



Risk Communication and Post-Attack Anthrax Risk Management

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Center for Advancing Microbial Risk Assessment

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Risk Analysis and Risk Communication

- Quantitative risk analysis is used for developing effective mitigation strategies for bioterror attacks
- Often the success of the mitigation hinges on the public's participation
- Ineffective risk communication can undermine even the best responses

Heroin contaminated with anthrax has killed 11 people

Bryan Christie

¹ Edinburgh

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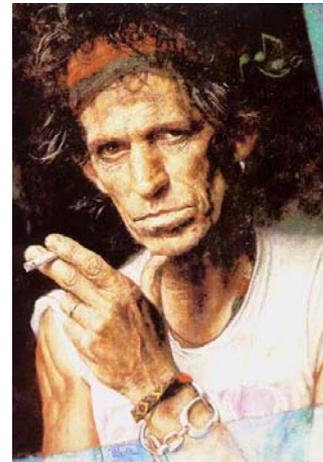
Eleven people have died from the first ever drug related outbreak of anthrax caused by contaminated heroin, which is thought to be still circulating in Europe.

Since December 10 deaths have been reported among injecting drug users in the United Kingdom and one in Germany. Only one case of anthrax infection in a drug user has ever been reported previously—from Norway in 2000.

The problem first appeared in Scotland in early December, and since then 21 cases have been confirmed in six separate Scottish health board areas, leading to nine deaths. Tests have shown that the German victim, who died in Aachen in December, injected the same strain of anthrax as in the Scottish cases. This suggests that it came from a single source and that the contamination occurred before the heroin was distributed.

Colin Ramsay, head of the outbreak control team at Health Protection Scotland, said, "**Users should seek urgent medical attention in the event of symptoms such as redness or swelling at or near an injection site or other symptoms such as a high temperature, chills, or a severe headache, as early antibiotic treatment can be life saving.**"

- Who is the audience?
- Can they follow the instructions?
- Are they likely to comply?



4TH GRADE
GREENDALE School
FRANKLIN AVE NJ 08822

SENATOR DASCHLE
509 HART SENATE OFFICE
BUILDING
WASHINGTON DC 20540-0509

09-11-01
YOU CAN NOT STOP US.
WE HAVE THIS ANTHRAX.
YOU DIE NOW.
ARE YOU AFRAID?
DEATH TO AMERICA.
DEATH TO ISRAEL.
ALLAH IS GREAT.

TOM BROOKAW
NBC TV
30 ROCKEFELLER PLAZA
NEW YORK NY 10112

09-11-01
THIS IS NEXT
TAKE PENACILIN NOW
DEATH TO AMERICA
DLATH TO ISRAEL
ALLAH IS GREAT

Editor
New York Post
1211 Ave. of the Americas
New York NY 10036

09-11-01
THIS IS NEXT
TAKE PENACILIN NOW
DEATH TO AMERICA
DEATH TO ISRAEL
ALLAH IS GREAT

Source: FBI/AP

In Their Own Words: Lessons Learned From Those Exposed to Anthrax

| Janice C. Blanchard, MD, MPH, Yolanda Haywood, MD, Bradley D. Stein, MD, PhD, Terri L. Tanielian, MA, Michael Stoto, PhD, Nicole Lurie, MD, MSPH

March 2005, Vol 95, No. 3 | American Journal of Public Health

Emerging Infectious Diseases • Vol. 8, No. 10, October 2002

Anthrax Postexposure Prophylaxis in Postal Workers, Connecticut, 2001

Jennifer L. Williams,* Stephanie S. Noviello,* Kevin S. Griffith,* Heather Wurtzel,*
Jennifer Hamborsky,* Joseph F. Perz,* Ian T. Williams,* James L. Hadler,†
David L. Swerdlow,* and Renee Ridzon*

Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science
Volume 6, Number 4, 2008 © Mary Ann Liebert, Inc.
DOI: 10.1089/bsp.2007.0064

THE ANTHRAX VACCINE AND RESEARCH: REACTIONS FROM POSTAL WORKERS AND PUBLIC HEALTH PROFESSIONALS

Sandra Crouse Quinn, Tammy Thomas, and Supriya Kumar

Risk Communication for Public Health Emergencies

www.annualreviews.org • Risk Communication for Public Health Emergencies
Deborah C. Glik

