methods to gather this information would be through telephone, email, or text message. If focus groups are held, they should include no more than 3 to 4 people and should be carefully planned using social distancing measures and preferably take place outside. Once again, this highlights the importance of organizing volunteer meetings as soon as possible.

STEP 2: IDENTIFY GROUPS THAT MAY BE EXCLUDED FROM SERVICES

Carefully consider each of the services identified in the inventory and try to determine groups in your community that may be excluded from these services. For example, using the sample inventory chart, consider the newly identified services offered by the ABC adult education center (Row 1). This organization has agreed to offer awareness classes on how to prepare for the impact of a pandemic and also to assist households in determining how much food they will need to store. Current students and members of the workforce that pass by this center will know about the availability of these services and will have access to them, but what about widows, the elderly, the disabled, orphans, or people with no transportation?

Session II of Tool 6, *Training for Community Health Responders* provides an easy-to-follow mapping technique that can help communities determine who they need to reach, and where they can find them. Tool 9, *Identification of People Most at Risk of Food Insecurity*, provides in-depth guidance on this same topic.

For each excluded group, hold ***focus group discussions*** to determine how volunteers can provide better access to the services they will offer before, during, and after a pandemic.

SAMPLE INVENTORY OF COMMUNITY SERVICES AND BUSINESSES

Organization or Business	Services currently offered	What other services could this group offer in preparation for a pandemic?	What other services could this group offer during a pandemic?	What type of additional training or resources does the organization need to provide these services?
ABC adult education center	Provides adult education and serves as computer training center	Provide classes and flyers to spread public education messages on prevention and preparation Help households to calculate the amount of food they will need to store for 12 weeks	Serve as communication center	Supplies to reproduce education messages Training on key food security and health messages
Commercial cotton farms	Grows and delivers cotton for export	Donate storage facility for community food stockpiling Acquire and transport needed community items during trips to district center	Use trucks for delivering food or fuel	Training on food stock storage and tracking Training on how to manage first-in, first-out inventories
Local merchants and storekeepers	Sells food and supplies	Inform municipal leadership team about households likely to run out of food Provide area for community food storage Train others in food inventory management Spread messages about food shortages in a pandemic	Participate as barter or fair trade shops Become distribution centers for rations	Training on the food security impact of a pandemic Awareness training on the consequences of hoarding
Church groups	Provides social support Mobilizes support for the poor	Identify poor households Conduct household preparedness education Provide conflict management training for households	Reduce fear and panic Conduct surveillance of illness Provide grief counseling Distribute food to remote households	Training on food management and distribution Grief and conflict management training Fuel and vehicle; horse and cart; other forms of delivery vehicles

Ensure that all lead volunteers are coordinating with health leaders and are up to date on all safety measures regarding the spread of the disease, and that specific actions have been taken to protect their health, such as providing them with masks.

Tool 6, *Training for Community Health Responders* and Tool 4, *Non-Pharmaceutical Interventions (NPIs): Actions to Limit the Spread of the Pandemic in Your Municipality* offer detailed guidance on safety measures.

STEP 3: RECRUIT LEAD COMMUNITY VOLUNTEERS

The next step will be to recruit leaders from among the community volunteers, identify their roles and responsibilities, and ensure that they are provided with any training necessary to carry out their work.

A. As you did in Step 1, call a gathering of representatives from various organizations and private businesses in the community. Potential lead volunteers may include, but are not limited to, representatives from the following groups:
   - Business associations
   - Local merchants and traders
   - Community-based and religious organizations
   - School teachers
   - Women's groups
   - Youth groups
   - Municipal government agencies
   - Humanitarian and development nongovernmental organizations
   - Health centers and hospitals
   - Ranch or farmer associations
   - Local media
   - Entertainers

B. Within each group, identify one person who can participate as a lead volunteer during the pandemic and act as the contact person for response efforts. Given that one in three persons may become ill from the virus, it is essential to have backup alternates. Identify two alternates who can take on the tasks if the lead volunteer becomes ill.

The table on the following page identifies some sample roles and responsibilities for lead community volunteers. These roles and responsibilities are based on information found in many of the other tools in this kit. You may wish to make your own table based on the needs of your municipality (a blank form is provided on page 6). If so, be sure to provide space to record the names of lead volunteers and backup alternates as well as contact information.

Some of the key responsibilities may require training, such as managing food inventories, public service maintenance, or effective risk communication. Identify the key responsibilities that will require training.

Many tools in this kit provide how-to information on various tasks listed in the sample chart. Suggestions for where to go for more information are provided in the table under the key responsibilities.

SAMPLE ROLES AND RESPONSIBILITIES OF LEAD COMMUNITY VOLUNTEERS

(This table does not address the responsibilities of health volunteers. For more information, see Tool 6, *Training for Community Health Responders*.)

Role	Area Leader	Supplies Manager	Communications Leader	Public Educator	Mental Health Monitor	Essential Services Provider
Person responsible/ contact information						
Alternate person(s)/ contact information						
Sample responsibilities Highlight any areas that will require training	Maintain communication with the municipal leadership team Manage neighborhood surveillance and documentation Establish new areas that need specific leadership, such as mental health Maintain contact with the medical authorities	Help coordinate the locations of possible emergency food storage warehouses Coordinate pickup of donated food supplies Coordinate storage of area refrigerators, generators, propane tanks Coordinate barter network systems that track goods available for trade	If phone system fails, maintain ham/ amateur radio Coordinate foot, bicycle, or horseback messengers (*be sure they respect social-distancing measures*)	Maintain clear, consistent, and up-to-date education directed toward the public Organize at-home school activities for area children	Monitor mental health of response workers and community members Organize mental health treatment for those in need Work with public educators to inform community about maintaining mental health	Recruit and organize volunteers for essential service maintenance such as mechanics, plumbers, electricians, and computer technicians Work with volunteer coordinator and communications leader to assist the community as necessary
Person responsible for providing training						
Tools in this kit that can offer guidance	15: Disaster Management in a Pandemic	7: Food Security in a Pandemic	12: Fundamentals of Communication During Crises and Emergencies	10: Household Food Security Preparedness	19: Recovery and Resilience	16: Maintenance of Essential Services

ROLES AND RESPONSIBILITIES OF LEAD COMMUNITY VOLUNTEERS

(This table does not address the responsibilities of health volunteers. For more information, see Tool 6, *Training for Community Health Responders*.)

Role	Area Leader	Supplies Manager	Communications Leader	Public Educator	Mental Health Monitor	Essential Services Provider
Person responsible/ contact information						
Alternate person(s)/ contact information						
Sample responsibilities Highlight any areas that will require training						
Person responsible for providing training						
Tools in this kit that can offer guidance	15: Disaster Management in a Pandemic	7: Food Security in a Pandemic	12: Fundamentals of Communication During Crises and Emergencies	10: Household Food Security Preparedness	19: Recovery and Resilience	16: Maintenance of Essential Services

STEP 4: RECRUIT VOLUNTEER TEAMS TO ASSIST WITH SPECIFIC ACTIVITIES

Many volunteer activities are not complicated nor do they require specialized expertise. Together the municipal leadership team and the lead community volunteers will recruit people who have an interest in improving the chances of pandemic survival for the community as a whole. These groups of volunteers will be organized to help in specific pandemic preparedness and response areas.

A. Create a widespread public awareness campaign. Organize public meetings, radio and TV interviews or skits, bulletins, and other regular communications through which community members have the opportunity to learn about how volunteer efforts can help protect the community from the impact of a pandemic and reduce death and suffering. Stress the importance of building a unified community that collectively and individually helps each other.

B. Through the public awareness campaigns, encourage community members to think creatively about how they can contribute to the strength of the whole community to survive an influenza pandemic. This could consist of posters that are placed throughout the community, or perhaps radio or TV hosts brainstorming about all the available assets and skills that people may be able to contribute. For example:

- A truck for transporting supplies
- Past medical training that can be put to use in home-based healthcare
- Math skills to help people figure out how much food they need
- A strong and trusted community reputation to share important health and food security messages
- Social skills to help with identifying households most at risk
- Carpentry skills to help build food storage spaces
- Spare lumber for food storage spaces or as a donation for cooking fuel

(For more information, see Tool 14, *News Media Communication*; Tool 10, *Household Food Security Preparedness*; Tool 11, *Distribution of Emergency Food During an Influenza Pandemic*; Tool 9, *Identification of People Most at Risk of Food Insecurity*; and Tool 6, *Training for Community Health Responders*.

C. Establish volunteer recruitment centers where community members can sign up to assist with efforts that take place both before and during the pandemic. At the centers, maintain an updated contact list that includes:

- Contact information: phone, home address, email address
- The responsibilities or resources the volunteer can offer with no training
- The responsibilities the volunteer is willing to carry out if he or she receives training

D. Provide all volunteers with information about their risk of contracting pandemic influenza and the infection control behaviors that they can use to minimize this risk. (For more information, see Session III of Tool 6, *Training for Community Health Responders*.)

E. Provide volunteers that will be working with the public identification that shows they are assisting the municipal leadership team.

Remember! Protecting the health of your volunteers is critical. If the pandemic virus has broken out in your community, make sure each volunteer is up to date on safety measures to limit the spread of the disease.

F. Stay in close contact with the lead volunteers to determine:

- What type of help is most needed in each response area?
- How many volunteers are needed?
- How soon is their help needed?
- Do volunteers need any specific training before they begin to help?

WHAT TYPES OF VOLUNTEERS WILL BE MOST NEEDED?

