


Communicating CDC Guidance and Recommendations in a Public Health Emergency

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Division of Emergency Operations

Disclaimer

The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry

Emergency Communication System



Danger!

Communication during an emergency is different.

What do people want after a disaster?



- Information about the event
- Facts to protect themselves, their families, their pets
- Ability to make well-informed decisions with good information
- Active, participatory role in response and recovery
- Good stewardship of public resources
- Return to normal



Photos Huffington Post, Bangkok Post

Magnitude of Risk and Perceived Control

More Accepted	Less Accepted
Voluntary	Coerced
Natural	Industrial
Familiar	Exotic
Not memorable	Memorable
Not dreaded	Dreaded
Chronic	Catastrophic
Knowable	Unknowable
Individually controlled	Controlled by others



Fischhoff, 1981
Adapted from National Research Council. 1989. *Improving Risk Communication*.
Washington, DC: National Academy Press.

Emergency Risk Communication Approach



- **Increase Efficacy**
 - Uncertainty is greatest concern for most
 - Reduce anxiety; Give people things to do
 - Public seeks restored self-control
 - Public must feel empowered – reduce fear and victimization

Emergency Risk Communication Principles

- **Build and Maintain Credibility**
 - Do you care about my concerns?
 - Are you honest?
 - Do you know what you are talking about? (Expertise)
 - Do you have the capacity and will to deliver on your promises? (Power)
 - Are you like me? (Identification)

Emergency Communication System

- ❑ Cross-agency communication network that mobilizes to respond to public health emergencies
- ❑ Core staffing provided by CDC's Emergency Risk Communication Branch
- ❑ Goal:
 - ❑ Lead CDC's emergency communication for all-hazards response
 - ❑ Deliver timely, accurate, credible, and actionable health information to decision-makers
 - ❑ Empower people to take action to save lives and minimize morbidity and mortality

Joint Information Center

- **Function: Provide information and outreach to affected communities and stakeholders**
 - General public
 - Affected communities
 - Vulnerable Populations
 - Clinicians
 - Public Health Workforce
 - CDC Employees
 - Policymakers
 - International agencies

Emergency Risk Communication Messaging

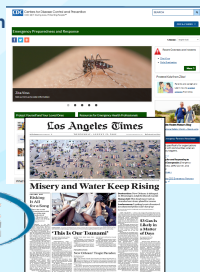
- ❑ Create (or adapt) scientifically accurate materials in partnership with subject matter experts
- ❑ Consistent with emergency risk communication principles
- ❑ Emphasis on plain language
- ❑ Tailored to audience-centered channels
- ❑ Website content, blog posts, Facebook posts, Tweets, fact sheets, health alerts, manuals, emails, text messages

Communication Surveillance for Real-Time Strategy & Assessment



Emergency Communication System

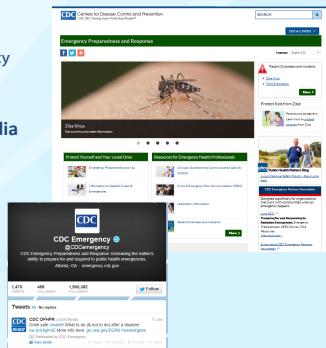
- **Function: Ensure consistent dissemination of information through**
 - News media
 - CDC Web site
 - Clinician List Serve and COCA Calls
 - National Public Health Information Coalition
 - CDC INFO
 - Health Alert Network
 - CDC Connects
 - WHO, Ministries of Health



This is an official
CDC HEALTH ADVISORY

Emergency Preparedness & Response Website and Social Media

- emergency.cdc.gov
 - Gateway to emergency information
 - 3,600+ pages
- **Emergency Social Media**
 - Twitter
 - Facebook
 - RSS feeds
 - Podcasts



Clinician Communication Activity

COCA Now
CDC Clinician Outreach and Communication Activity

New Zika Virus Resources for Clinicians: American Academy of Pediatrics Video and April CDC Vital Signs

Zika: Ten Tips for Pediatricians Supporting Families Video

Visit the American Academy of Pediatrics' (AAP) website to find videos with tips for pediatricians on how to provide psychological support for families affected by Zika.