BIOSECURITY AND BIOTERRORISM: BIODEFENSE STRATEGY, PRACTICE, AND SCIENCE
Volume 2, Number 3, 2004
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A Bitter Pill to Swallow: Nonadherence with Prophylactic Antibiotics During the Anthrax Attacks and the Role of Private Physicians

BRADLEY D. STEIN, TERRI L. TANIELIAN, GERY W. RYAN, HILARY J. RHODES,
SHALANDA D. YOUNG, and JANICE C. BLANCHARD

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DOI: 10.1080/10810730390224820



Communication Lessons Learned in the Emergency Operations Center During CDC's Anthrax Response: A Commentary

MARSHA L. VANDERFORD

International Journal of Mass Emergencies and Disasters
March 2006, Vol. 24, No. 1, pp. 45-75

Public Perceptions About Trust in Emergency Risk Communication: Qualitative Research Findings

Ricardo Wray

BIOSECURITY AND BIOTERRORISM: BIODEFENSE STRATEGY, PRACTICE, AND SCIENCE
Volume 3, Number 3, 2005
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Communicating the Risks of Bioterrorism and Other Emergencies in a Diverse Society: A Case Study of Special Populations in North Dakota

MARTY McGOUGH, LOREETA LEER FRANK, STACIA TIPTON, TIM L. TINKER,
and ELAINE VAUGHAN

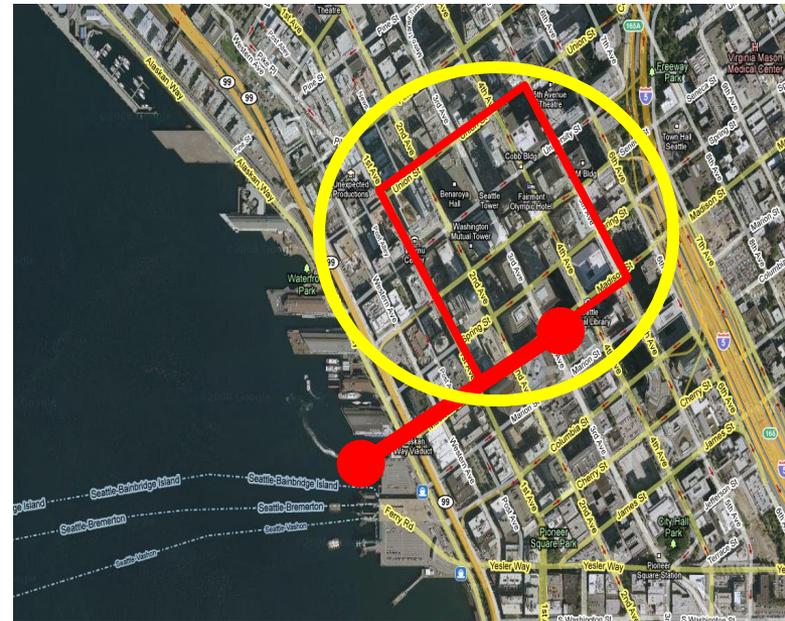
Lessons Learned

- What to Tell the Public:
 - What is anthrax?
 - What are the symptoms?
 - How is it transmitted?
 - How can infection be prevented?
 - How is anthrax treated?
 - How likely a harmful biological or chemical substance in the mail?
 - What has been done and what will be done to correct situation and apprehend perpetrators
- Use a messenger trusted by the target community.
- Explain any changes to recommendations
- Avoid apparent disparities in treatment on the basis of race or social class.
- Refute rumors and conspiracy theories

