ePublic Health
- the 2011 EHEC case

ASEF-ASAP workshop on effective risk communication for emergencies and the role of social media

3-4 June, Bali, Indonesia
Hans C Ossebaard & Lisette van Gemert-Pijnen
Dutch National Institute for Public Health and the Environment (RIVM)

- national health and care portal [www.kiesBeter.nl](http://www.kiesBeter.nl)

- research in: consumer health informatics, eHealth, public health 2.0
University of Twente

- IGS Center for eHealth Research and Disease management

- Dept. of Psychology,
  Health and Technology

- EUR Safety: crossborder prevention of healthcare associated infections

UNIVERSITY OF TWENTE.
National Health Care Institute (CVZ)

- Institute for Health Care Quality
- eHealth and quality of care
University Medical Centre Groningen

- Medical microbiology
- http://www.rug.nl/research/medical-microbiology/?lang=en
Tasks of RIVM

- Policy support
- National coordination
- Prevention and intervention programmes
- Provision of information to professionals and the general public
- Knowledge development and research
- Support for Inspectorates and other regulatory authorities
- Crisis management and response
Centre for Infectious Disease Control (RIVM)

- Policy, Management and Advice
- Epidemiology and Surveillance Unit
- Laboratory for Infectious Diseases and Perinatal Screening
- Laboratory for Zoonoses and Environmental Microbiology
- Vaccinology Unit
- **National Coordination Centre for Outbreak Management**
  - Advice to professionals in the field
  - Formulation of guidelines infectious disease control
  - Crisis management and coordination
  - Communication policy
Guidance and coordination

- Outbreak Management Team
- Council of Experts
- Administrative Advisory Board
www.crisis.nl

Via crisis.nl geeft de overheid u informatie over een ramp of ernstige calamiteit.

Op dit moment is crisis.nl niet ingezet

Speelt er toch iets in uw omgeving? Raadpleeg uw regionale omroep of de website van uw gemeente voor meer informatie.

Voorbereid zijn

Als zich een noodsituatie voordoet, is het goed als u weet wat u moet doen. Hier vindt u algemene tips waarmee u beter bent voorbereid.

http://www.nederlandveilig.nl/noodsituaties

Print
Delen op Hyves
Delen op Facebook
Delen op Twitter
Delen op LinkedIn
ePublic health

Health protection and improvement through the application of web-based and mobile technologies to support

- Education
- Promotion of healthy lifestyles
- Research for disease and injury prevention
ePublic health core areas

1. *Behavioral Science/Health Education*
2. Biostatistics
3. Emergency Medical Services
4. Environmental Health
5. *Epidemiology*
6. Health Services Administration/Management
7. *International/Global Health*
8. Maternal and Child Health
9. Nutrition
10. Public Health Laboratory Practice
11. Public Health Policy
12. *Public Health Practice*
ePublic health

- Online institutional information (www.rivm.nl > 1998)
- Policy information (Zorgatlas, Nationaal Kompas, informational products)
- Comparative choice information (healthportal kiesBeter.nl > 2005-2013)
- Health, safety and risk-communication
- Social media (> 2009)
- Infodemiology (> 2009)
Global urgencies eHealth

- ↑ healthcare expenditures
- ↑ long-term conditions + multimorbidity
- prevention + control infectious diseases
- ageing
- consumerism
- socio-technological conditions
Information and communication tech

✔ Cheap
✔ Ubiquitous
✔ Many-to-many
✔ Fashionable
✔ Real time
✔ *Participative/Social*
Web 2.0
E. Coli O104, 2011 (EHEC/STEC)

- May-June 2011 Outbreak in Germany: 3816 EHEC; 845 HUS; 40 deaths
- NL: 11 EHEC; 4 HUS; 0 deaths
- Extensive media pressure
- RIVM:
  - news updates on number of infections
  - message: no risk for Dutch food
  - food safety protocol
UT-RIVM Research: social media and EHEC outbreak 2011

Objective

> Assess information behaviour and media use of citizens during an outbreak

> Recommend health organizations i.c. social media and communication strategy

Method

Four-week electronic diary study (n=18) during outbreak in Germany during outbreak (June 2011)
UT-RIVM Research: social media and EHEC outbreak 2011