Highly desired volunteers include, but are not limited to:

- Retired healthcare personnel or people with medical training to provide home-based care to households when all members are sick, or to provide training in home-based healthcare to the community before the pandemic arrives
- People who have recovered from the influenza strain (and who are presumably immune) to deliver food or provide home-based healthcare to needy households during the pandemic
- Skilled laborers to help with the continuity of public services, such as water and sanitation, during the pandemic, or to help households and communities construct food storage spaces during the preparation phase
- Mental health and spiritual counselors to provide grief counseling during and after the pandemic, to help spread messages that will reduce public fear and panic during the pandemic, or to provide conflict resolution workshops with the community before the pandemic
- People with disaster response training to provide medical assistance to households; to transport dead bodies; to transport food, fuel, or water; or to contribute to risk and crisis communication efforts
- People who have trucks and vans that can help meet transportation needs

WHAT TYPES OF ACTIVITIES CAN VOLUNTEERS HELP WITH?

There are few limits to the type of assistance that volunteers can offer. The key will be to define the strengths and available assets of each volunteer and then find activities which maximize their resources in a way that helps the entire community to manage a pandemic response. The chart on the following page identifies some 'pre-pandemic' and 'during the pandemic' volunteer activities. Use this list as a jumping-off point during community meetings, but do not limit actions to those that are listed. By envisioning numerous potential activities that could strengthen the community as a whole, people can be motivated to get involved and work together on common goals.

SAMPLE VOLUNTEER ACTIVITIES

Pre-Pandemic	During the Pandemic
• Alerting area leaders of households that may be at high risk of food insecurity during a pandemic • Translating awareness materials into local languages • Assisting with an inventory of private food storage spaces • Spreading awareness messages about how a pandemic might impact food security and livelihoods that: - Encourage households to store foods that will not spoil - Spread messages about the consequences of hoarding - Discuss the importance of proper nutrition to keep immune systems strong • Helping households figure out how much food they will need to store to maintain nutritional needs during a pandemic wave • Helping households to construct food storage facilities • Transporting donated supplies from other regions • Gathering donations of narrow-mouthed and covered food-product containers to donate to households that may not have adequate means for storing water • Helping households to develop savings plans • Helping households plant gardens; sharing information on growing short-cycle crops • Helping households make plans for barter exchanges	• Spreading crisis communication messages through ham/amateur radio channels, posting of flyers, cell phone texting, phone trees, email lists, or person to person while respecting social distancing measures • Providing home-based healthcare • Delivering food rations to isolated or sick households • Delivering nutrient-rich therapeutic foods to households with malnourished children • Becoming a barter coordinator; using cell phone, email, or messengers to help households make barter connections • Delivering fuel and water • Helping area leaders manage neighborhood surveillance and documentation • Connecting people with medical and health training to households with sick members • Organizing at-home school activities for children • Caring for children whose parents are ill or have died • Distributing essential pandemic supplies • Providing security at food distribution sites • Offering psychosocial support and grief counseling • Transporting dead bodies

What else might be helpful?

INVENTORY OF COMMUNITY SERVICES AND BUSINESSES

Organization or Business	Services that this group currently offers	What other services could this group offer in preparation for a pandemic?	What other services could this group offer during a pandemic?	What type of additional training or resources does the organization need to provide these services?

TOOL 18

MANAGEMENT OF DEAD BODIES

This tool will help you to:

- Describe key considerations for planning the disposal of dead bodies during an influenza pandemic
- Provide best practices in handling dead bodies

The guide is not meant to be comprehensive. It is designed to give municipal leaders an overview of what is required in the event that an influenza pandemic results in the deaths of a large number of people in a short period of time. These guidelines may also be useful during other types of disaster.

For a more comprehensive manual refer to PAHO's *Management of Dead Bodies after Disasters: a Field Manual for First Responders* at www.paho.org/disasters. (In Spanish at www.paho.org/spanish/dd/ped/GestionCadaveres.pdf or in English at www.paho.org/english/dd/ped/deadbodiesfieldmanual.htm)

Who will implement this tool:

- National disaster agencies/offices
- The mayor
- Civil protection agencies
- Municipal police
- The army
- Non-governmental organizations (NGOs)

Where national plans for managing dead bodies in disasters exist, the role of municipal authorities will be defined by those plans. We strongly recommend that municipal authorities refer to the national plan and consult with the national disaster agency for local information and resources.

Where national plans are not in place or simply not available, a municipal agency or authority such as the governor, police chief, mayor, or the military, may serve as the local coordinator with responsibility for managing bodies. In this case, this tool can provide key considerations to keep in mind when managing a large number of fatalities.

Key Facts

- Except in cases of hemorrhagic fevers (Ebola, Marburg, etc.) and Cholera, *dead bodies are generally not infectious*. Only the lungs of pandemic influenza patients, if handled during an autopsy, can be infectious. Otherwise, cadavers do not transmit disease. It is a common myth that persons who have died of a communicable disease should be cremated, but this is not true. Cremation is a matter of cultural choice and available resources.
- Most people who die in an influenza pandemic will be at a health facility or at home, reducing the number of bodies that may be unidentified.

WHY THIS IS A SENSITIVE ISSUE

This tool outlines the key steps in managing cadavers. In a pandemic, we must anticipate catastrophic levels of death in the municipality, region, and country. When dealing with the dead, a municipal leader's main role will be to coordinate with other agencies that will carry out the actual retrieval, identification, storage, and disposal of dead bodies. Municipal leaders must also manage public information and messages, and should establish partnerships with key agencies—such as the police, army, or civil protection agency—in advance, before the situation becomes critical.

The dead and their bereaved should be respected at all times. Cultural and religious needs should be observed and normal procedures for mourning and burial allowed to the extent possible during a pandemic.

Consider the use of local crisis intervention teams or psychosocial support teams and whether they can be adapted to the needs and culture of the community. Consider also the context of the pandemic and its affect on local coping mechanisms. (For more information, see Tool 19, *Recovery and Resilience*.)

HOW TO COORDINATE THE DISPOSAL OF BODIES

If the pandemic is severe and there are many deaths, there will be a need to coordinate many tasks, which will include:

- **Managing information.** There will be a need to maintain information on available human resources and supplies, contact information for trained teams, and a database of the number of dead and their identities. Municipal leaders may be contacted with inquiries about specific persons; an individual or team should be assigned to manage such information. (See "Frequently Asked Questions" in the PAHO field manual, *Management of Dead Bodies after Disasters: a Field Manual for First Responders*.)
- **Assigning responsibility.** Leaders should appoint people to handle identification of the deceased; public information and communication; recovery, storage, and burial/cremation of bodies; support for families; and logistics (timely location and provision of needed supplies and resources).
- **Identifying resources.** Locate and arrange for the use of storage facilities and supplies before the pandemic arrives. Items you will need include body bags, protective clothing, tools, and communication equipment. Develop and maintain a roster of staff and volunteers.
- **Implementing an action plan.** Arrange for the management of dead bodies in collaboration with other agencies in your district or community. See the table at the end of this tool for ideas on how to develop a simple plan.
- **Disseminating information.** Leaders must provide accurate information to families and the community regarding the identification of bodies. Determine procedures for releasing names of the deceased, with controlled media access. (For more information, see Tools 12–14, in the *Crisis and Emergency Risk Communications* section of this toolkit.) Establish a location or facility, prior to any emergency if possible, where the public can inquire about missing/deceased persons. The location should be separated from the main hospitals or treatment centers and staffed by people with the resources to provide such information. Use radio and other news media and local churches to let the community know where to go.

LOGISTICS

Logistics is the process of getting the correct supplies, equipment, and people to the correct place at the correct time. A logistics leader or team should be appointed to ensure smooth implementation of any plan.

Key logistical responsibilities to plan for include:

- Transport of bodies from place of death to mortuary, storage facility, or burial site
- Transport of workers to work sites
- Secure communications equipment for field workers, site managers, and the headquarters or coordinating office
- Supplies and other resources, including coffins, body bags, labels, dry ice, portable sources of electricity, and water
- Assistance from local and regional technical specialists such as morticians and funeral home directors
- Equipment for the maintenance of records, such as log books, inventory lists, and cameras (to photograph unidentified bodies)

BODY RECOVERY

Many different people or groups will be involved in body recovery. This process must be done rapidly to correctly identify the dead and reduce the mental stress on the survivors.

Bodies should be placed in body bags if available; plastic sheets, shrouds, or bed sheets may also be used. Identification of the deceased, and the place and date of recovery (removal) should be recorded, if known.

CONTROL MEASURES[1]

The World Health Organization (WHO) has developed some general cholera management measures to reduce the possibility of disease transmission, which can also be used for an influenza pandemic. These are:

- Disinfect the body (cadaver) with 0.5% bleach solution. (For dealing with influenza victims, disinfection with soap and water will be sufficient.)
- Reduce physical contact by family members.
- Wash hands with soap and water after touching a corpse.
- Disinfect the equipment and bedding.

STORAGE

While refrigerated storage between 2 and 4 degrees Celsius is an ideal, it is not always feasible to find existing facilities large enough to accommodate all those who have died. As an option, refrigerated sea-land cargo containers have been suggested and some communities have made arrangements to purchase or lease these. If such an option is not possible, any large, well-ventilated space, such as a warehouse or empty building, can serve as a temporary mortuary. If refrigeration is not available, temporary facilities should be set up away from residential areas but easily accessible to vehicles and the public.

Other considerations for storage of bodies:

- Storage space should be refrigerated to 2 to 4 degrees Celsius, if possible.
- Dry ice (the solid form of carbon dioxide) may be used. Regular ice (frozen water) should be avoided due to problems with transportation, storage, disposal, and sanitation.
- Bodies should be placed in a body bag or wrapped in a sheet before storage.
- Waterproof labels with a unique identification numbers should be used.
- Temporary burial may be necessary for immediate storage if other means are not available.

