Risk Communication Planning for Dynamic Situations:
the aftermath of a plague bio-attack

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CAMRA
Center for Advancing Microbial Risk Assessment

Importance of Risk Communication

After a bioterrorism attack, people will be expected to participate in some risk management activities.

People are more likely to follow instructions correctly if they understand the reasoning behind the advice.

How to Dispose of a Dead Animal

Boulder County Public Health Department

http://www.co.boulder.co.us/health/environ/vector/deadAnimal.htm

Step One: Do no pick up or touch dead animals.

Step Four: Using the shovel, place the animal in the plastic bag.

Step Two: Use a long-handled shovel to pick up the dead animal.

Step Five: Tie a knot in the bag.

Step Three: Place a strong plastic bag on the ground.

Step Six: Dispose of the bag in an outdoor trash container.

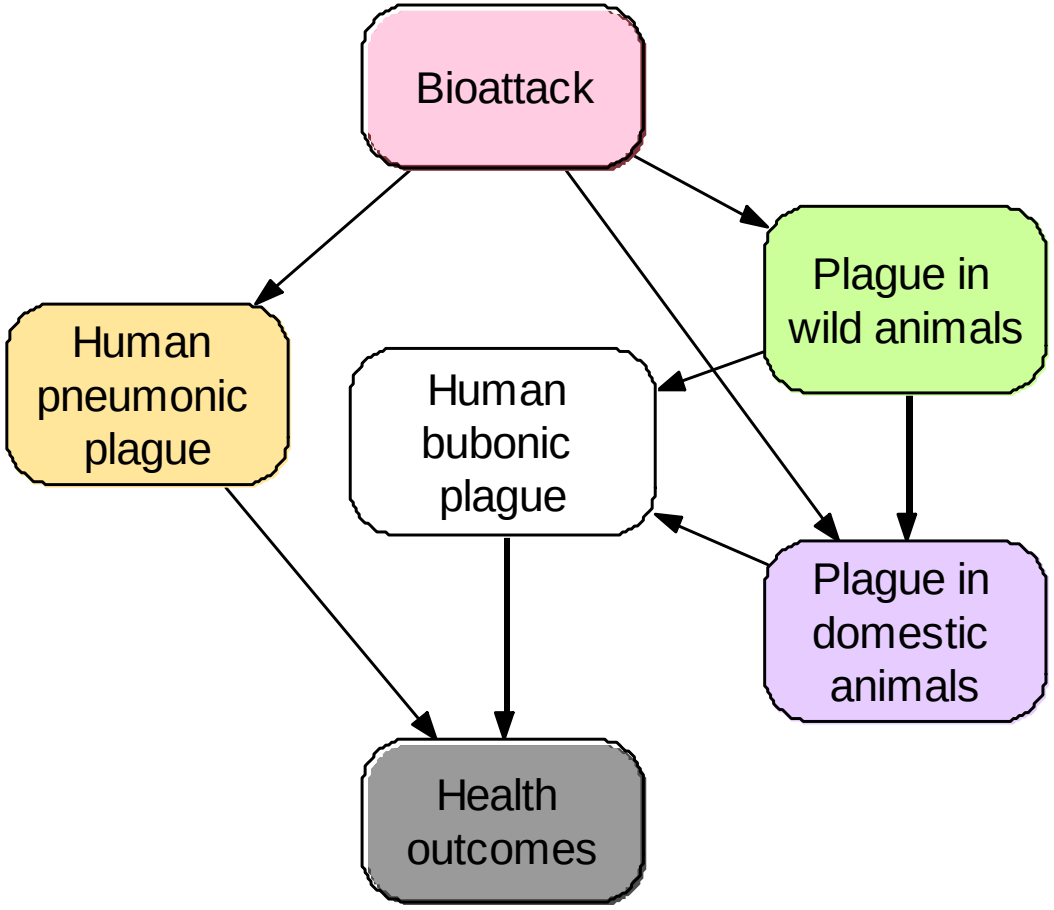
Challenge: planning the content

- Many possible variations
  - Local ecosystem
  - Season
  - Heterogeneous audiences
  - Dynamic situation
- Large body of literature on plague
  - Include all the essential information
  - Avoid irrelevant detail

