Communications, Community Outreach and Risk

Connie Holubar, MS, MBA
Director of Operations
Galveston National Laboratory
University of Texas Medical Branch
Risks of Community Outreach

1. It raises your profile and puts people “out there.”

   + You need to have your act together

2. More people are aware of what you are doing, which when involving animal research, might attract negative attention.

3. Community outreach creates work for people, and everyone is “busy enough doing the important stuff already.”

4. Once you start, if you do a good job, it snowballs.
The Galveston National Laboratory would not have been built without the support of our community.

**Completed in 2008 at a cost of $176.6 Million**

- $115.1 Million – Federal Grants
- $57.0 Million – Tuition Revenue Bonds (approved by Texas Legislature)
- $4.5 Million - Philanthropy/UTMB Funds
Risk Communication

Any communication, whether it is written, verbal, or nonverbal, that attempts to characterize, quantify, or put into context a human health or environmental risk.
Tips for Good Risk Communications

- Avoid comparisons that minimize or trivialize the risk.
- Develop comparisons of other risks (other disease outbreaks).
- Acknowledge uncertainty, but explain what is being done to reduce that uncertainty.
- Help people understand that uncertainty is part of the process, and that as information is available, it will be shared.
- Recognize that “understanding risk” doesn’t make it acceptable.

Your audience will decide what is acceptable to them.
2 weeks in: the first crisis-Hurricane Ike
Key Message: The GNL was built to withstand a direct hit from a hurricane.

Front door is 15 feet above sea level – no water breached the facility.

BSL4 labs: Submarine in a bank vault.

Emergency plans solidly in place.

Hurricanes are relatively predictable – not as bad as tornados or earthquakes.

Lab served as “life boat” for other labs on campus.

Never lost power – back-up generators at 26 feet above sea level.
Community Outreach Tools – “Just Say Yes.”

Community Liaison Committee

“Open Door” Policy

- Tours for community groups/presentations to community groups
- Tours for high school students – focus on STEM careers
- Tours and lectures for students from regional universities

Transparency

- Responsive to media
- Proactive with media and community

Website / Internal Media / Texas Medical Center / Social Media
What else is there to talk with the community about?
New, Emerging & Re-emerging Infectious Diseases Studied at UTMB

Drug resistant tuberculosis
Tularemia
Middle East respiratory syndrome
Riverine Ehrlichia
West Nile encephalitis
Dengue
E. Coli 0157:H7
Burkholderia
Hantaviruses
H5N1, H7N9 influenza
Japanese encephalitis
Nipah virus
SARS
Hendra virus
Severe fever with thrombocytopenia

Anthrax
Hepatitis C
Hantaviruses
Cholera
Arenaviruses
Venezuelan equine encephalitis
Cryptosporidium
Zika
Yellow fever
Plague
Chikungunya
Rift Valley fever
Monkeypox
Lassa fever
Ebola, Marburg

utmb Health
Institute for Human Infections & Immunity
**BSL2**

*Examples: hepatitis, influenza A and B, HIV, anthrax*

**BSL3**

*Examples: SARS, West Nile virus, Zika, MERS, tuberculosis*
Aerobiology Lab

Studying pathogens in their aerosol form allows scientists to better understand how they infect people, which is key to testing prospective drugs and vaccines.
BSL-4 Laboratory

Examples: Ebola virus, Lassa virus, Nipah virus, Marburg virus, Crimean Congo HF
Careers in Science
Lots of cool stuff to talk about.

And...a few things it would be easier not to talk about.
Galveston Laboratory Loses Vial of Deadly Venezuelan Virus

A vial containing a deadly Venezuelan virus has gone missing from the Galveston National Laboratory, according to ABC News.

Animal abuse complaint made against UTMB

By Harvey Rice  Updated 12:39 pm CDT, Wednesday, November 2, 2016

GALVESTON – Researchers at the University of Texas Medical Branch violated the law by allowing a monkey to escape, then euthanizing it after the animal was found to have a broken leg, an animal rights group alleged in a federal complaint.
## Different Perspectives on Risk

<table>
<thead>
<tr>
<th>Scientists:</th>
<th>Public:</th>
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<tbody>
<tr>
<td>- Probability of occurrence</td>
<td>- Nature of occurrence</td>
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<tr>
<td>- Mortality and morbidity</td>
<td>- Wide range of consequences</td>
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<tr>
<td>- Effects on population</td>
<td>- Potential effects on family, friends and community</td>
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<tr>
<td>- Research and countermeasures “in the works”</td>
<td>- Lack of control over situation</td>
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Case Study

Communicating Risk: Ebola
Top Ten U.S. Google Searches of 2014

1. Robin Williams
2. World Cup
3. Ebola
4. Malaysia Airlines
5. Flappy Bird
6. ALS Ice Bucket Challenge
7. ISIS
8. Ferguson
9. Frozen
10. Ukraine

Among the top Google searches of 2014 were Ebola and "Frozen." One leaves you with something highly infectious that's impossible to get out of your system, the other is Ebola.