IDENTIFICATION

Most of the people who die in a pandemic are likely to die at home or in a health care facility. It is unlikely that there will be large numbers of people whose identities cannot be easily confirmed (as in the case of a massive landslide or tsunami).

A lead agency or individual such as the local governor, police chief, military commander, or mayor should be assigned full authority over the management of dead bodies. A team will be required to assist in identifying the deceased, securing the remains, and notifying family or friends. The team may include members from law enforcement, forensic sciences, health authorities, and social services.

[1] World Health Organization. Cholera Outbreak. Assessing the Outbreak Response and Improving Preparedness (2004)

The legal rights of the dead, law enforcement acts, Interpol Resolution AGN/65/res/13 (1996), humanitarian laws, and other ethical and social norms should be taken into consideration.

For more detail on the identification of dead bodies, refer to PAHO's *Management of Dead Bodies after Disasters: a Field Manual for First Responders*, which has examples of forms for the description of bodies, sequential numbering, and inventory. (This manual is available online at www.paho.org/disasters or www.paho.org/english/dd/ped/deadbodies_epidemics.htm)

BURIAL

Although burial is clearly the expected method for disposal of bodies in the region, the location of burial sites needs to be considered carefully. When choosing a site, consider the soil conditions, water table level, and space. Burial sites should be at least 200 meters away from water sources such as streams, lakes, springs, waterfalls, beaches, and shorelines.

PLANNING

The National Influenza Pandemic Planning Committees should have planning figures that may be useful in predicting the number of dead based on the strength of the pandemic influenza virus. Tool 3, *Pandemic Health Impact Projection Tool*, can also generate estimates of the pandemic's likely toll on the municipality. These estimates can help agencies plan for the management of dead bodies in such an event.

The pandemic will cause many people to get sick and miss work or stay at home to care for family members. This will reduce the number of people available to assist in carrying out tasks. Alternative workers should be secured through volunteer groups and trained in what to do in case of pandemic.

Supply chains for all types of goods may be temporarily interrupted in a pandemic. The municipality should consider stockpiling equipment and other supplies necessary for managing a large number of bodies over a short period.

CONCLUSION

In an influenza pandemic, the care and burial of bodies is important, but leaders will need to manage resources carefully. They must be sure to prioritize interventions aimed at reducing transmission in order to save lives and to provide care for those in need.

Respect for the dead and the bereaved should be maintained and local customs honored. All communities have systems for interment and disposal of remains, and it is important to integrate these into pandemic planning.

PLAN OF ACTION TEMPLATE

This template can be used to help in developing any type of plan.

Mission:				
Goal # _____:				
Objectives:	Plan of Action			
	Strategies (How?)	Resources needed (What?)	Undertaken by (Who?)	Completion date (When?)
Evaluation criteria				

Additional information on how to make a plan of action can be found on
www.publicachievement.org/pdf/Coaches/Creating%20the%20Project/ActionPlan.pdf
www.bonner.org/resources/modules/modules_pdf/BonCurActionPlanning.pdf

SOURCES

PAHO/WHO. *Management of Dead Bodies after Disasters: a Field Manual for First Responders*. www.paho.org/disasters. (In Spanish at www.paho.org/spanish/dd/ped/GestionCadaveres.pdf or in English at www.paho.org/english/dd/ped/deadbodiesfieldmanual.htm)

TOOL 19

RECOVERY AND RESILIENCE

RECOVERY

This tool will help you to:

- Determine which actions will get life and commerce back to normal as soon as possible
- Improve pre-disaster conditions and build resilience to future risks

Who will implement this tool:

- The mayor
- The ***municipal leadership team***
- Relevant staff from the following municipal sectors:
  - Family Welfare/ Food Security
  - Communication
  - Health
  - Education
  - Agriculture and Natural Resources

  In collaboration with the following groups:
  - Community-based organizations
  - Religious and spiritual support organizations
  - Food wholesalers and retail markets
  - Humanitarian and development non-governmental organizations
  - National emergency management agencies

OVERVIEW

A moderate pandemic may impact life and commerce only for the duration of the pandemic waves and may actually strengthen social networks as people come to each other's assistance. A more severe pandemic may have caused many deaths, drastic inflation, unemployment, food crisis, and a collapse of social networks. Recovery from a series of severe pandemic waves will require hard work and persistence on the part of local leaders and community members.

STEPS TO RECOVERY AND RESILIENCE

Pandemic recovery programs should:

- Reduce fear and reestablish a sense of security
- Reassess vulnerability and strengthen and sustain relief activities
- Get life and commerce back to normal
- Improve on pre-disaster living conditions and overall well-being by linking relief activities to longer-term work that addresses the underlying causes of food shortages and poverty

After several severe pandemic waves, the tendency may be to analyze the situation simply in terms of needs and deficiencies, because both will certainly be immense. Yet a municipality must rely on an inventory of remaining assets and capacities if it is to find the power to regenerate itself. Initially, communities should determine what they can do immediately, without external assistance, using all existing skills, resources, and technical experience. Some recovery efforts may require more resources than a municipality has available. The team must then be prepared to communicate the priorities of the municipality to national and regional government, international agencies, and other sources of external support, once assistance becomes available.

STAGES OF RECOVERY EFFORTS

Pandemic recovery efforts occur in stages. They cover the critical middle ground between disaster response and improving long-term well-being for at-risk populations. Some activities can be undertaken immediately following a pandemic, once health experts have declared that social distancing is no longer needed. These activities will reduce fear and reestablish a sense of calm. Examples are reopening schools and businesses and making sure that short-term income and basic necessities are available.

There are other recovery activities that can take place once a sense of normalcy and security begins to return to the municipality. The goal of these efforts is to strengthen the resiliency of households and communities so that they are better able

to manage future shocks. These efforts include rebuilding household and community assets, and restoring local institutions that have been overwhelmed by the pandemic, particularly health facilities.

STAGE 1. REESTABLISH A SENSE OF SECURITY

Reduce public fear and support the community's grieving process

Psychosocial support is the ongoing process of meeting emotional, social, mental, and spiritual needs, all of which are considered essential elements of meaningful and positive human development. (FHI, 2006)

The first stage of recovery involves reducing public fear and supporting the grieving process. The psychological impact of the pandemic on survivors may be huge; psychosocial support will be extremely important to restore a sense of calm. Concerns that people have about future outbreaks, about their ability to get life back to normal, or about other worries must be identified, recognized, and dealt with as soon as possible. Immediately after the pandemic has run its course, the team should begin activities to reduce fear and reestablish a sense of security.

Gender, age, and previous medical conditions may influence the impact the pandemic has on families and individuals and should be taken into account by those providing psychosocial support. Homes will likely be the place where most people have suffered. Women—often the primary caregivers for household illness—may need additional grief and recovery counseling. Schools will also play an important role in this process by helping children recover from a very frightening experience and move forward.

With municipal staff from the education and communication sector, and any available resources or direction from national level government, develop a public education and communications plan. Television, radio, and newspapers can help the community recover by sharing accurate information and dispelling rumors. The public should be made aware of normal responses to fear, uncertainty, survivor guilt, trauma, and disasters.

Organize community meetings to discuss the end of the pandemic and to assure people that life can get back to normal. To aid in the grieving process, memorials and candlelight vigils can be held for those that have passed away. During upcoming cultural events and festivals, the dead can be remembered and celebrated, if this is an acceptable tradition. These outlets and venues should also be used to provide sources of further information and help. (For more information, see Tool 12, *Fundamentals of Communication During Crises and Emergencies*, Tool 14, *News Media Communication*, and Tool 13, *Communications Plan Implementation for a Severe Pandemic*.)

Reopen public places

Once health experts and national authorities have declared that social distancing and isolation measures are no longer needed, the team should encourage schools, community centers, businesses, and markets to reopen—even if they are short-staffed or have limited supplies. This will help people feel that things are getting back to normal. Depending on the severity of the disruption in trade, many smaller businesses may not be able to reopen immediately and may need assistance to recuperate. Options for reviving economic activities and markets are discussed in the next section.

Reintroduce joy

Bringing joy and laughter back to the community can be an important contributor to coping with losses and restoring a sense of normalcy. Consider organizing recreational activities, cultural events, or music festivals in order to bring people together. Give them the opportunity to talk about their experiences and promote supportive relationships.

STAGE 2. LINKING RELIEF AND RECOVERY

Once initial fear is reduced and a sense of security begins to return, the team can concentrate on municipal programs that will link relief efforts to recovery. Well-planned influenza pandemic recovery programs address not only the immediate recovery situation but also the underlying causes of hunger and suffering among affected populations. The goal of these efforts is to strengthen the resiliency of households and communities so that they are more able to manage future shocks.

This next stage of recovery involves three steps. (1) First, identify the people in the municipality that have suffered the most and will have trouble getting back on their feet. Then simultaneously (2) make sure that short-term income and basic necessities are available for these people, and (3) link short-term relief efforts to longer-term strategies for building resources and skills that will reduce the impact of future disasters. Depending on how severely the pandemic affected the municipality, recovery operations may continue for up to two years.

STEP 1. REASSESS VULNERABILITY

The first step in designing recovery programs is to identify those who have been most affected by the pandemic and those that will have the most trouble getting back on their feet. Target immediate assistance to these groups. If the team used Tool 9, *Identification of People Most at Risk of Food Insecurity* before the pandemic arrived, update that information now with a follow-up assessment to help determine who has suffered most, and who has been more resilient to the pandemic's impact. If the team was not able to undertake this assessment before the pandemic, now is the time to gather that information.