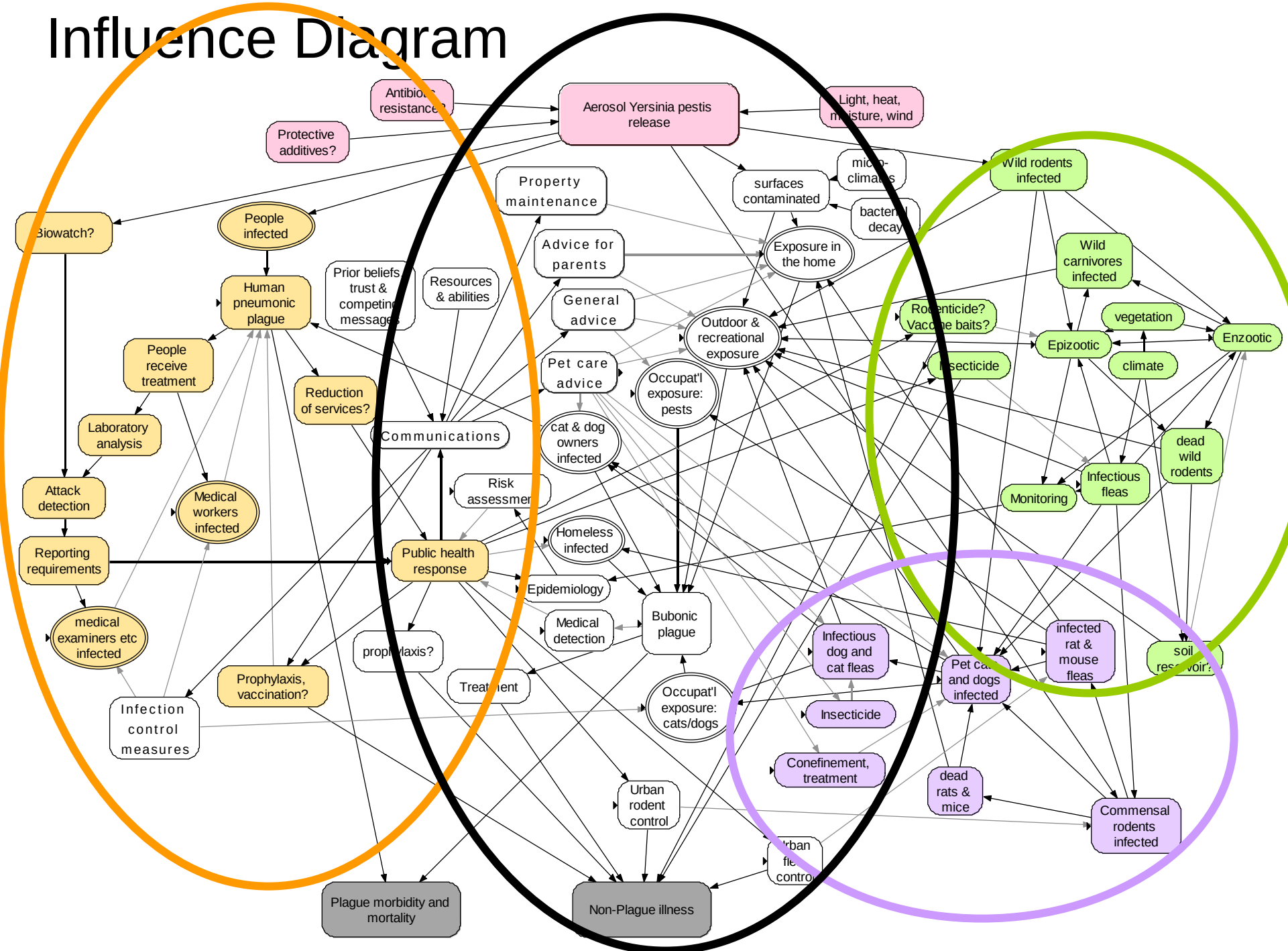
Influence Diagram Method

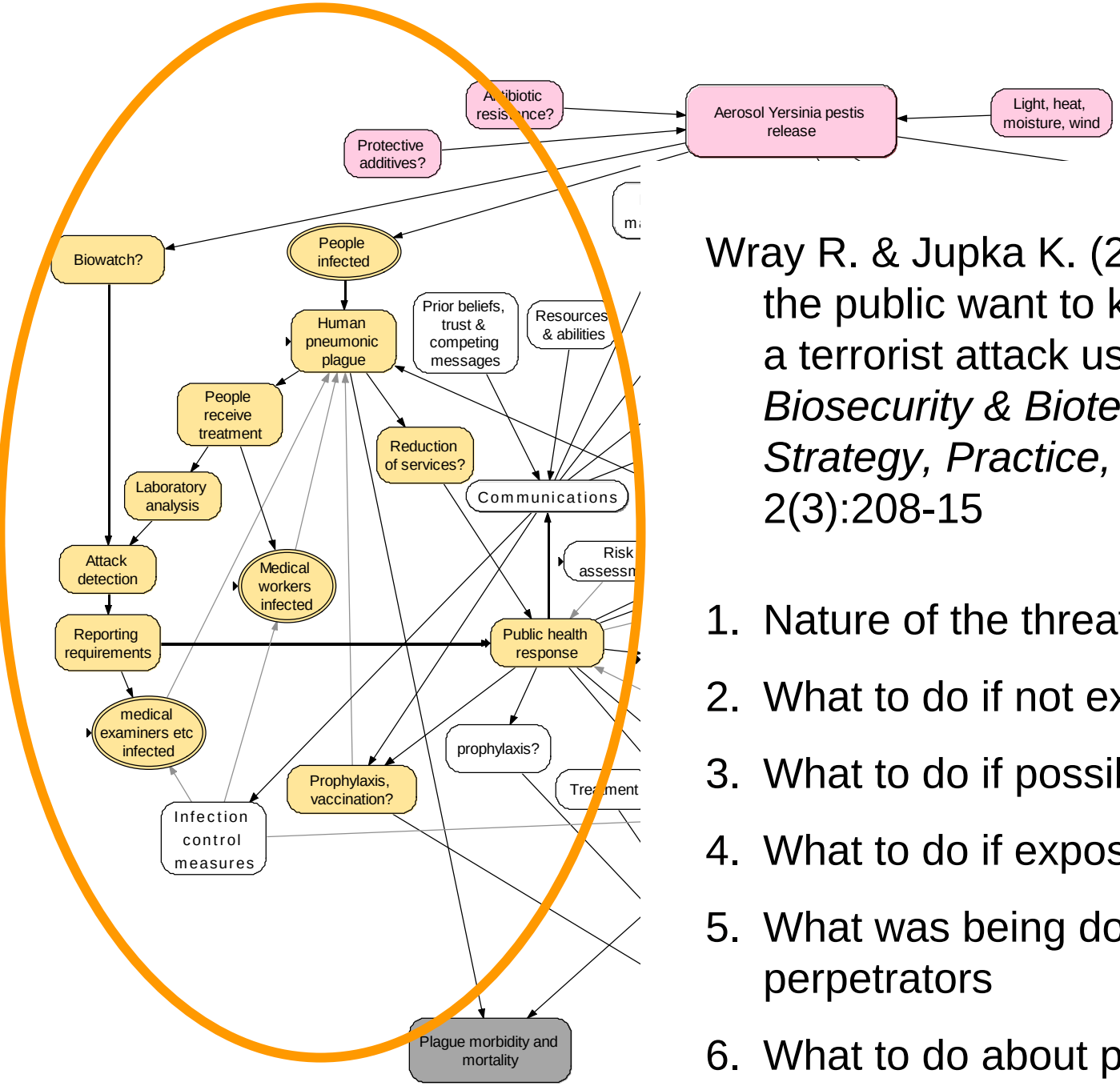
1. Construct influence diagram showing factors influencing risk in the bioterrorism scenario
2. Annotate the diagram in a document summarizing the current state of knowledge.
3. Submit diagram & document to expert review.
4. Locate situations where people are exposed to infection, and identify the information people would need to avoid these exposures
5. Prepare and test key messages in advance