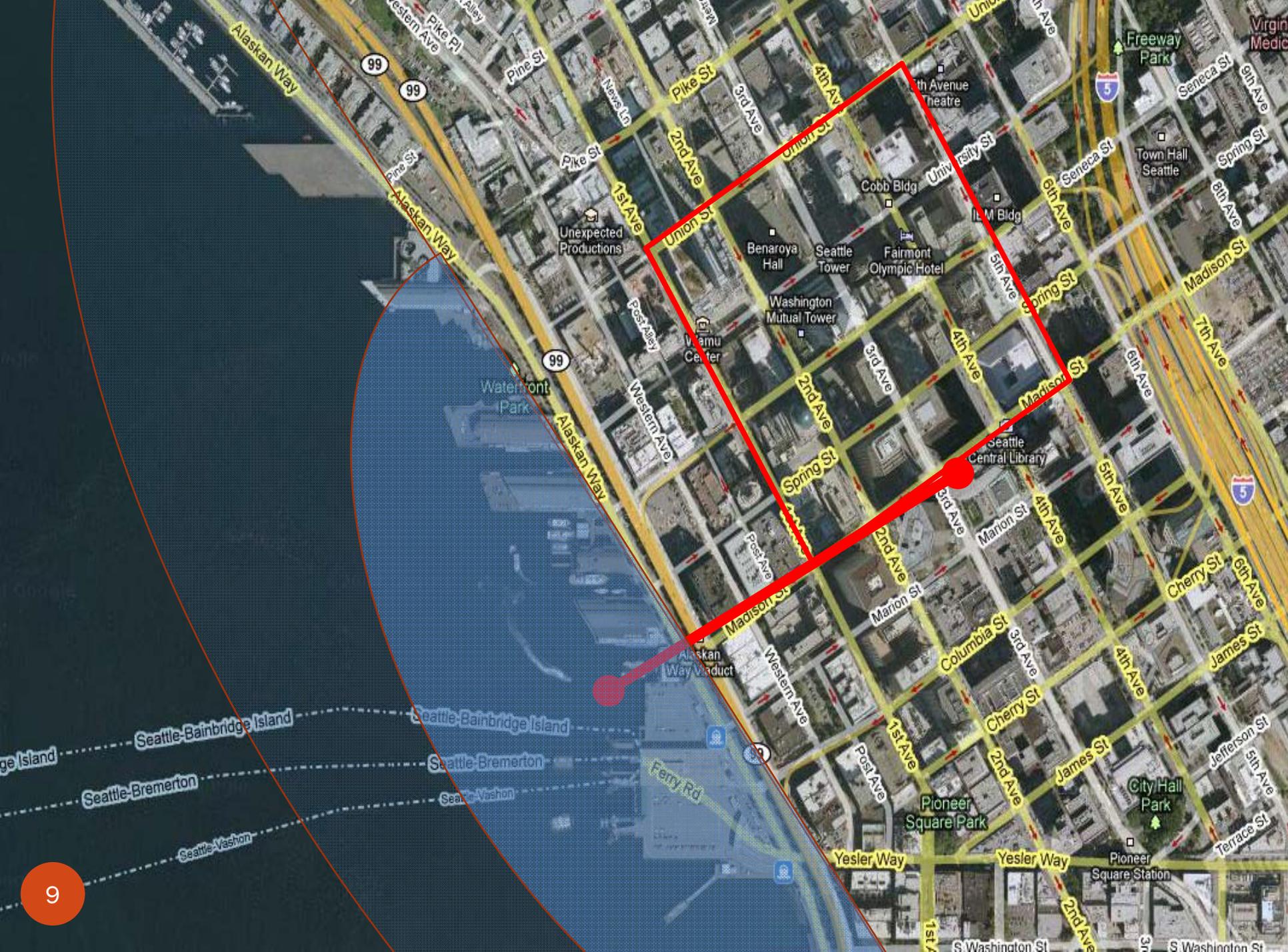
Seattle Anthrax Attack Scenarios

