Case Study:
The U.S. Centers for Disease Control and Prevention’s (CDC) Social Media Messaging and Hurricane Sandy

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Learning Objectives

- Describe how social media can be an important channel for government agencies to share emergency response information.

- Discuss how use of social media during an emergency response can relay critical, timely information while building your follower audience and establishing your profile or “brand” as a topic expert.

- Recognize that developing relevant content in advance is a key aspect of successfully responding to emergencies or natural disasters via social media.
NCEH/ATSDR Mission

- NCEH protects people’s health from threats found in the air we breathe, the water we drink, and the world that surrounds us.
- ATSDR works to protect people from toxic chemical exposures.
CDC Digital Media Strategy

Provide CDC content when, where, and how users want it.
Purpose

- Complement traditional health communication
- Elevate environmental health as a topic on social media
- Increase trust/credibility of NCEH/ATSDR
- Leverage another mechanism for community engagement, especially in times of emergency
When disaster strikes…

- CDC plays a role in preparing the nation for all types of public health threats, including natural disasters.

- When a disaster occurs, CDC responds to and supports national, state, and local partners to save lives.

- NCEH/ATSDR works with state, local public health departments to relay preparedness messaging, improve response to chemical emergencies, and more.
NCEH/ATSDR on Twitter

Environmental Health
@CDCEnvironment

Info, tips, and news you can use about ways your environment and your health are connected. cdc.gov/nceh/ & atsdr.cdc.gov
Atlanta, GA · blogs.cdc.gov/yourhealthyour...
Social Media and Emergencies

- Growing number of web-enabled mobile devices.
  - Currently 137 million; 192 million by 2016 (projected)
  - In 2012, the number of mobile-connected tablets grew 2.5 times to 36 million, and each tablet generated 2.4 times more traffic than the average smartphone.
  - There are more mobile devices on Earth than people.

Social Media and Emergencies

- Facebook, Twitter among top app downloads.
  - Facebook named most downloaded app of all time

- Social media use rises during disasters as people seek immediate and in-depth information

Social media were the public’s first source of disaster information.
- Twitter played a key role generating the first photos of the Tuscaloosa tornado devastation.

The public used social media to help find loved ones and offer support.
- Facebook page named "Joplin, Mo. Tornado Recovery" gained 123,000 members in the days after the tornado and was used to mobilize support for survivors and help locate family members.

Hurricane Sandy, 2012

- Deadliest and most destructive storm of the 2012 Atlantic hurricane season
- $65 billion in damage
- Affected 24 states, with severe damage in New Jersey and New York

Hurricane Sandy, 2012

- Facebook and Twitter were key venues for information sharing.
  - Sandy became the number two most talked about topic on Facebook during 2012.
  - 1.1 million people mentioning the word “hurricane” on Twitter within a 21-hour time period

Hurricane Sandy, 2012

- Instagram played a major role in information sharing
  - Ten storm-related pictures per second posted on the site.
- The public turned to Internet-based telephone services to connect with friends and loved ones after the disaster.
  - Skype received a 122% spike in traffic after the storm.

Hurricane Sandy, 2012

- Social media also venue for misinformation.
  - Viral photo of clouds over New York City were altered.

Q: What do I need to do to be ready for a hurricane/ ice storm/ flood/ tornado/ landslides/ earthquake/ wildfires/ extreme heat/ extreme cold/ zombie apocalypse?

To be ready for an #emergency, #CDC recommends 3 things: 1) Get a kit 2) Make a plan and 3) Be prepared. #CDCchat

First, you should have an #emergency kit in your house. #CDCchat

Your #emergency kit should have water, non-perishable food, and more. Full details here: http://go.usa.gov/0a3 #CDCchat (Links to full page on creating an emergency kit: http://emergency.cdc.gov/preparedness/kit/disasters/ )

Other items for #emergency kit include medicines, battery-powered radio. Full details here: http://go.usa.gov/0a3 #CDCchat

Next, make a plan. For example, pick a meeting place for your family to regroup if you are separated. #CDCchat

Identify emergency contacts like police and fire departments. #CDCchat

Plan your evacuation route, including multiple routes you would take. Helpful if you have to take shelter fast. #CDCchat

Stay informed! Your battery-powered radio may be your only source of information. #CDCchat
**Process**