Determine the coping strategies that people have used in response to the pandemic. Coping strategies refer to the ways that individuals, households, and communities combine their skills, knowledge, and resources to respond to a shock or disaster. These strategies can be positive or negative and investigating both types is important to understanding whether a situation is worsening, remaining the same, or improving. Awareness of coping strategies can help the team identify which households are in most need of recovery assistance, and it can increase understanding of how those who have managed fairly well through the pandemic have been able to do so. This last important point is often overlooked. By understanding successful coping strategies that have helped people survive, leaders are able to share this information with others that have not fared so well, helping them to be better prepared for future disasters. (For more information, see Tool 9, *Identification of People Most at Risk of Food Insecurity*.)

The chart on the following page gives examples of coping strategies that people might use in response to a severe influenza pandemic

POSITIVE	NEGATIVE
Planting a small garden with short-cycle crops during the first week of the pandemic, which provides vegetables for the household during the peak of the wave Organizing exchanges among neighbors to increase the variety of foods the household eats Gathering and preserving fruit found on common municipal property	Migrating away from home to distance themselves from an infected area, thereby losing jobs or leaving farms or businesses unattended. In urban areas where influenza rates are likely to be the highest due to large populations, there could be high rates of urban-rural migration as families migrate to live with rural relatives to escape the pandemic, thus exposing rural areas to the disease Reducing the quantity and quality of food consumed because food has not been available in the municipality or because it has been unaffordable

STEP 2. STRENGTHEN AND SUSTAIN RELIEF ACTIVITIES

Make sure short-term income and basic necessities are available. The next recovery step will be to help the groups of people that have been most affected to obtain short-term income and basic items such as water, food, shelter, medicines, and clothing. In addition to the information gathered in the assessments, encourage the community to participate in identifying people that should receive assistance. This establishes an open and participatory process.

Carefully consider what the municipality can do with its own resources and capacities to help those in need in the short term. Some of these recovery activities will be maintained for a short time (6 months or less), such as the response efforts used during the pandemic, and outlined in Tool 11, *Distribution of Emergency Food During a Pandemic*. Additional activities for consideration are listed below. The specific mix of activities should be tailored to the local context and based on the full participation of the municipality.

- Set up supplemental feeding centers (community kitchens, soup kitchens) for at-risk populations such as the elderly and children.
- Provide vouchers, stamps, or other alternative currency that can be used to purchase food in local markets. This will also help to stimulate local business.
- Continue to encourage home gardens as a means of improving diet diversity and to provide immediate access to low-cost foods. Supply seeds and technical assistance, if possible.
- Provide health, hygiene, and nutrition education.
- Organize food security recovery programs like food- or cash-for-work. This will free up money for food purchases. See Handout 1 for food-for-work/cash-for-work considerations.
- Provide cash-for-training (so people learn vocational and other life skills to enhance food and livelihood security).

STEP 3. GET LIFE AND COMMERCE BACK TO NORMAL

While some of the municipal staff works to identify and assist those that have suffered the most from the impact of the pandemic, other municipal staff—with community input—should identify what can be done with local resources and manpower to get life and commerce back to normal. An overarching objective will be to improve on pre-disaster living conditions and overall well-being. The municipal leadership team will want to link relief activities to longer-term work that addresses the underlying

causes of food shortages and poverty. All activities should focus on strengthening the resiliency of households and communities so that they are more able to manage future shocks.

To enhance the speed and appropriateness of recovery activities, make full use of the assets and capacities that already exist in the community. By building on the abilities of local households, the capacities of local associations, the strength of social networks, and the supportive functions of local institutions, the municipality can secure and restore income-generating opportunities and access to services that will ultimately build stronger, more sustainable communities. These communities will then be less vulnerable to future shocks, particularly those such as a pandemic that impact global market supplies.

A key objective of these efforts will be to revive economic activities and markets. Following a severe pandemic, trade can be reestablished through the rehabilitation of small and medium businesses. Due to expected high mortality rates, skills and business training, as well as other services that support the development of small businesses, will be critically needed. Vocational training programs can also serve to address the impact that mortality rates may have on staffing levels.

With the help of the community, brainstorm a list of all recovery options that might be relevant and effective in the municipality. The list of sample activities below offers some initial ideas. Some activities, such as reestablishing market linkages, may require external assistance. Separate the list into two groups: recovery options that can be done with local resources and manpower, and recovery options that require external assistance. This will help to identify what can be done right now, as well as help to prepare leaders to communicate the municipality's priorities to sources of external support, should assistance become available.

Sample Recovery Activities

- Strengthen or reestablish local markets and supply chains.
- Support efforts to reinstate or strengthen cross-border markets and food supply chains.
- Strengthen or reestablish transport of goods, medicines, and services.
- Offer skills training for immediate (self) employment; match job seekers to employment opportunities.
- Facilitate small loans for business activities in all sectors.
- Provide business training for new businesses.
- Support the formation of cooperatives.
- Facilitate start-up grants for vulnerable groups who face difficulties greater than the loss of productive assets (e.g., women who lost their husbands or main income earner).
- Provide access to alternative opportunities for earning income.
- Provide education and support for mothers, families, and communities on child health and hygiene, as well as feeding and care practices for infants and young children with influenza.
- Strengthen health service delivery systems; ensure equitable access to vaccines and other medications.

- Revitalize small-scale agriculture and animal husbandry.
- Introduce vocational training and improved agricultural technologies, including low-labor input technologies.
- Strengthen natural resource management (e.g., reforestation, water harvesting).
- Strengthen agricultural extension services.
- Advocate for national government solutions that help poor people manage risks.
- Support citizen awareness campaigns and communication and media efforts.

CONSIDERATIONS FOR CONDITIONAL TRANSFER ACTIVITIES (FOOD-FOR-WORK/CASH-FOR-WORK)

Conditional transfer activities generate income for those who are able and willing to work. The regional or national government may be able to provide more information on how these programs have been used in the country before.

Two of the most common types of conditional transfer programs are cash-for-work and food-for-work. Employment in public or community works programs provides income-earning opportunities and, at the same time, improves the living environment for pandemic-affected communities through building, rehabilitating, and maintaining needed community infrastructure. Both types of community works programs have the following benefits:

- Food-for-work/cash-for-work can help people retake control of their lives. They provide immediate work opportunities as well as a basis for longer-term employment by helping people learn new skills.
- The cash or food transfers help buffer food shortages that have resulted from market collapse, transportation problems, and reduced employment due to layoffs and illness.

Important factors to consider if the municipal leadership team decides to include food-for-work or cash-for-work as part of an influenza pandemic recovery program:

- Workers must be healthy enough to perform the activities.
- Transport costs to and from the work site must be provided.
- Communities should participate in the decisionmaking process and view the activity as something that creates a valuable community asset, such as tree planting on common property.

Although cash-for-work and food-for-work can be successful short-term measures, they do bring with them the inherent risk of creating dependency. In a post-pandemic situation, recovery efforts should shift out of these temporary transfer programs as quickly as possible and into activities designed to rebuild the economy and sustainable livelihoods.

Cash-for-work and food-for-work are compared and contrasted in the table below.

CONSIDERATIONS FOR FOOD-FOR-WORK AND CASH-FOR-WORK PROGRAMS

FOOD-FOR-WORK	CASH-FOR-WORK
Immediately following a pandemic, markets may be closed. Households will have limited access to markets, and food prices will increase, reducing food availability. Food-for-work can help municipalities meet food needs until markets stabilize. *Considerations* • In a post-influenza pandemic situation, the nutritional value of the food provided is critical as many workers will be recovering from illness. • Ration size and nutrient content must exceed the human energy expenditure required for the work activity pursued. • The food given out (food basket) should include traditional or popular foods if possible. (Consider local food culture.) • The self-targeting feature of food-for-work allows the most needy to contribute their labor to obtain food while helping to develop or maintain the community's infrastructure. • Food transfers are less susceptible to security problems for recipients than cash transfers; however, food is more susceptible to staff theft than cash. • Food-for-work may be a better choice than cash-for-work in communities where there is the risk of cash being spent on nonfood/nonessential items. • Obtaining enough food to give people may be difficult. • Storage facilities must be available. • Staff to manage food stocks must be available.	In many cases, food is not the most appropriate resource for recovery efforts. Cash-for-work can increase purchasing power and build local capacity by enhancing skill sets. *Considerations* • The items people need to purchase must be available in the markets and priced competitively. • Cash-for-work programs are quicker to launch, easier to manage, and less expensive than cash-for-food programs. • Cash-for-work has lower logistical costs than food-for-work (which has high transport costs and can easily disrupt the food market where it exists). • Cash-for-work can inject cash into the community, starting a chain reaction that helps many sectors of the market. The overall purchasing power of the community will be increased. Using local resources (e.g., producing bricks locally rather than bringing them from the capital or from abroad) can add benefits for the target locality. • The amount of the cash transfer should be equivalent to or just below the local minimum wage. • Cash-for-work must be monitored so that it does not lead to labor shortages for local enterprises. • Self-targeting of the neediest may not be as effective as with food-for-work, due to the desirability of cash. • Security and diversion risks for cash may be greater than food transfer risks.

SOURCES

AED. 2008. *Food, nutrition and livelihood preparedness for a pandemic influenza disaster: guidance for low-income countries.* AED/IFRC Working Group 1.

Amarantunga, C., and T.L. O'Sullivan. 2006. *In the path of disasters: Psychosocial issues for preparedness, response, and recovery*. Prehospital and Disaster Medicine. Women's Health Research Unit. Institute of Population Health, University of Ottawa.

