Evaluation of News and Social Media Response to the Outbreak of Fungal Meningitis and Other Infections

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2012 Fungal Meningitis Outbreak Information Goals

- Primary communication focus on informing clinicians and notifying patients
- Non-patient general public was a secondary audience
Communication Strategy Starts with Analysis of the Public Conversation

- Consistent approach to gathering and analyzing relevant news stories and social media posts on a daily basis
  - Traditional news media = Internet, TV, and print; national outlets, top 25 US cities, and select local sources
  - Social media = Twitter, Facebook, and blogs

- Purpose is to identify
  - Major public health themes
  - Rumors
  - Public health information gaps
  - Emerging issues
  - CDC and other US gov’t agency mentions
All Media Monitoring is Not Created Equal

A common approach to meeting different information needs:
Using news media stories or social media posts as raw data

<table>
<thead>
<tr>
<th>Event Surveillance</th>
<th>Situation Awareness</th>
<th>Communication Surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also called “case finding or “case ascertainment”</td>
<td>What is happening, where is it, and who is affected?</td>
<td>How is event being portrayed?</td>
</tr>
<tr>
<td>Looking for new outbreaks or cases</td>
<td>Informs overall response strategy during public health emergencies</td>
<td>Significant rumors or misinformation?</td>
</tr>
<tr>
<td>Informs routine public health activities or emergency epi/surveillance</td>
<td>Points causing confusion?</td>
<td>Points causing confusion?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informs emergency communication strategy</td>
</tr>
</tbody>
</table>
Developing Communication Strategy: Knowing the Communication Environment

- Search
- Identify
- Compile
- Analyze
- Share
Social Media Engagement in the Communication Environment

Agency Messages

- Followers
- Posts
- "Likes"
- Shares
- Conspiracy Theories, Rumors
- Emerging Issues
- Information Seeking
- Irrelevant Posts
2012 Fungal Meningitis Outbreak News and Social Media Communication Issues

- Explaining exposure and risk
- Identifying any actions that need to be taken
- Ensuring that outbreak information was up-to-date and consistent
- Sharing new information as it emerged
Twitter Interest in the First Week: Meningitis, H7N9, and 2013 Seasonal Flu

- MERS (no US cases) < 4,000
- Cyclosporiasis (no deaths) < 1,200
Meningitis News Media, Twitter, and CDC Web Traffic during Response Phase

10/4  10/6  10/8  10/10  10/12  10/14  10/16  10/18  10/20  10/22  10/24  10/26  10/28  10/30  11/1  11/3  11/5  11/7

- News Stories
- Twitter
- Web page views

- Feds announces 13K may be at risk
- FDA “raids” facility
- MA Gov holds press conf
- Web user survey
CDC Website User Survey: Cornerstone of Public Communication

- Who is coming to the website?
  - 35% received or knew someone who received injection
  - 24% health care providers
  - 17% general interest
  - 6% public health practitioner

- What information were they seeking?
  - 55% geographic information on cases and deaths
  - 54% updates on the investigation
  - 47% names of facilities who dispensed injections
  - 27% symptoms
  - 24% clinical guidance for diagnosis
  - 20% clinical guidance for treatment
CDC Website User Survey: Cornerstone of Public Communication

- Was the site well organized?
  - 94% very or somewhat well organized
  - 5% somewhat disorganized

- Did they find what they were looking for?
  - 63% found all of the information they wanted
  - 31% found some, but not all, of the information
  - 6% found none of the information
## Total Response Communication Volume

**October 4 – November 8, 2012**

<table>
<thead>
<tr>
<th>Category</th>
<th>Volume</th>
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</thead>
<tbody>
<tr>
<td>Web page views + direct inquiries to CDC</td>
<td>862,351</td>
</tr>
<tr>
<td>News media stories (US)</td>
<td>427,278</td>
</tr>
<tr>
<td><strong>Social media posts</strong></td>
<td>289,937</td>
</tr>
<tr>
<td>• Twitter</td>
<td>244,099</td>
</tr>
<tr>
<td>• Facebook</td>
<td>34,643</td>
</tr>
<tr>
<td>• Blogs</td>
<td>11,195</td>
</tr>
</tbody>
</table>
Final Analysis: Media and Web Success

- No major rumors emerged; public conversation stayed focused on actual risk and appropriate protection steps.
- Agency was viewed as “responsive” to concerns because of being available to reporters and using social media to engage with individuals.
- The website was a valuable and effective information outlet for clinicians and patients.
- Actress Eva Longoria asked her Twitter followers (5 million) to post updates on the outbreak; she later posted on the value of CDC’s website.
Ongoing Challenges

- Need to quickly find, analyze, and report findings on high volume of data, with limited time and resources
- Accelerating pace of new social media platforms and shifting involvement of different populations
- Limited evidence on how social media engagement affects health-related behaviors
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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.