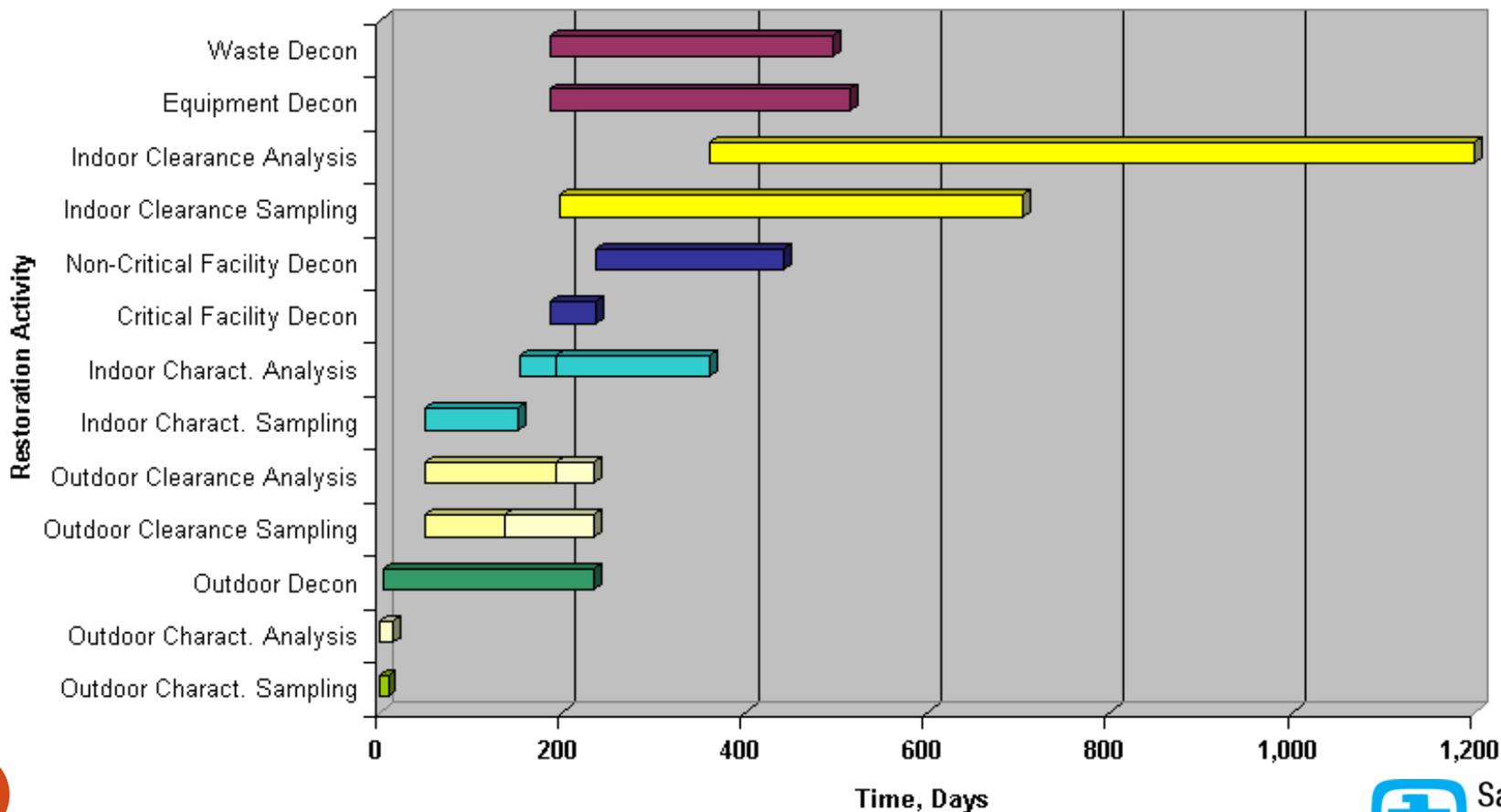
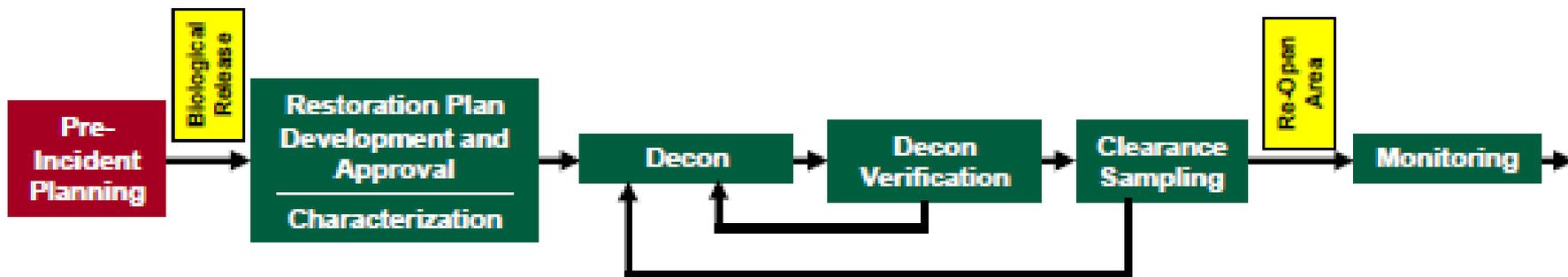