FHI. 2009. Definition of psychosocial support in *OVC support tool kit*. Web site for International HIV/AIDS Alliance.

IFRC (International Federation of Red Cross and Red Crescent Societies). 2004. *World disaster report: Focus on community resilience*. Geneva: IFRC.

ILO. 2005. Rapid income recovery programme (RIRP) (for Sri Lanka Tsunami). Draft.

Maunder, R., J. Hunter, L. Vincent, et al. 2003. The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *Canadian Medical Association Journal* 168 (10).

McKnight, John L.and John P. Kretzmann. 1990. Program on Community Development. *Mapping Community Capacity*. Institute for Policy Research. Northwestern University.

The Sphere Project. 2000. *Humanitarian Charter and minimum standards in disaster response*.

Ursano, R., A. Norwood, and C. Fullerton, Eds. 2004. *Bioterrorism: Psychological and public health interventions*.

GLOSSARY

Absenteeism rate: Percentage of employed people absent from work at a given point in time or over a certain period of time (number of employees absent divided by total number of employees, multiplied by 100).

Antiviral medications: Medications that may be effective for treating people infected with a pandemic influenza virus, or for preventing illness in people who have been exposed to a pandemic influenza virus. Examples include oseltamivir (Tamiflu®) and zanamivir (Relenza®).

Attack rate: See ***clinical attack rate***.

Audience (key or target audiences): a person, or group of people, who you want to reach with a communications message.

Authority: In this toolkit, authority refers to a specific responsibility, usually related to decisionmaking in an emergency. Examples include the authority to close a business, the authority to make decisions on behalf on an organization or government, or the authority to implement policies or safety measures.

Backgrounder: A written document for distribution to the media that provides background information related to an event, disease, or crisis.

Biosecurity: The use of special equipment, clothing, cleaning, or behaviors that can help prevent exposure to or the spread of an infectious disease (or exposure to another environmental health threat).

Call log: A document for keeping track of phone calls received via a public telephone hotline. Typically a call log includes: type of call (request for information, complaint, etc.), date/time of call, result of call (for example, referral provided, information provided, etc.), and any follow-up action needed.

Case: A person who gets sick from a pandemic virus.

Case fatality rate: The proportion of individuals who get sick and die from a pandemic virus (total number of people who die of the virus divided by total number of people who get sick; multiply by 100 to get percentage).

Cash transfers: A way to provide people who have a sudden loss of ***livelihood*** (such as income) with enough money to cover their basic needs, by providing them with cash or vouchers (coupons).

Cellular text message: A brief written message, usually 160 letters or less, sent electronically between mobile phones.

Channel (communications channel): What, where, or how information is conveyed. Examples of communication channels are loud speakers, amateur shortwave radios, billboards, posters and flyers, newspapers, radio, television, cell phones, and the Internet.

Childcare: Childcare programs include (1) non-residential centers or facilities that provide care to any number of children, (2) large family childcare homes, where one or more adults (providers) care for seven or more children in a provider's home, and 3) small family childcare homes, where one or more adults care for up to six children in a provider's home.

Clinical attack rate (or illness rate): Percentage of people in a municipality (or other population) who get sick from a virus (number of people who get sick divided by total population, multiplied by 100).

Clinically ill: People infected with the pandemic virus who show signs and symptoms of illness.

Comfort care: Care provided to dying patients to keep them as comfortable as possible.

Communications command center/post: Physical location that serves as the central point for all crisis-related communication and houses the communication support team.

Communications goal: The desired result of a communication (such as an interview or press release) or ***key message***.

Communications plan: A written plan for how the municipality will manage communications during a severe influenza pandemic or other crisis.

Communications support team: The team responsible for handling communication during a crisis.

Community (or group) interviews: Interviews with a large group of community members (approximately 25–30 people) in order to gather background information on a particular community or group. Often men and women are divided into separate groups in order to learn about their different views.

Community mitigation strategy: A strategy designed to slow down or limit the transmission of a pandemic virus in a community.

Comorbidity: The presence of other illnesses in addition to a primary illness; for example, when a pandemic influenza patient also has another disease such as tuberculosis or malaria.

Containment: Preventing a virus or other infectious disease from spreading outside a localized area.

Cough etiquette: Covering the mouth and nose while coughing or sneezing by using the elbow, shoulder, or disposable tissues, and washing hands often to avoid spreading an infection to others.

Countermeasures: Medicines or drugs that can help prevent or treat a pandemic virus, including ***pre-pandemic vaccines***, ***pandemic vaccines***, and ***antiviral medications***.

Critical infrastructure: Systems that are essential to a society's security, economy, public health, and/or safety, such as housing, water systems, market structures, roads, schools, and health centers.

Disaster management team: Employees or personnel—usually from multiple sectors—assigned by municipal leaders to manage the response to a disaster.

Early, targeted, and layered non-pharmaceutical interventions strategy: A strategy for implementing various ***non-pharmaceutical interventions*** early and consistently in a pandemic in order to slow or limit transmission of the virus in a community.

Empathy: The ability to identify with and understand somebody else's feelings or difficulties.

Emergency operations center: Refers to both the multisector team responsible for coordinating response to a disaster and the physical location of this team.

Essential goods: Food and other supplies that a municipality needs to survive, such as medical supplies and gasoline.

Essential services: Services and functions that must be continued, even during a pandemic, to maintain the health and welfare of the municipality. Without them sickness, poverty, violence, and chaos would likely result.

Essential workers: Personnel needed to maintain essential services.

Face mask: Disposable mask covering the nose and mouth, designed to prevent the transmission of influenza germs from one person to another.

Fact sheet: A printed document, usually no more than one page, providing basic facts about a disease or situation in an easy-to-read format, such as bulleted sentences.

Faith-based organization: An organization that holds religious or worship services, or is affiliated with a particular religion or house of worship (church, synagogue, mosque, etc.).

First announcement: First official message to the public—either through the media or directly—about a crisis situation.

First responders: A wide variety of community representatives, staff, and volunteers who will provide critical information, care, and leadership during a pandemic influenza crisis.

Focus group discussions: A way to get a quick understanding of a specific population's views on a key issue; a facilitator or moderator leads a discussion with approximately 6–8 people.

Food security: A condition in which people can grow, buy, or trade for enough nutritious food for a healthy and active life. The term food security and the opposite condition, food insecurity, may be applied to individuals, families, groups, or communities, as well as cities or regions.

Hand hygiene: Frequent hand-washing with soap and water for 20 seconds, or rubbing hands with alcohol-based products (gels, rinses, foams) that do not require the use of water, in order to prevent the spread of illness.

Hotline: A direct telephone line available for the public to call into 24 hours a day to ask questions about a crisis or other issue of public concern.

Illness rate (or clinical attack rate): Percentage of population that gets sick from a virus (number of people who get sick divided by total population, multiplied by 100).

Immunity: The ability to avoid infection or disease through the body's immune system. Immunity can be innate (present at or around birth) or acquired, either through exposure to disease or through vaccination.

Impact projection: The estimated number of deaths and seriously ill persons that will require healthcare during a pandemic.

Incubation period: The amount of time (hours, days, or weeks) between when a person is first exposed to an infection or virus and when the first symptoms (like coughing or fever) begin.

Infection control: Ways to reduce the risk of transmission of an infection or virus from infected individuals to other people (including hand hygiene, cough etiquette, use of personal protective equipment such as face masks and respirators, and disinfection).

Influenza pandemic: A worldwide epidemic caused by the emergence of a new influenza virus ***strain*** to which humans have little or no ***immunity***, and which develops the ability to infect humans and to be transmitted efficiently between humans for a sustained period of time.

Isolation: Keeping sick people away from others to prevent them from infecting others; can be done in a hospital, clinic, or at home.

Key informant interviews: One of several methods of gathering information about a community for the purpose of evaluating the community's vulnerability in terms of ***food security*** and ***livelihood security***; specifically, individual interviews with people who are knowledgeable about certain aspects of a community (such as community leaders, shopkeepers, healthcare providers, or teachers) or people who are highly vulnerable and/or have a unique perspective (such as widows, older people, orphans, or the disabled).

Key message: Important point that a communicator (such as a municipal leader or spokesperson) wants an audience to remember after an interview, press conference, etc.

Livelihood groups: Groups of people who have similar sources of income and/or food as well as similar social/cultural practices; such groups typically share a similar level of risk for food insecurity (see ***food security*** above).

Livelihoods: The skills, abilities, and assets (such as money saved in bank accounts, land owned, and access to social services) that people have; all of their activities; and the decisions they make that help them survive each day. This includes, but is not limited to, the way people earn money.

Livelihood security: The ability to maintain a healthy and secure life.

Media advisory: A brief document (one page or less) presenting basic information about an upcoming event to media outlets, usually with the purpose of inviting them to attend a special event, such as a vaccination clinic or a news conference.

Media contact list: A list of key contacts at media outlets, including the name and title of media representatives, phone numbers, fax numbers, and email addresses.

Media inquiry: A question or request for information from a media outlet.

Media monitoring: Watching, listening, and reading the news in order to keep track of what is being reported, note any false information or rumors that need to be corrected, and evaluate the success of communications in order to adjust messages as needed.

Media monitoring system/report: A system for monitoring the media, as described above; and written reports that present the results of this monitoring, on a weekly basis for example.

Message map: A visual aid that serves as a quick reference to an organization's messages, their sequence, and their importance, which municipal leaders and their communications team can use to respond to anticipated questions or concerns about a pandemic or other crisis.

Misinformation: False information.