- **Coordinated messaging across CDC teams**

<table>
<thead>
<tr>
<th>Phase 1: Immediately preceding landfall to 24 hours post-storm:</th>
<th>Phase 2: 2-3 days post-storm/ returning home:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Evacuation guidance</td>
<td>• Power outage risks</td>
</tr>
<tr>
<td>• Flood safety</td>
<td>• Food and water safety</td>
</tr>
<tr>
<td>• Power outage risks</td>
<td>• Worker safety</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Phase 3: 3-7 days post-storm/ environmental hazards:</th>
<th>Phase 4: 2-4 weeks post-storm/ short term recovery:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Vector control</td>
<td>• Coping with trauma</td>
</tr>
<tr>
<td>• Injury prevention</td>
<td>• Mold remediation</td>
</tr>
<tr>
<td>• Sanitation</td>
<td>• Protection from chemicals</td>
</tr>
</tbody>
</table>
Process

- Facebook posts
  - When returning home after a disaster, be healthy and safe. Prevent CO poisoning by keeping generators outdoors, at least 20 feet away. Eat and drink only food and water you know is safe. Clean your home properly to stop mold. Learn more here: [http://go.usa.gov/0CP](http://go.usa.gov/0CP)

- Spanish content
  - Si #Issac trae inundaciones a su área, debe estar preparado. Más información: [http://go.usa.gov/rUmd](http://go.usa.gov/rUmd)
Process

- **SMS**
  - You can text SANDY to 87000 for alerts on Hurricane #Sandy. Stay informed!
  - 242 subscribers
  - 29 messages sent between Oct. 31, 2012 and Nov. 12, 2012
  - Total number of messages sent, received: 5,665.

- **Twitter chat w. @DrRichardBesser (ABC News)**
  - Reached potential audience of 8,831,000+
Outcomes

“Retweets” of content from CDC channels, partners increased reach of messaging
Outcomes

- Total of 5,571 CDC related tweets, retweets during Sandy from Oct. 24-Nov. 20 from the following five CDC Twitter handles:
  - Dr. Chris Portier, NCEH (@CDC_DrCPortier)
  - Dr. Tom Frieden, CDC Director (@DrFriedenCDC)
  - OPHPR/DEO/ERCB (@CDCemergency)
  - OPHPR/OD (@CDCReady)
  - Dr. Georgina Peacock, NCBDDD (@DrPeacockCDC)

Source: Radian 6 analysis
Outcomes

- Potential reach of 130,823,818
- Adjusted reach was 8,390,077
  - estimate when manually adjust for followers that likely received multiple tweets and remove those duplicates
- Adjusted reach without the 5 major CDC sources was 6,986,989

Source: Radian 6 analysis

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Outcomes

- **Increase in Web Traffic**
  - messages containing links to information on:
    - injury prevention following a storm resulting = 877 web site visits
    - staying safe and warm indoors when the power is out = 1,932 visits
    - safe clean-up of mold following a flood numbering = 14,881 visits

Clean Your Home and Stop Mold

- Take out items that have soaked up water and that cannot be cleaned and dried.
- Fix water leaks. Use fans and dehumidifiers and open doors and windows to remove moisture.
- To remove mold, mix 1 cup of bleach in 1 gallon of water, wash the item with the bleach mixture, scrub rough surfaces with a stiff brush, rinse the item with clean water, then dry it or leave it to dry.
- Check and clean heating, ventilating, and air-conditioning systems before use.

www.cdc.gov/features/afteraflood/
@therizinosaur There's mold in my bedroom. Any ideas how to fix it? Like latex paint?

@therizinosaur Try this link for mold cleanup info: ow.ly/fp5Hd
Lessons Learned/ Challenges

- Strategize/ plan content in advance (research #hashtags!)
  - By establishing a reputation as a trusted source of information prior to emergency, officials will be viewed as preferred sources of information during an emergency

- Share content and cross-promote when practical

- Engage!

- Challenge/ future questions:
  - Assessing how many people practically used the information

Twitter Alerts

- New in late 2013
- Users can opt in to receive alerts during emergencies

CDC Emergency 
@CDCEmergency FOLLOWS YOU
CDC Emergency Preparedness and Response: increasing the nation's ability to prepare for and respond to public health emergencies.

Activate Alerts from @CDCEmergency
Thank you!

Environmental Health
@CDCEnvironment
Info, tips, and news you can use about ways your environment and your health are connected. cdc.gov/ncenh & atsdr.cdc.gov
Atlanta, GA · blogs.cdc.gov/yourhealthyour...

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