SANDIA



CAMRA





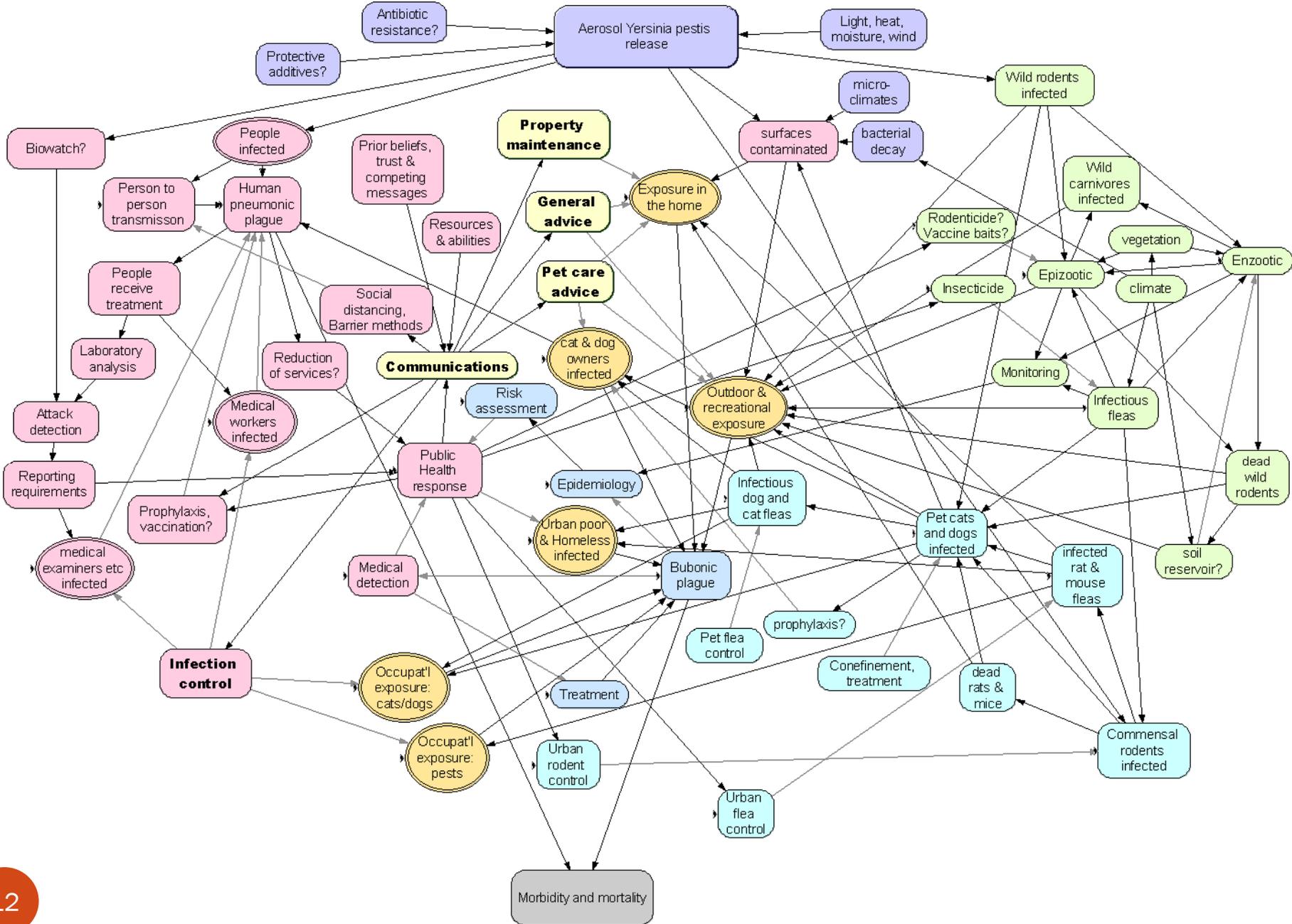
Risk