Morbidity rate: The number of people in a population who have a disease at a given time (e.g., 20,000 cases of influenza in a population of 100,000 people equals a 20% morbidity rate).

Mortality rate: Percentage of people who die from the illness over a specific period of time (e.g., 20 deaths per 100,000 people per week equals a 0.02% mortality rate).

Mult box (or press box): A device that connects a podium, speaker, and microphone; may be needed by broadcast reporters to record the proceedings of press conferences.

Municipal leadership team: Personnel responsible for the regular, daily functioning of a municipality, typically composed of the mayor, his or her immediate support staff, and other officials.

News briefing: A brief session at which government officials (or other authorities) update the media on the progression of events and/or new information related to an ongoing crisis; typically shorter than a press conference.

News conference: See ***press conference***.

NGOs: Non-governmental organizations. Examples are the International Federation of Red Cross and Red Crescent Societies, World Health Organization, and Salvation Army.

Non-essential services: Services that are not essential to a municipality's survival and thus can be stopped or closed down during a pandemic (for example, barber shops or libraries).

Non-pharmaceutical interventions (NPIs): Non-medical actions that can limit the spread of a disease, such as ***social distancing*** and ***infection control***.

Op-ed (opposite editorial): A newspaper article expressing an opinion, usually written by a prominent journalist or an expert in a particular subject, and printed on the opinion page.

Pandemic vaccine: Vaccine to help prevent people from getting infected with a pandemic virus; such a vaccine can be developed only after the pandemic virus emerges.

Pandemic wave: Pandemics typically occur in a series of waves, each one lasting approximately 6 to 12 weeks.

Peak week: The worst week of a pandemic wave, when the greatest amount of deaths will occur, usually around the midpoint of the wave.

Personal protective equipment: Any type of clothing, equipment, or device used to protect workers while doing their jobs; for healthcare workers, protective equipment usually includes gowns, face shields, gloves, face masks, and respirators.

Post-exposure prophylaxis: Administering antiviral medications to individuals who have been exposed to people infected with influenza, but may not have gotten sick, in order to prevent further transmission of the disease.

Pre-pandemic vaccine: Vaccine to protect people against strains of influenza virus that may have the potential to cause a pandemic (typically virus strains that have occurred in animals and infected some humans, as happened with the avian influenza H5N1 virus). Because this type of vaccine is prepared before a new pandemic virus begins, it is not known how much protection it will provide against the actual pandemic virus.

Preparedness: Being prepared for unpredictable events such as a pandemic, other public health emergency, or natural disaster.

Post-trigger: When international leaders announce that a pandemic influenza virus is spreading easily from person to person and is likely to spread around the entire world (pandemic Phase 6, according to the World Health Organization). This starts the "response phase" in pandemic influenza programs.

Press conference (or news conference): A formal event in which government officials and/or other authorities invite journalists to hear new information and ask questions about a crisis, event, or situation.

Press release: A one to two page document for distribution to the media, usually to provide basic information (who, what, when, where, why) on an event or an update on an ongoing situation such as a pandemic.

Prophylaxis: Something one can do to prevent a disease or illness. In relation to pandemic influenza, this specifically refers to giving antiviral medications to healthy people in order to prevent the virus from spreading.

Public information: Information that needs to be shared with the public.

Public information officer: Official of a government, government agency, or other organization who is responsible for providing information to the public and the media.

Public safety sector: The forces/departments responsible for the safety of a population, such as the police, military, or civil defense.

Public service announcement: A 30- to 60-second broadcast designed to persuade an audience to take specific actions, or to adopt a particular viewpoint on an issue.

Quarantine: Keeping people who may have been exposed to an illness but are not yet sick away from others for a long enough period of time to determine if they are going to get the illness, in order to prevent the spread of the disease.

Rapid diagnostic test: Medical test for quickly confirming whether someone has been infected with a specific influenza strain.

Recovery: The process of recovering from a shock (like a pandemic) and returning to a state of well-being that is equal to or greater than pre-disaster living conditions.

Resource-poor countries: Countries that have severe gaps in pandemic preparedness and capacity for responding to a pandemic, and that may generally lack critical economic, health, and social resources for their populations.

Response: Actions taken by leaders, communities, and individuals to reduce the impact of a pandemic once it reaches the immediate geographic region.

Resource-rich country: Countries that have relatively greater economic, health, and social resources for responding to a pandemic than resource-poor countries.

Safety net programs: Programs that provide resources to disadvantaged groups; for example, homeless shelters, unemployment benefits, food distribution, etc.

Seasonal influenza: Influenza virus infections by strains that occur in familiar annual patterns. Because these strains have infected humans in the past, most people already have some protection, or ***immunity***, against them.

Second- and third-order consequences: Unintended consequences resulting from a social distancing measure. For example, closing schools may lead to increased employee absenteeism, a second-order consequence, because parents will need to stay home to care for their children. High absenteeism may lead employers to close workplaces, which could result in loss of income for employees, a third-order consequence.

Sector: A distinct subdivision of a society, economy, or government whose components share a similar function. A municipality may be grouped into different sectors depending upon the roles or areas of expertise of their members within the community (such as the health, transportation, or utilities sectors).

Social distancing: Measures to increase the space between people and decrease contact among people in order to reduce the spread of an infectious disease like influenza, such as school closures, work closures, and cancellation of public gatherings.

Social networking site: A Web site that provides an online social community, usually open to the public, where individuals can post and read others' personal information and communicate with each other electronically.

Spokesperson: Person who communicates with the media and the public on behalf of a government or organization.

Strain (or virus strain): A subcategory of an influenza virus. There are many different strains of influenza viruses, which change constantly and create new strains that replace older ones.

Surge capacity: The ability of an organization to provide more services than usual for a limited period of time in order to meet increased demand during a crisis such as a pandemic. For example, the ability of medical laboratories to provide greater numbers of vaccines, or the ability of a hospital to care for more patients than usual.

Surgical mask: Disposable face mask that covers the mouth and nose, used to prevent the transmission of germs.

Surveillance: Continuous monitoring of a disease (both cases of illness and its spread) with the goal of controlling the disease.

Sympathy: The feeling or expression of pity or sorrow for the pain or distress of somebody else.

Talking points: Main points, prepared and written down in advance, for a spokesperson or other official to focus on during an interview, press conference, or other media appearance; usually closely related to an organization's key messages.

Target audience: The people to whom a message, communication, or information is directed.

Telework: Working away from the usual workplace (often at home) and communicating with the workplace via computer (usually e-mail and/or internet), telephone, or fax.

Triage: A way to prioritize medical treatment for patients based on the severity of their conditions—in order to save the most lives—when it is not possible to treat all patients immediately.

Virulence: The ability of a virus or bacteria to cause illness, and the severity of the illness caused.

Waves: Unlike most disasters, which tend to happen as a single event that ends within a day or so (such as a hurricane or an earthquake), a pandemic may occur in a series of waves, each one lasting approximately 6–12 weeks. The very worst week of the first wave is likely to occur around the fourth or fifth week after the pandemic starts in your area. It is difficult to determine the impact of each subsequent wave. However, because of the additional strain that each successive wave places on a municipality's resources, each wave has the potential to be more lethal than the previous one.

Wealth ranking (categories): A way of categorizing people in a community according to community members' perceptions of how well off or poor people seem to be (for example, categories are typically "very poor," "poor," "better off," and "well off"). These categories usually are defined not just by financial wealth, but also by how people earn money and how much access they have to community services such as healthcare.

This glossary has been adapted in part from the following source:

CDC (Centers for Disease Control and Prevention). 2007. Appendix 1: Glossary of terms, in *Interim pre-pandemic planning guidance: Community strategy for pandemic influenza mitigation in the United States*, 71-74. http://pandemicflu.gov/plan/community/community_mitigation.pdf (accessed May 15, 2009).

RESOURCES

KEY PANDEMIC WEBSITES

H2P (Humanitarian Pandemic Preparedness). **H2P Pandemic Preparedness Website.** http://pandemicpreparedness.org (accessed September 23, 2009).

Since 2007, USAID has funded several agencies (International Federation of the Red Cross and Red Crescent Societies, AI.COM, CORE Group, InterAction, and the United Nations) to reduce the risk of excess mortality from an influenza pandemic in more than 25 countries. The focus is on humanitarian coordination and community-level preparedness. The H2P Website is a virtual store of pandemic preparedness resources—planning tools, training modules, guidance and policy documents, communication and advocacy tools, and reference materials for areas such as food security and livelihoods—all of which are downloadable free from this Website.
Language: English (Website)
(Downloadable materials in English, Spanish, Thai, and other languages)

PAHO (Pan American Health Organization). **Pandemic influenza.**
English: www.paho.org/english/ad/dpc/cd/flu-pan.htm
Spanish: www.paho.org/spanish/ad/dpc/cd/flu-pan.htm
(both accessed June 25, 2009).

This is PAHO's primary Website for information and guidelines related to pandemic influenza. The homepage links the user to information on the current level of alert, the PAHO regional mandates and resolutions, information for journalists, travel information fact sheets, frequently asked questions, links, and regional preparedness (in the Americas).
Languages: English and Spanish

U.S. Department of Health and Human Services. Interagency Public Affairs Group on Influenza Preparedness and Response. **PandemicFlu.gov.**
English: www.pandemicflu.gov
Spanish: http://espanol.pandemicflu.gov (both accessed June 25, 2009).

This Website provides one-stop access to U.S. Government-wide information on pandemic influenza for many audiences: the general public, health and emergency preparedness professionals, health communicators, policy makers, government and business leaders, school systems, and local communities. The home page includes tabs for planning, preparedness, and response information.
Languages: English and Spanish

WHO (World Health Organization). **Epidemic and Pandemic Alert and Response (EPR) Website**. www.who.int/csr/en/ (accessed June 11, 2009).