Plague Bioattack Influence Diagram Structure



Influence Diagram

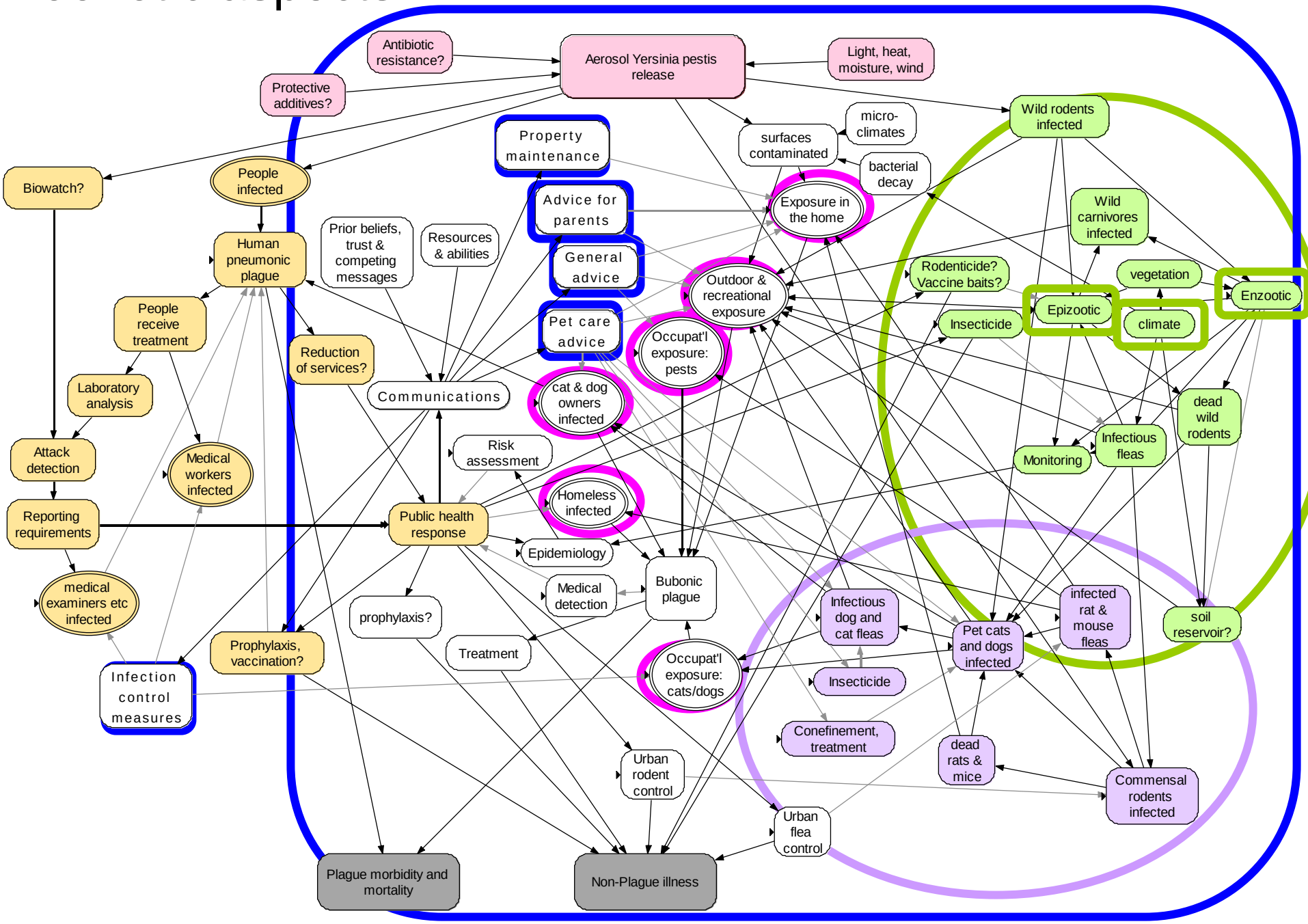




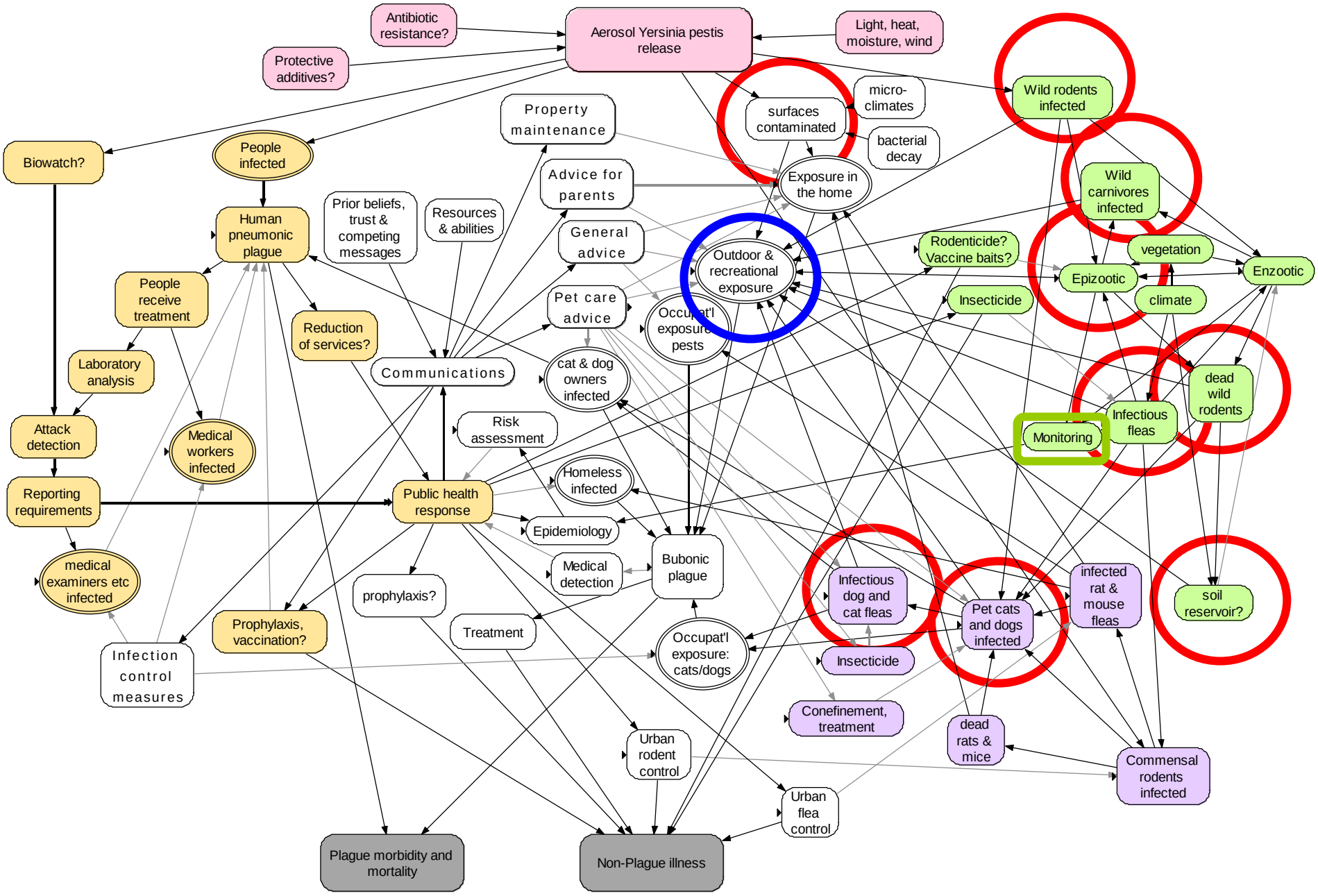
Wray R. & Jupka K. (2004) "What does the public want to know in the event of a terrorist attack using plague?" *Biosecurity & Bioterrorism: Biodefense Strategy, Practice, and Science* 2(3):208-15

1. Nature of the threat
2. What to do if not exposed
3. What to do if possibly exposed
4. What to do if exposed
5. What was being done to find perpetrators
6. What to do about pets & livestock

Zoonotic aspects



Can I let my children play outdoors?