Communication and Risk Analysis

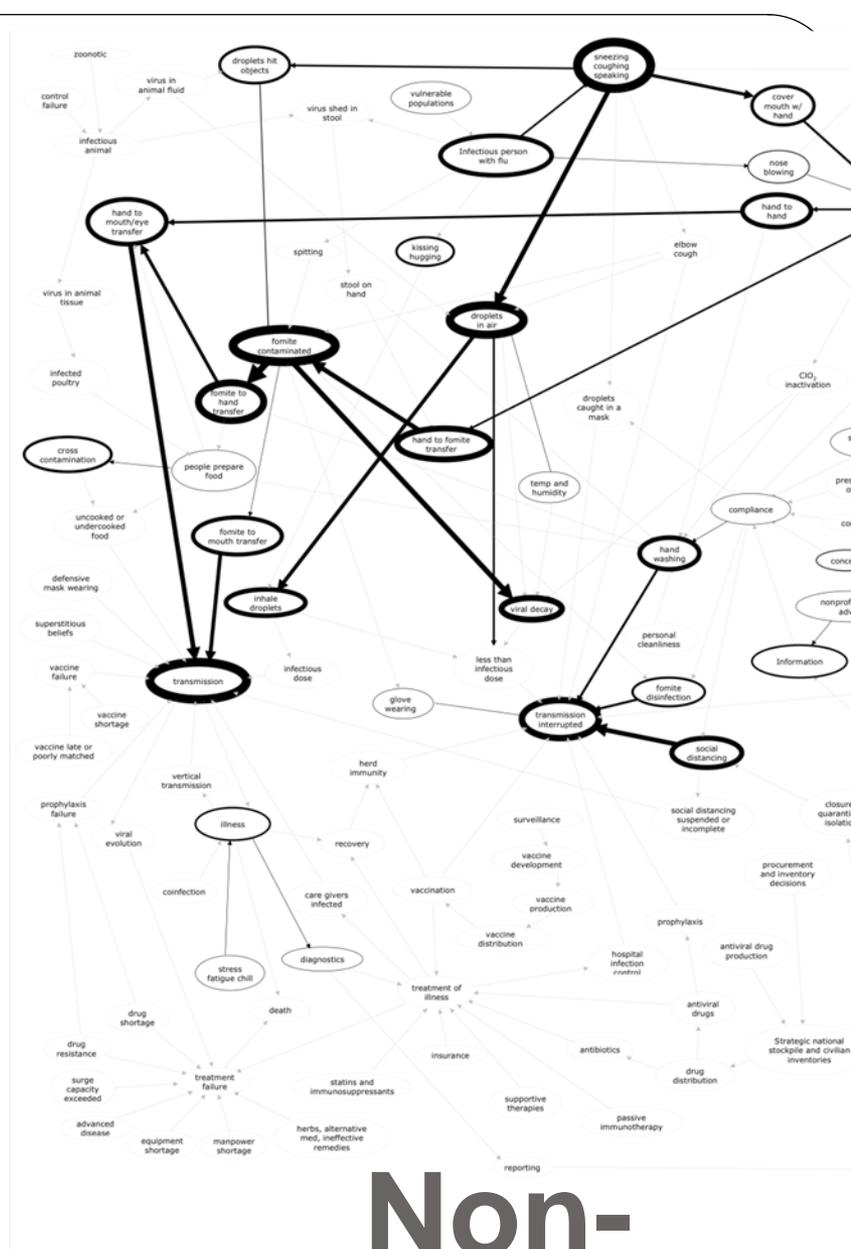