This Website provides the latest news and authoritative information on H1N1 influenza and pandemic influenza, health guidance for communities and individuals, and answers to frequently asked questions.
Languages: English, Spanish, and others

HEALTH

Low, D. 2008. ***Pandemic planning: non-pharmaceutical interventions.*** *Respirology* 13(s1): S44-48. www3.interscience.wiley.com/cgi-bin/fulltext/119415224/HTMLSTART (accessed June 24, 2009).

This article identifies and describes the non-pharmaceutical public health interventions that would be most likely to reduce the impact of an influenza pandemic. It also provides background information about the use of non-pharmaceutical interventions in the past, and guidance for how to implement them.
Language: English

Phillips, S.J., and A. Knebel, eds. 2007. ***Mass medical care with scarce resources: A community planning guide.*** Prepared by Health Systems Research, Inc. AHRQ Publication No. 07-0001. Rockville, MD: Agency for Healthcare Research and Quality. www.ahrq.gov/research/mce/mceguide.pdf (accessed June 24, 2009).

The purpose of this extensive guide is to help community planners plan for and respond to a "mass casualty event." The guide describes the circumstances that communities are likely to experience during a mass casualty event; presents approaches and strategies for providing the most appropriate standards of medical care possible under these circumstances; and includes examples of planning strategies used by specific health systems, communities, or U.S. states. The information provided in this guide should help municipal or community leaders incorporate planning for a mass casualty event into the community's overall emergency planning.
Language: English

U.S. Department of Health and Human Services. CDC (Centers for Disease Control and Prevention). 2007. ***Interim pre-pandemic planning guidance: Community strategy for pandemic influenza mitigation in the United States.***
English: www.pandemicflu.gov/plan/community/commitigation.html
Spanish: http://espanol.pandemicflu.gov/pandemicflu/enes/24/_www_pandemicflu_gov/plan/community/commitigation.html
(both accessed June 25, 2009).

This document provides interim planning guidance for communities focusing on several non-medical measures that might be useful during an influenza pandemic to reduce its harm. The document introduces a Pandemic Severity Index to characterize the severity of a pandemic, provides planning recommendations for specific interventions that communities may use to reduce illness and death for a given severity level, and suggests how long these interventions should be used. The appendices provide supplemental guides for pre-pandemic planning assistance designed for various community settings such as schools, universities, childcare programs, businesses, and faith-based and community organizations.
Languages: English, Spanish, and others

WHO. 2008. ***Pandemic influenza preparedness and mitigation in refugee and displaced populations: WHO guidelines for humanitarian agencies.*** 2nd edition. Geneva: WHO. www.who.int/diseasecontrol_emergencies/HSE_EPR_DCE_2008_3rweb.pdf (accessed June 25, 2009).

These practical field-based guidelines are intended for use by humanitarian agencies and ministry of health staff working with refugee and displaced populations at local and national levels. They are intended both for camp settings and for open settings with displaced populations living dispersed among local communities. The document focuses primarily on response during an influenza pandemic, but also provides background information on pandemic influenza, strategies for dealing with each pandemic phase, and pre-pandemic preparedness activities.
Language: English

WHO (World Health Organization). 2008. ***Pandemic influenza prevention and mitigation in low resource communities.*** http://www.who.int/csr/resources/publications/swineflu/PI_summary_low_resource_02_05_2009.pdf

WHO (World Health Organization). 2009. ***Pandemic influenza preparedness and response: a WHO guidance document.*** http://www.who.int/csr/disease/influenza/PIPGuidance09.pdf

FOOD SECURITY AND LIVELIHOODS

CARE. 2002. ***Household livelihood security assessments: A toolkit for practitioners.*** Prepared by TANGO International for CARE USA's Partnership and Household Livelihood Security Unit. Tucson, AZ: TANGO International. www.proventionconsortium.org/themes/default/pdfs/CRA/HLSA2002_meth.pdf (accessed June 25, 2009).

This handbook outlines the background and methodology of household livelihood security assessments and how they can be used in various circumstances. It provides step-by-step guidelines on how to conduct such an assessment, including data collection and analysis.
Language: English

Gentilini, U. 2007. ***Cash and food transfer: A primer.*** Occasional Papers No. 18. Rome: WFP (UN World Food Programme). http://reliefweb.int/rw/lib.nsf/db900sid/JBRN-6YVHT5/$file/WFP-food-Mar07.pdf?openelement (accessed June 25, 2009).

This paper explains the advantages and disadvantages of cash transfers versus food transfers, and provides guidance in how to choose which type of transfer to use in a given situation, when to use both together, and how to implement such transfers.
Language: English

H2P (Humanitarian Pandemic Preparedness Initiative). 2008. ***Food, nutrition, and livelihood preparedness for a pandemic influenza disaster: Guidance for low-income countries.*** Prepared by Steve Hansch and the H2P Food Security Working Group. www.pandemicpreparedness.org/categories/details.aspx?section_id=3 (accessed June 25, 2009). (Scroll down the Web page to locate document title, then click on "Download.")

This document was created by international experts to advise community leaders and planners about the possible consequences of an influenza pandemic on food, nutrition, and livelihoods. Leaders can use the document to learn how to gather information and produce a community-based food security "pandemic preparedness plan," appropriate to the unique types of work, interactions, and foods in their communities. The document provides a menu of possible interventions which may promote food access by all people in the community throughout a pandemic crisis.
Language: English

IFRC (International Federation of Red Cross and Red Crescent Societies). 2007. ***Global food security assessment guidelines.*** Geneva: IFRC. www.ifrc.org/Docs/pubs/disasters/resources/about-disasters/food-security-en.pdf (accessed June 25, 2009).

This guide is a practical tool aimed to assist IFRC staff and volunteers throughout the world in conducting food security assessments. It does not require prior knowledge or experience with food security. It covers the different stages of a food security assessment, and offers techniques and examples for carrying out an assessment. The guide is valid for both rural and urban settings.
Language: English

Soares, F.V., and T. Britto. 2007. ***Confronting capacity constraints on conditional cash transfers in Latin America: the cases of El Salvador and Paraguay.*** Working Paper 38. Brasilia, Brazil: International Poverty Centre, UNDP (United Nations Development Programme).
English: http://www.undp-povertycentre.org/pub/IPCWorkingPaper38.pdf
Spanish: http://www.undp-povertycentre.org/pub/esp/IPCWorkingPaper38.pdf
(both accessed June 25, 2009).

This paper compares the Conditional Cash Transfer experiences of El Salvador and Paraguay. It focuses on how each country's program managed the balance between resolving short-term poverty problems with long-term poverty, and on how the programs were implemented.
Languages: English and Spanish

WFP (World Food Programme). 2009. ***Emergency food security assessment handbook***. 2nd edition. Rome: WFP, Food Security Analysis Service. http://home.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp203244.pdf (accessed June 25, 2009).

This handbook is intended for use in emergency situations or prolonged crises, whether due to sudden natural disaster, drought, disease, economic collapse or conflict, and to address the needs of both resident and displaced persons. It provides the most up-to-date guidance on how to conduct accurate, timely food security assessments, as well as options for responding to both food and livelihood insecurity.
Language: English

CRISIS AND EMERGENCY RISK COMMUNICATIONS

Brennan, B. 2007. ***Crisis and outbreak communication: pandemic flu and other disasters***. PAHO (Pan American Health Organization).
English: http://new.paho.org/hq/images/stories/AD/HSD/CD/INFLUENZA/crisis&outbreakcomm_presentation_bryna_brennan_eng.pdf
Spanish: http://www.paho.org/spanish/ad/Resources_PAHO_Docs_Sp.htm (look for title "Comunicación de riesgos y brotes") (both accessed June 15, 2009).

This PowerPoint presentation provides a very useful overview of the principles of crisis and emergency risk communications as they apply to a pandemic outbreak. The presentation covers the following topics: crisis and outbreak communication; differences between risk communication and crisis communication, WHO outbreak communication guidelines, communication strategies and planning, specific guidance for communicating at the various stages of a pandemic, presenting information to the public, and working with the media.
Languages: English and Spanish

Covello, V.T., D.B. McCallum, and M.T. Pavlova, eds. 1989. ***Effective risk communication: the role and responsibility of government and non-government organizations.*** Contemporary Issues in Risk Analysis, vol. 4. New York: Plenum.

This book, edited by leading risk and crisis communication experts, presents the results of a U.S. Government conference on risk communication held in 1987. It presents risk communication guidelines and principles for all levels of government (though these principles are applicable to non-government organizations as well) and provides examples and case studies of risk communication programs in the United States. Of particular interest are the following chapters: "Communicating with the public on health risks," "Helping the public make health risk decisions," and "Encouraging effective risk communication in government: suggestions for agency management."
Language: English

PAHO and CDC (U.S. Centers for Disease Control and Prevention). ***Self-instruction course: risk communication.*** www.cepis.ops-oms.org/tutorial6/ (accessed February 9, 2009).

This online, interactive self-instruction course teaches practical methods for communicating health risks in Latin America and the Caribbean. The course covers the elements of risk communication, as well as strategies and effective procedures for conducting such communication. Users can follow the course at their own pace in the time they have available. After completing all the modules, users have the option of taking an examination; those who pass the exam will receive a certificate verifying completion of the course.
Languages: English, Portuguese, and Spanish

Susskind, L., and P. Field. 1996. ***Dealing with an angry public: the mutual gains approach to resolving disputes.*** New York: The Free Press.