- Conan O'Brien, December 16, 2014
Dr. Tom Ksiazek’s Outbreak Experience

1977 – H1N1 Reemergence in Asia
1993 – Hantavirus Pulmonary syndrome, Southwest U.S.
1994 – Machupo virus, Bolivia
1995 – Ebola in Kikwit, Zaire
1996 - Ebola Reston, Alice Texas and Philippines
1999 – Nipah virus, Malaysia
2000 - Rift Valley Fever, Saudi Arabia and Yemen
2000 - Ebola, Uganda
2003 – SARS
2005 – Marburg , Uige, Angola
2007 – Ebola Zaire, Luebo, DRC
2007/8 – Bundibugyo (fifth Ebola virus), Uganda
2008--Marburg in travelers from U.S and Netherlands, Queen Elizabeth Park,
2008 – LuJo virus, Zambia and South Africa
2008 – Ebola Reston virus in pigs, Philippines
2007--2010 – Marburg virus studies (bats), Africa
2014 – Ebola virus, Sierra Leone, West Africa
August 11 – September 25, 2014
Dr. Tom Geisbert
Ebola: Wave One - Responding to a Global Health Crisis

Experts: Thomas Geisbert, Jim LeDuc and Thomas Ksiazek
Prominent Coverage: July - August

In Treating Ebola, Doctors Have Only Containment, Not Yet A Cure

AUDIE CORNHISH, HOST:

For more on the current Ebola outbreak, we turn now to Doctor Thomas Geisbert. He’s spent decades studying Ebola and other hemorrhagic fevers. He spoke to Audie Cornish about the current Ebola outbreak, the word in history, and how it might be contained this time around.

THOMAS GEISBERT, Professor of Microbiology and Immunology:

“Dr. Frederick Murphy, now a professor of pathology at the University of Texas Medical Branch at Galveston, was the first to see this unknown killer up close.”
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Ebola: Wave One - Responding to a Global Health Crisis

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Important for Scientists to Engage Public

How important is it for scientists to inform the public about their research and its impact on society?

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Scientists and Communications

FACT:
It is possible to be a brilliant scientist and also be a terrible communicator.
FACT:
The most successful* scientists are excellent communicators.

*can reproduce their work (good notes), collaborate with others, publish, get cited, write grants that get funded, explain their work to stakeholders or funding entities, lobby for support, serve as a resource to media.
Dos and Don’ts of Media Relations

1. Never do an interview “on the fly.”
2. Keep your points simple and your answers short.
3. Always prepare your key messages and stick to them. Get information from other sources if needed.
5. Never go “off the record” (there is no such thing)
6. If you don’t know the answer, admit it, offer to find out the answer, and follow-up.
7. Don’t feel the need to fill silence – it’s a tactic reporters use to get you talking.
8. Use notes.
9. Never ask to see a story before it runs/airs.
10. Remember that anything you say can and might be used against you.
INSTRUMENTS THAT MAGNIFY EBOLA:
Timeline for Dallas Ebola Patients

Sept. 15, 2014: "sinusitis"

Sept. 24

Sept. 19–20

Sept. 28

Sept. 29

Sept. 30

Oct. 2

Oct. 8

Oct. 10

Oct. 14

Oct. 24

Oct. 28

Oct. 28

NIH

Nina Pham Ebola-Free

Amber Vison Ebola-Free

Family Quarantined

"First US Ebola Patient Dies"

Liberia may sue Thomas Duncan.

"Stop the Flights!"
Educating the Public

WHY?

Primary: To provide the public with accurate and timely information

- Protect the health and safety of the public
- Accurately communicate risk
- Reduce panic

Secondary: Establish institutional sources as experts in the field; reputation building for individuals and institutions.
Target Audiences

General population

Sub groups
  Health care professionals
  Public health officials
  Elected officials
  News media
What the Public Wants to Know

• What is it? How do I get it? How do I avoid getting it? How do I know I have it (symptoms)? What do I do if I get it? How big is the risk (to me, my children, my parents...)?