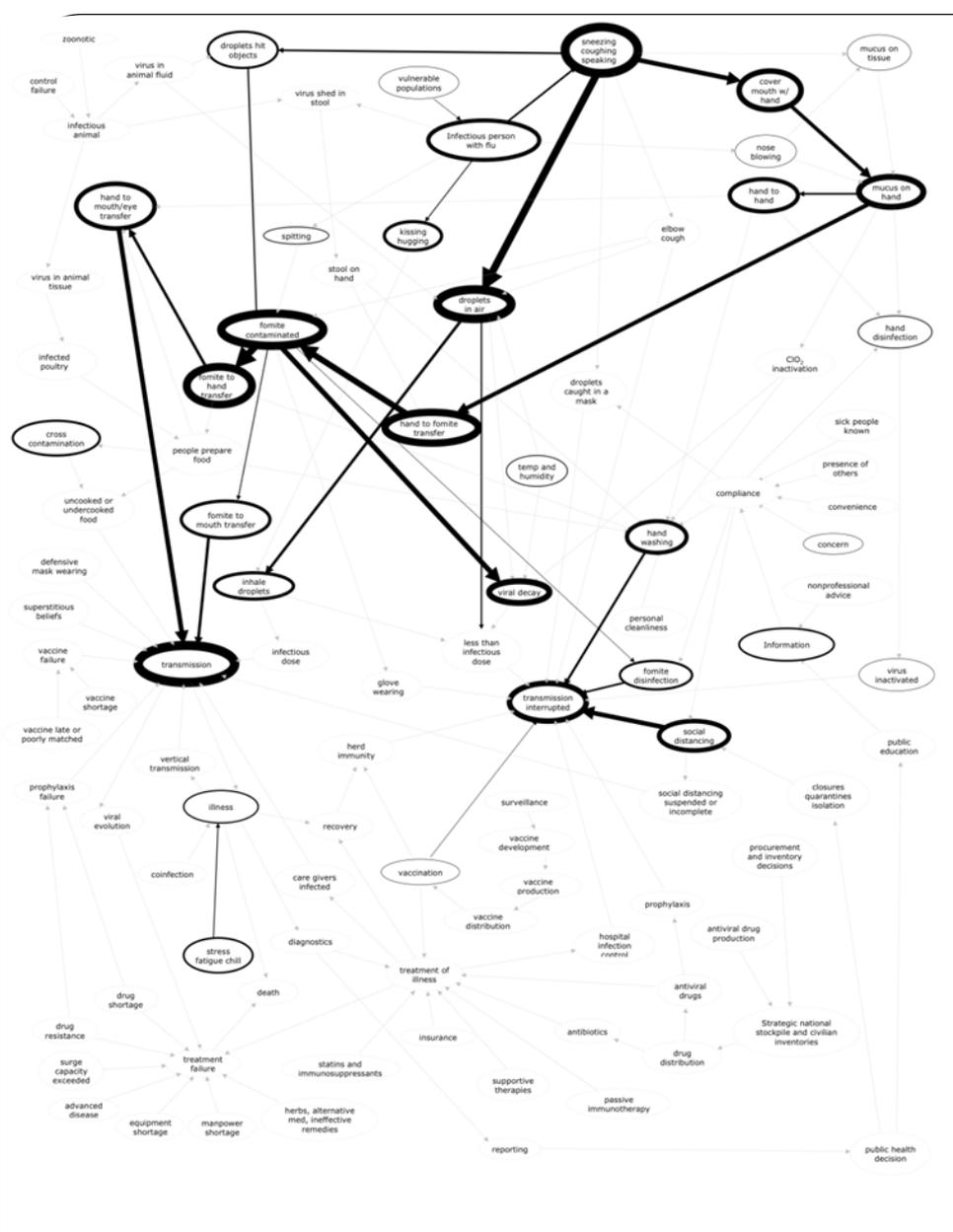
Risk Analysis, Vol. 28, No. 5, 2008