<https://www.aap.org/unusdnp/zyz-and-pediatrics-health-initiatives/children-and-adolescents/zika>

Videos page

Also available on AAP's webpage are **ten videos for families concerned about Zika**. The first video is in English and the second in Spanish.

April CDC Vital Signs

This month's **Vital Signs** presents CDC's latest findings on Zika virus infection during pregnancy and the critical need for pregnant women to continue taking steps to prevent exposure to Zika virus. The report also emphasizes the importance of health care providers screening all pregnant women for possible Zika virus exposure and testing and evaluating all infants born to women exposed to Zika.

Health Alert Network (HAN)

- **Messaging system transmits cleared content**
 - Health Alerts
 - Health Advisories
 - Health Updates
 - Info Services
- **States then cascade to counties and local public**

This is an official
CDC HEALTH ADVISORY

Distributed via Health Alert Network
June 9, 2017, 9:28 AM EST
COCA-0104-16-016

Notice to Health Care Providers — Shiga Toxin-producing E. coli O104 (STEC O104:H4) Infections in U.S. Travelers Returning from Germany

CDC is reviewing a large number of Shiga toxin-producing *Escherichia coli* (STEC O104:H4) infections in Germany. The responsible strain shares molecular characteristics with enterohemorrhagic *E. coli* (EHEC) strain 26, 2011, the first human outbreak ever reported of a STEC strain that causes severe symptoms, including hemorrhagic colitis and acute kidney injury, and has the potential to cause death. The strain of STEC O104:H4 is also associated with STEC O104:H4 outbreaks. This strain has been found in cattle in the United States and in STEC O104:H4 in STEC O104:H4, which is also a Shiga toxin-producing *E. coli*.

CDC is not aware of any cases of STEC O104:H4 infection that have been reported in the United States. However, on April 27, 2017, three cases of STEC O104:H4 in the United States have been reported in persons who recently traveled to Germany. CDC is working with state health departments to learn more about these reported cases and other clinical cases for future characterization.

CDC has recommended that persons who have recently traveled to Germany and have signs or symptoms of STEC infection, or who have been exposed to a person who has recently traveled to Germany and has signs or symptoms of STEC infection, or who have been exposed to a person who has recently traveled to Germany and has signs or symptoms of STEC infection, should seek medical care and inform their provider about the outbreak of STEC infections in Germany and the importance of being tested for STEC infection.

Health Risk Communication Landscape

- ❑ Public health and patient safety events generate significant press
- ❑ Wide and varied audiences
- ❑ Our science is complex
- ❑ Numerous prevention recommendations
- ❑ Need for strong risk communications



Communicating during the Ebola Outbreak



First Patients With Ebola Treated in the U.S. – August 2014



- CDC began preparing U.S. hospitals in August
- ❑ Webinars
 - ❑ Web guidance
 - ❑ Resources for clinicians on Medscape
 - ❑ Regular conference calls with hospital associations, clinicians, public health departments

Multiple Patients Medically Evacuated To Emory and Nebraska Medical Centers



What We Were Up Against

- ❑ Fictional depiction of Ebola
- ❑ Rumors and stigma
- ❑ Fear of Ebola in the United States

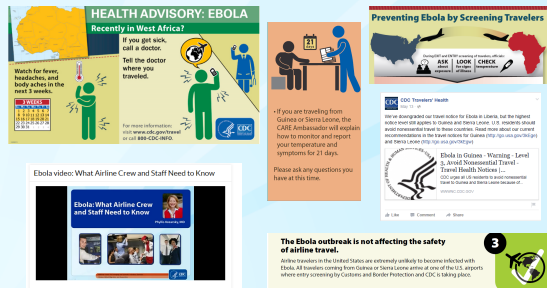


So We Fought Back

- ❑ Overly assured the American public
- ❑ Made overly definitive statements



Sharing our messages



CDC Guidance and Recommendations



In The Past:

- ❑ CDC created infection control guidance
- ❑ Facilities adapted guidance based on local needs and Personal Protective Equipment (PPE) availability
- ❑ Facilities responsible for providing PPE to staff
- ❑ Facilities responsible for training staff on PPE and infection control

CDC Guidance and Recommendations

What We Learned:

- ❑ People were not aware of or were not implementing the guidance
- ❑ Facilities were at various levels of preparedness
- ❑ Lack of training compounded by immense fear
- ❑ Appropriate PPE not always available or equipment was unfamiliar
- ❑ Needed fool-proof safeguards



Identify, Isolate, Inform: Emergency Department Evaluation and Management of Patients with Possible Ebola Virus Disease

1 Identify exposure history
 • Did the patient have contact with someone who had symptoms of Ebola virus disease (EVD) or who was confirmed to have EVD?
 • Did the patient have contact with someone who was in contact with someone who had symptoms of EVD or who was confirmed to have EVD?
 • Did the patient have contact with someone who was in contact with someone who was in contact with someone who had symptoms of EVD or who was confirmed to have EVD?

2 Identify signs and symptoms
 • Did the patient have a fever?
 • Did the patient have a rash?
 • Did the patient have muscle aches and pains?
 • Did the patient have a headache?
 • Did the patient have a sore throat?
 • Did the patient have a cough?
 • Did the patient have a runny nose?
 • Did the patient have a change in voice?
 • Did the patient have a change in taste or smell?

3 Isolate
 • If the patient has symptoms of EVD, isolate the patient in a private room with a bathroom.
 • If the patient has symptoms of EVD, wear personal protective equipment (PPE) when entering the room.
 • If the patient has symptoms of EVD, use a dedicated stethoscope and blood pressure cuff in the room.
 • If the patient has symptoms of EVD, use a dedicated thermometer in the room.
 • If the patient has symptoms of EVD, use a dedicated sphygmomanometer in the room.
 • If the patient has symptoms of EVD, use a dedicated otoscope in the room.
 • If the patient has symptoms of EVD, use a dedicated ophthalmoscope in the room.
 • If the patient has symptoms of EVD, use a dedicated otoscope in the room.
 • If the patient has symptoms of EVD, use a dedicated ophthalmoscope in the room.

4 Inform
 • Inform the patient of the results of the tests.
 • Inform the patient of the next steps in the evaluation and management of the patient.
 • Inform the patient of the need for isolation and PPE.
 • Inform the patient of the need for a dedicated stethoscope and blood pressure cuff in the room.
 • Inform the patient of the need for a dedicated thermometer in the room.
 • Inform the patient of the need for a dedicated sphygmomanometer in the room.
 • Inform the patient of the need for a dedicated otoscope in the room.
 • Inform the patient of the need for a dedicated ophthalmoscope in the room.

5 Manage
 • If the patient has symptoms of EVD, provide supportive care.
 • If the patient has symptoms of EVD, provide fluids and electrolytes.
 • If the patient has symptoms of EVD, provide pain relief.
 • If the patient has symptoms of EVD, provide antiemetics.
 • If the patient has symptoms of EVD, provide antidiarrheals.
 • If the patient has symptoms of EVD, provide antipyretics.
 • If the patient has symptoms of EVD, provide anticonvulsants.
 • If the patient has symptoms of EVD, provide antibiotics.

Ebola Virus Disease (Ebola)

What is Ebola virus disease (EVD)?
 • EVD is a severe illness caused by the Ebola virus. It is spread through direct contact with the blood or other body fluids of a person who has EVD. The virus is not spread through the air or by touching objects that have been in contact with the blood or other body fluids of a person who has EVD.

What are the symptoms of EVD?
 • The symptoms of EVD include fever, muscle aches, headache, sore throat, cough, runny nose, change in voice, change in taste or smell, and a rash. The symptoms usually appear 2 to 16 days after the person is infected with the virus.