This book, written by experts in the area of conflict resolution, presents a non-confrontational way of interacting with an angry public. The authors offer suggestions for addressing the public during difficult situations, such as when people are unhappy about a new government policy, when disasters occur, or when mistakes have been made that negatively impact the public. The "mutual gains approach," also known as the "win-win approach," includes the following key points: be open with the public; act in a trustworthy fashion; select a capable spokesperson; and know that government and business should, can, and do cooperate. The book includes several specific examples of successful public communication campaigns and provides strategies for improving those that prove to be unsuccessful.
Language: English

U.S. Department of Health and Human Services. 2002. ***Communicating in a crisis: Risk communication guidelines for public officials.*** www.riskcommunication.samhsa.gov/RiskComm.pdf (accessed January 21, 2009).

This guide is a resource for public officials and health communicators on the basics of effective communications and working with the news media. It describes basic skills and techniques needed for clear, effective communication and information dissemination. It provides a brief orientation to how the media works, and to the public as the message recipient; techniques for working with the media to convey information and deliver messages before, during, and after a public health crisis; a guide to media relations and public communications; and strategies for addressing likely challenges and opportunities.
Language: English

U.S. Department of Health and Human Services. ATSDR (Agency for Toxic Substances and Disease Registry). Revised 1994. ***A Primer on health risk communication: Principles and practices.*** www.atsdr.cdc.gov/risk/riskprimer/index.html (accessed January 12, 2009).

This primer is a very useful introduction to health risk communication. Municipal leaders and communicators can apply these principles and practices to communicating the risk of an influenza pandemic, or other health risks, to their communities. The book is divided into three sections: (1) guiding principles for health risk communication (e.g., myths and actions, seven cardinal rules of risk communication, factors influencing risk perception, interacting with the community, and assessing effectiveness), (2) presenting information at public meetings (e.g., presentation aids, using risk comparisons, a presentation planner, ten deadly sins of communication, answering questions, some do's and don'ts of listening, and managing hostile situations), and (3) working with the media (e.g., the media perspective; preparing a message; before, during, and after an interview; and in a crisis).
Languages: English and Spanish

U.S. Department of Health and Human Services. CDC. 2002. ***Crisis & emergency risk communication: By leaders for leaders,* with accompanying participant manual**. Prepared by B. Reynolds.
Main document: www.bt.cdc.gov/erc/leaders.pdf
Participant manual: www.bt.cdc.gov/erc/part_man.pdf
(both accessed January 21, 2009).

In this document, seven U.S. municipal, state, and national leaders who have employed successful communication strategies during major public safety emergencies offer their experiences and insights for other leaders to learn from. The document covers a broad range of topics: how communicating in a crisis is different, what the public seeks from its leaders, communication failures, communication steps for success, expected behaviors that must be confronted, perceptions of risk, the first message in a crisis, and much more. The second document, a 36-page participant manual, is comprised primarily of PowerPoint slides that can be used in communicating this information to others.
Language: English

U.S. Department of Health and Human Services. CDC and ATSDR. Office of Communication. 1999. ***Simply put: Scientific and technical information: Tips for creating easy-to-read print materials your audience will want to read and use.*** 2nd edition. www.cdc.gov/od/oc/simpput.pdf (accessed June 25, 2009).

This 48-page guide shows how to translate complicated scientific and technical information into material that captures and holds the interest of the intended reader. It provides tips for creating easy-to-read print material (brochures, booklets, pamphlets, etc.) by teaching how to write simply, use language and visuals that the audience can relate to and understand, and organize the information so it is easy to act on and recall.
Language: English

U.S. Department of Health and Human Services. NIH (National Institutes of Health). National Cancer Institute. n.d. ***Making health communication programs work (the pink book).*** Revised edition. www.cancer.gov/pinkbook (accessed February 25, 2009).

This book is a long-trusted friend to many health communicators in the United States and provides a practical approach represented visually as "the communications wheel." The guidance covers planning and implementing health communication initiatives that can be tailored to the user's program size, topic, geographic span, intended audience, or budget. The book provides an overview of health communication; the communication process; planning and strategy development; developing and pre-testing concepts, messages, and materials; implementing the program; assessing effectiveness and making refinements; description of communication research methods; and more.
Language: English

WHO (World Health Organization). 2005. ***Effective media communication during public health emergencies: A WHO handbook.*** By R. N. Hyer and V. T. Covello. Geneva: WHO. www.who.int/csr/resources/publications/WHO%20MEDIA%20HANDBOOK.pdf (accessed January 30, 2009).

This handbook is an excellent reference for the health communicator who is participating in the development of a national, regional, or local preparedness and response plan for an influenza pandemic. It includes a seven-step process for planning and implementing effective media communications. A succinct companion field guide highlights the practical aspects of the seven-step approach, and contains a wall chart of these steps with key information and advice. The handbook, field guide, and wall chart can be downloaded at www.who.int/csr/resources/publications/WHO_CDS_2005_31/en/ (accessed February 25, 2009). **Language: English**

Yale, D.R., with A.J. Carothers. 2001. ***The publicity handbook: The inside scoop from more than 100 journalists and PR pros on how to get great publicity coverage—in print, on-line, and on the air.*** 2nd edition. New York: McGraw-Hill.

This handy book covers all aspects of working with the media and getting good media coverage, including: writing for the media, preparing broadcast publicity, working with broadcasters, responding to media inquiries, and working with online (internet) media. Each section includes an extensive checklist, and the book also includes an indispensable directory of sources and services available to those working with the media—databases, media directories, Websites, and more. **Language: English**

DISASTER MANAGEMENT

FEMA (U.S. Federal Emergency Management Agency). 2006. ***Pandemic influenza continuity of operations (COOP) annex template instructions.*** www.fema.gov/pdf/government/coop/influenza_coop_annex.pdf (accessed June 25, 2009).

This guide provides instructions for developing a Pandemic Influenza Continuity of Operations (COOP) plan, as well as sample text that organizations can adapt to their specific needs. These instructions accompany an electronic template, *Continuity of Operations (COOP) Plan Template,* which may be downloaded at www.fema.gov/government/coop/index.shtm (under the heading "DHS COOP"). **Language: English**

Morgan, O., M. Tidball-Binz, and D. Van Alphen, eds. 2006. ***Management of dead bodies after disasters: A field manual for first responders.*** Washington, DC: PAHO (Pan American Health Organization), WHO (World Health Organization), ICRC (International Committee of the Red Cross), and IFRC (International Federation of Red Cross and Red Crescent Societies).
English: www.paho.org/English/DD/PED/DeadBodiesFieldManual.htm
Spanish: www.paho.org/spanish/dd/ped/DeadBodiesFieldManual.htm
(both accessed June 24, 2009).

This manual aims to promote the proper and dignified management of dead bodies, and to maximize their identification. It provides practical, simple instructions for local organizations, municipal employees, and/or volunteers who may be responsible for managing dead bodies in disaster situations. The manual is organized in an easy-to-use format, with one chapter for each key task, so that local coordinators can copy and distribute the relevant chapters to individuals responsible for those tasks. (In addition, the manual includes chapters on information management and on communications and the media, which could be useful to communications support teams.)
Languages: English and Spanish

New Zealand. Ministry of Economic Development. ***Influenza pandemic planning information for business continuity*** **(Website).** www.med.govt.nz/templates/ContentTopicSummary_14451.aspx (accessed June 25, 2009).

This Website is designed to assist business continuity planning for influenza pandemics. The information is divided into two sections: (1) a downloadable *Business Continuity Planning Guide,* which contains information designed for general use by businesses and other organizations and (2) a Pandemic Planning Information Kit tailored for infrastructure providers in the energy, communications, transport, water, and waste sectors. This contains a version of the Planning Guide and some associated documents to assist in planning.
Language: English

PAHO and WHO. 2004. ***Management of dead bodies in disaster situations***. Disaster Manuals and Guideline Series, no. 5. Washington, DC: PAHO.
English: www.paho.org/English/DD/PED/ManejoCadaveres.htm
Spanish: www.paho.org/spanish/dd/ped/ManejoCadaveres.htm
(both accessed June 25, 2009).

This manual analyzes the government's role in coordinating and carrying out the processes of managing dead bodies, which is a fundamental part of disaster response. It provides the technical information needed to support government authorities in the proper management of dead bodies. The manual should be useful for local authorities who are responsible for ensuring that bodies are treated in a dignified manner and that the human rights of those affected by disasters are respected. The document is currently being revised. An updated edition should be available at the Website soon.
Languages: English and Spanish

U.S. Department of Health and Human Services. CDC (Centers for Disease Control and Prevention). 2005. ***Business pandemic influenza planning checklist***. http://pandemicflu.gov/plan/workplaceplanning/businesschecklist.html (accessed June 25, 2009).

This checklist identifies important, specific activities large businesses can do now to prepare for a possible influenza pandemic, many of which will also help you in other emergencies. The checklist includes actions in the following categories: planning for the impact of the pandemic on your business, employees, and customers; establishing policies to be implemented during a pandemic; allocating resources to protect employees and customers; communicating to and educating employees; and coordinating with external organizations to help your community. **Languages: English and Spanish**

U.S. Department of Homeland Security. 2006. ***Pandemic influenza preparedness, response, and recovery: Guide for critical infrastructure and key resources.*** www.pandemicflu.gov/plan/pdf/cikrpandemicinfluenzaguide.pdf (accessed June 25, 2009).

The pandemic influenza preparedness, response, and recovery guide serves as a tool for businesses to develop continuity of operations plans specifically for catastrophic health emergencies such as pandemic influenza. **Language: English**