Risk Communication Planning for the Aftermath of a Plague Bioattack

Elizabeth A. Casman^{1*} and Baruch Fischhoff^{1,2}

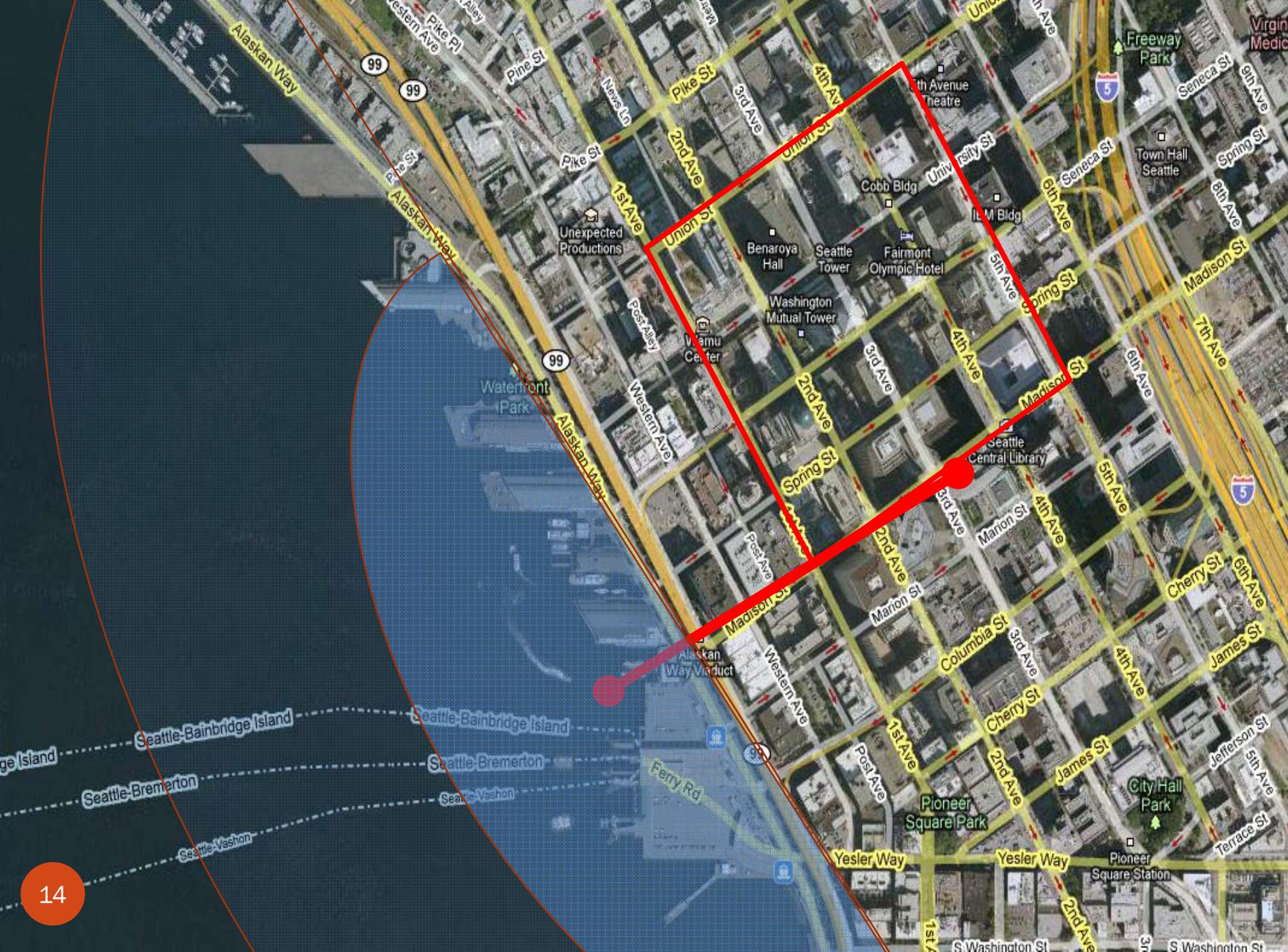






Vaccinators

Non-vaccinators



Local Stakeholders

- Property owners
- Employers
- Residents
- Street people
- Visitors
- Tourism industry
- Responders
- Military personnel
- City of Seattle
- Water & sewer utility
- Sea food industry
- Native Americans

Management decisions	QMRA	Public Buy-in
Evacuation		
Medical decisions		
Drawing contamination boundaries		
Decontamination decisions		
Re-opening businesses		
Closing/opening fisheries		