How is EVD diagnosed?
 • EVD is diagnosed by testing the blood, urine, or other body fluids for the virus. The tests include enzyme-linked immunosorbent assay (ELISA), polymerase chain reaction (PCR), and virus isolation.

How is EVD treated?
 • There is no specific treatment for EVD. The treatment is supportive care, which includes fluids and electrolytes, pain relief, antiemetics, antidiarrheals, antipyretics, anticonvulsants, and antibiotics.

How is EVD prevented?
 • EVD is prevented by avoiding direct contact with the blood or other body fluids of a person who has EVD. It is also prevented by wearing personal protective equipment (PPE) when entering the room of a person who has EVD.

Checklist for Patients Being Evaluated for Ebola Virus Disease (EVD) in the United States

1. Identify exposure history

Did the patient have contact with someone who had symptoms of Ebola virus disease (EVD) or who was confirmed to have EVD?

Did the patient have contact with someone who was in contact with someone who had symptoms of EVD or who was confirmed to have EVD?

Did the patient have contact with someone who was in contact with someone who was in contact with someone who had symptoms of EVD or who was confirmed to have EVD?

2. Identify signs and symptoms

Did the patient have a fever?

Did the patient have a rash?

Did the patient have muscle aches and pains?

Did the patient have a headache?

Did the patient have a sore throat?

Did the patient have a cough?

Did the patient have a runny nose?

Did the patient have a change in voice?

Did the patient have a change in taste or smell?

3. Isolate

If the patient has symptoms of EVD, isolate the patient in a private room with a bathroom.

If the patient has symptoms of EVD, wear personal protective equipment (PPE) when entering the room.

If the patient has symptoms of EVD, use a dedicated stethoscope and blood pressure cuff in the room.

If the patient has symptoms of EVD, use a dedicated thermometer in the room.

If the patient has symptoms of EVD, use a dedicated sphygmomanometer in the room.

If the patient has symptoms of EVD, use a dedicated otoscope in the room.

If the patient has symptoms of EVD, use a dedicated ophthalmoscope in the room.

4. Inform

Inform the patient of the results of the tests.

Inform the patient of the next steps in the evaluation and management of the patient.

Inform the patient of the need for isolation and PPE.

Inform the patient of the need for a dedicated stethoscope and blood pressure cuff in the room.

Inform the patient of the need for a dedicated thermometer in the room.

Inform the patient of the need for a dedicated sphygmomanometer in the room.

Inform the patient of the need for a dedicated otoscope in the room.

Inform the patient of the need for a dedicated ophthalmoscope in the room.

5. Manage

If the patient has symptoms of EVD, provide supportive care.

If the patient has symptoms of EVD, provide fluids and electrolytes.

If the patient has symptoms of EVD, provide pain relief.

If the patient has symptoms of EVD, provide antiemetics.

If the patient has symptoms of EVD, provide antidiarrheals.

If the patient has symptoms of EVD, provide antipyretics.

If the patient has symptoms of EVD, provide anticonvulsants.

If the patient has symptoms of EVD, provide antibiotics.

**CDC provided
checklists and
algorithms for
use in busy clinical
care settings**

Needed a system to screen and direct travelers

http://www.washingtonpost.com/national/health-science/dallas-ebola-case-spurs-concern-about-hospital-readiness/2014/10/03/4afa10b2-4b30-11e4-a046-120b9955cca_story.html

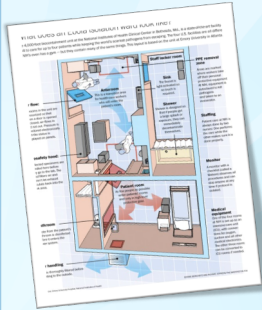
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CDC Sends Rapid Ebola Preparedness Teams



- ❑ Dec 2, 2014 CDC began sending "Rapid Ebola Preparedness Teams" to hospitals around 5 airports that received the most travelers from West Africa
- ❑ Visited more than 50 hospitals by Dec 2, 2014

New Hospital Preparedness Approach



"What we see happening is the CDC can issue a thousand guidelines, but hospitals can choose to follow or not follow whatever guidelines they want. That's been a major roadblock to developing a national coordinated response to Ebola. For weeks, we heard assurances that the hospitals were prepared."