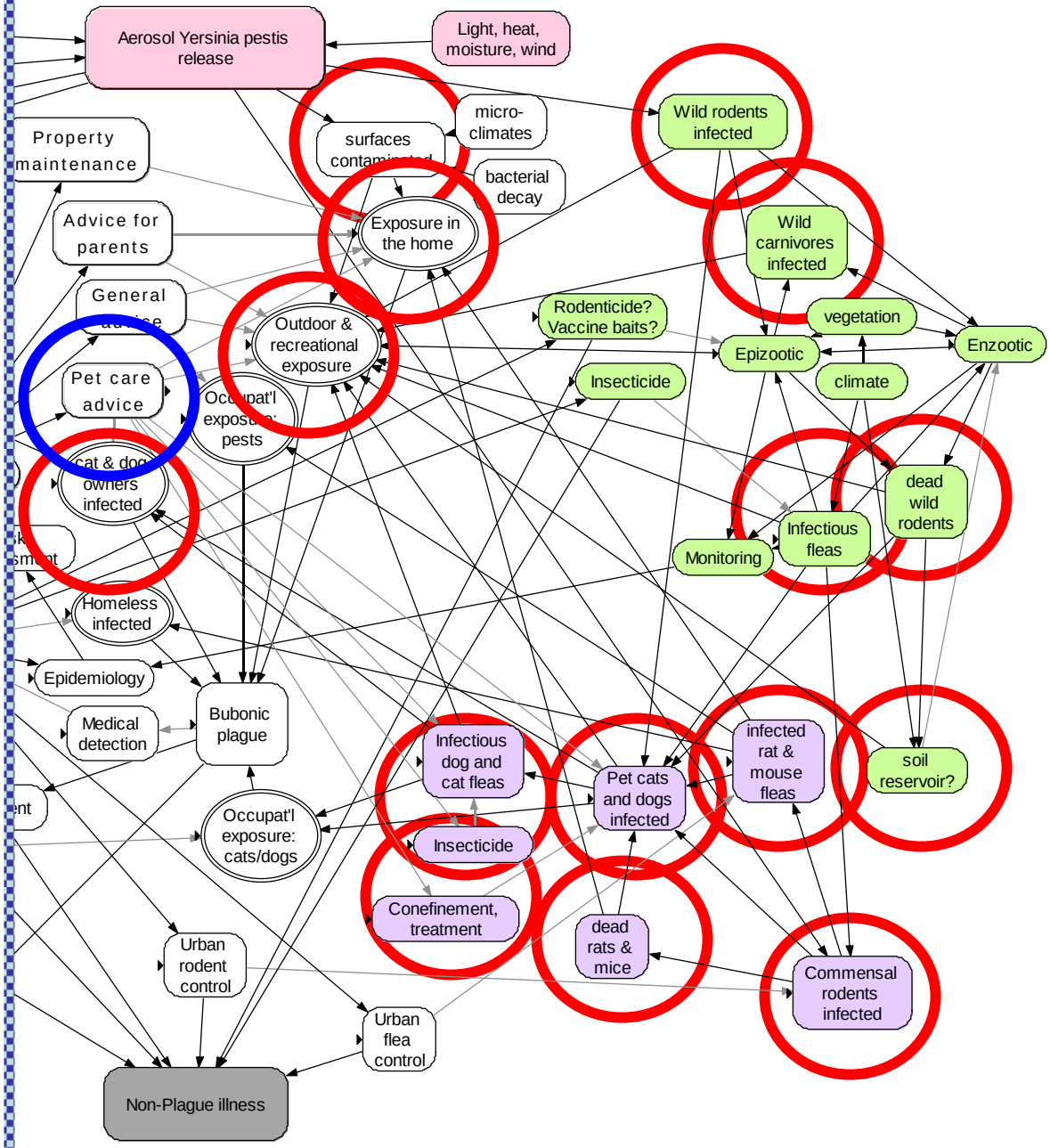
Develop Key Message: Information for cat & dog owners

Background

- How cats and dogs become infected
- How pets infect humans
- The symptoms of plague in dogs and cats

Instructions

- The recommended treatment for dogs and cats
- How to handle sick pets without risking infection
- Recommended flea treatments and correct application methods
- Ineffective and illegal flea treatments
- Isolation, confinement, and dog-walking recommendations
- How to remove sources of infection from yards
- How to disinfect household surfaces, clothing, people
- Antibiotic prophylaxis recommendations for people exposed to sick animals
- What to do if needed supplies are unavailable or ineffective



Summary

Influence diagram method for planning risk communications content

- Systematically identifies populations at risk and their information needs
- Highlights relevant causal linkages
- Promotes comprehensive and accurate risk communication content
- Facilitates contingency planning

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