• How many people have been/will be affected?

• What is being done to stop it? Who is in charge? Is it under control?

• When can I quit worrying about this?
What is Ebola?

- One of the most deadly viruses on earth. Named for the Ebola River in the DRC, where the first outbreak occurred in 1976.

- Infectious, marked by fever and severe internal bleeding: “hemorrhagic fever.”

- Long incubation period of 8-21 days. Early symptoms include fever, muscle weakness, sore throat and headaches.

- Transmitted through contact with blood or body fluids from an infected person.
Where does it come from?

- Natural hosts are thought to be fruit bats living in tropical African forests.

- Humans get it from the blood, organs or bodily fluids of infected wild animals: “bush meat” (chimps, bats, antelope, porcupines) found ill or dead in the rainforest.

- Once in the population, transmitted through close contact with the individual, burial ceremonies, items saturated with blood.
Ebola: Who is at Risk?

Health Care Workers
Ambulance Drivers

Family Members
Burial Team Members
FACTS: Sources of Export of Ebola

Local Nationals

International Travelers

Returning Volunteers & Health Care Workers
Ebola: Wave Two - Educating the Public About Ebola

Experts: Scott Lea, Thomas Geisbert, Jim LeDuc and Thomas Ksiazek
Prominent Coverage: September – October
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American doctor got experimental drug from Tekmira

American physician Richard Eboa, who contracted the disease in Liberia while caring for women in labor, has received an experimental drug called TRM-Ebola, made by Tekmira Pharmaceuticals Corp.

TRM hasn't been approved yet, and the Food and Drug Administration has put it on trial on a partial clinical hold while investigating side effects. But the agency allowed Eboa to receive it for compassionate use.

Eboa is living treated at the Nebraska Medical Center in Omaha, where he also received a blood transfusion from another missionary, physician Kent Brantly, who also fell sick while treating patients in Liberia. Brantly received an experimental drug called ZMapp. Supply of that drug – made in limited quantities because of its early phase of testing – have now been exhausted.

"ZMapp and TKM-Ebola work in different ways. ZMapp is a cocktail of man-made antibodies designed to help the body's immune system fight off Ebola." -- Dr. Thomas Geisbert

"We are working on all countermeasures for Ebola. So this is both vaccines and treatments." -- Dr. Thomas Geisbert

"Most times, when people get it, there's some kind of defining moment when they have been in close contact with the body fluids of somebody who had it," -- Dr. Geisbert said.
How important is it that elected officials at all levels listen to advice from scientists?

14% increase in those who responded ‘very important’ compared to January 2015.

Gov. Rick Perry visits UTMB's Galveston National Laboratory
Case Study
Communicating Risk: Zika
Target Audiences

General population
About the mosquito
Preventing breeding ground for mosquitoes

Sub groups
Pregnant women and young, sexually active individuals living or traveling in impacted areas

Health care professionals
Public health officials
Elected officials
Empathy/Caring Statements

1. I share your concern
2. Looking at the situation from your perspective, I also feel...
3. I live in the outbreak area too, and what I’m most interested in is...

Gender differences...
Personalizing risks can be good for communication.

Q: How can I reduce the risk of getting the Zika virus?

A: “I’ll tell you what I have told my own family members: avoid travel to affected countries. That’s number one. Secondly, take measures to reduce habitats for mosquitoes. At our home, we have removed the bird bath and gotten rid of anything that will allow standing water to collect. And when our kids go outside, we make sure they wear long sleeves and use a bug spray with DEET.”
Insectary Services Core

The only facility in the world permitted to import mosquitoes and ticks from all over the world.

More than 3,000 square feet of space dedicated to the study of mosquitoes, ticks and other vectors.

Designed for research into arthropod-borne biothreat agents and emerging infectious diseases.
Dr. Scott Weaver

https://www.youtube.com/watch?v=r7kMhCowCfg
Case Study (NOW)
Communicating Risk:
Childhood Vaccinations
Decrease in Percentage say ‘Strongly, Yes’ to Personally Benefiting From Vaccines

Do you believe that you have personally benefited from the development of vaccines over the last 50 years?

Source: Research!America surveys of U.S. adults conducted in partnership with Zogby Analytics in May 2018 and with Charlton Research Company in November 2008.