— Charles Idelson, Spokesperson for National Nurses United, USA Today, Oct 14, 2014


White House Announces 35 U.S. Hospitals Designated To Handle Ebola, Dec 2, 2014




Currently 55 Ebola Treatment Centers: <http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/current-treatment-centers.html>

CDC Worked Quickly To:



Protect Our Borders





Train Healthcare Workers



Launched PPE Guidance With NYC Training Event

Turning the Tide

“What’s going to kill this disease is knowledge, is training, is preparation. Having the right protocols, having the right knowledge, having the right equipment and doing it right and making sure we make no mistakes. Don’t say this is not my job, not my position. It’s important to everyone, in every position. Train yourself, pay attention, learn. That’s the best weapon we have.”

– Andrew Cuomo, NY Governor

Making Training More Accessible

Need Education and Training That Is

- ☐ Action-oriented
- ☐ Modular
- ☐ On-demand
- ☐ Mobile-accessible
- ☐ Endorsed by key stakeholders
- ☐ Available in multiple formats
- ☐ Consistent, clear messaging

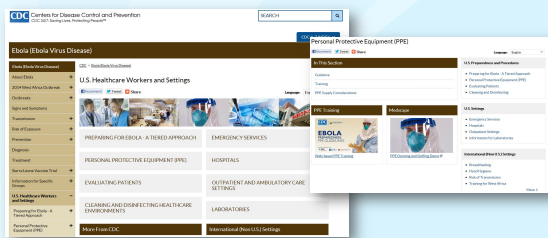


CDC announces smartphone coaching app for Ebola workers

By GON Staff Apr 17, 2015

<http://gon.com/articles/2015/04/17/cdc-ebola-training-app.aspx>

Ensuring Accessibility Of Resources



Ebola Healthcare Worker Webpages
7.5 Million Views
In 2014

Our Initial Reach

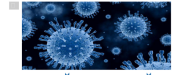
- **160 webinars, reaching more than 159,000 healthcare workers**
- **Online training videos viewed more than 862,000 times for more than 6,470 hours of training**
- **More than 6,500 people trained through in-person events, more than 20,000 via live webcast**
- **460 healthcare workers from 87 healthcare systems and 37 designated Ebola treatment centers trained by Emory/Nebraska**



When Communication Efforts Succeed

Twitter's Surprising Reaction to the Meningitis Outbreak

5.1k



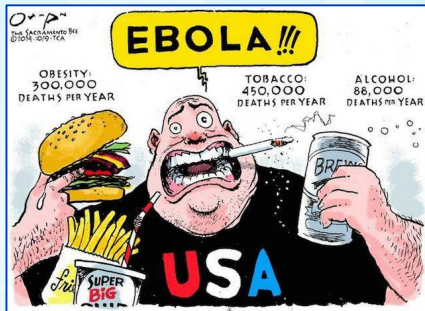
Fedblog
Government Executive Editor in Chief Tom Donohue, along with other editors and staff correspondents, look at the federal emergency room.

Meningitis, Twitter and Federal Brands



- "When a dangerous disease outbreak hits social media, the connected generation trusts some governmental agencies more than others, and Twitter users tend not to panic."
Mashable.com - October 16, 2012
- "[CDC has] done an excellent job in communicating this story to clinicians and patients a like. From the website, to FAQs, to clinician webinars...the CDC has been transparent, clear, direct and timely."
Reflections On Contemporary Issues In The Fields Of Business Continuity Planning & Emergency Management - October 20, 2012
- "When it comes to a public health crisis, the public apparently wants to know what the Centers for Disease Control and Prevention has to say"
Fedblog - October 16, 2012

Looking Ahead After Ebola



Sacramento Bee 2014



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