Results

- Internet (web sites) most popular medium for EHEC information
- Social media hardly used
- Some dissatisfaction with information provision

Note: Left number below topic = number of searches; right number below topic = number of unique participants who conducted a search on this topic.
UT-RIVM Research: social media and EHEC outbreak 2011

Conclusions
- Social media (except wiki’s) not seen as suitable or reliable for information
- Social media not seen as suitable or reliable for communication with friends

Discussion
- Health organizations should precisely use social media for specific target groups if source is credible
- Role of wikis
- Scale defines needs
UT-RIVM Research: social media and EHEC outbreak 2011

Recommendations (Van Velsen et al. 2012)

1. Keep citizens updated on the status of the outbreak
2. Help citizens in protecting themselves
3. Communicate the end of the outbreak
4. Provide unequivocal information
5. Information needs vary with distance to epicenter
Related research

Selection of channel is vital and depends on characteristics of target group:

- U.S.A. (Avery, 2010)
- Malaysia, (Wong, 2010)
- Netherlands (Bults et al. 2011)
- Japan (Conway et al. 2010)
Use of social tools in emergencies (US)
Modern risk communication

● What is actually happening?

● What are the authorities doing?

● What can you do?
Modern risk communication

● Emotion and empathy
● Understanding of social media
Stakeholder network building

- Collaboration in ‘peace’ time
- Potential of 2.0 technology
- Brand loyalty
Example (1)
Willkommen bei - Willkommen auf dem Informationsportal der Projekte EurSafety–Health–Net und MRSA–Net

Euregionales Netzwerk-Portal für Patientensicherheit und Infektionsschutz
Figure 1: Schematic overview of the effects of antibiotics

Susceptible Population → Resistant Clones → Spread

Bad Antibiotic Use → Antibiotic Stewardship

Bad Hygiene Measures → Infection Control

EURSAFETY HEALTH-NET
eursafaty.eu
Antimicrobial resistance

● AMR kills
● AMR hampers the control of infectious diseases
● AMR increases the costs of Healthcare
● AMR hampers the Healthcare of society and economy
● AMR a worldwide problem, closely linked to medicine, veterinary, agriculture, horticulture and community; cross-resistance
● A wicked problem..so far national and global responses have been inadequate (Bull WHO2011:89;390-392) and multi-strategies lack so far..
One health

- Zoonotic diseases
- Post-antibiotic era?
- Sustainable medicine

One Health Defined

“One Health is the collaborative effort of multiple disciplines - working locally, nationally, and globally - to attain optimal health for people, animals, and our environment.”

AVMA One Health Initiative Task Force 2008
One health

- Collaboration between physicians and veterinarians
- Trust
- Transparency
Example (2)

Than

Now
Twitter launch: July 2006
Est. users: 200.000.000

Content tweets:

- “Pointless babble”: 40%
- Conversational: 38%
- Pass-along value: 9%
- Self-promotion: 6%
- Spam: 4%
- News: 4%
Twitter during crises: appreciation

- Active tweeters talk more about crisis news than non-tweeters or bloggers
- People talk about a newspaper article or a blog more than about tweets
- Tweet + blog = reputation gain
Twitter during crises: what about?

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
<th>Tweets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enlightenment</td>
<td><em>Flight disruptions in Europe get even worse: Thick drifts of volcanic ash blanketed... <a href="http://bit.ly/8YuCz2">http://bit.ly/8YuCz2</a></em></td>
<td>23,5%</td>
</tr>
<tr>
<td>Personal</td>
<td><em>Woke up to the news that there was an earthquake in China &amp; a volcano in Iceland</em></td>
<td>14,7%</td>
</tr>
<tr>
<td>Problem understanding</td>
<td><em>Iceland farmers try to save herds from ash: <a href="http://bit.ly/93Cr8N#msnbc">http://bit.ly/93Cr8N#msnbc</a></em></td>
<td>12,2%</td>
</tr>
<tr>
<td>Factual data (e.g. numbers, figures)</td>
<td><em>800 flee as Iceland volcano rumbles <a href="http://bit.ly/blzK2p">http://bit.ly/blzK2p</a></em></td>
<td>11,6%</td>
</tr>
<tr>
<td>Humour</td>
<td><em>Iceland, good luck and please turn off your volcano before I fly to Europe in two weeks!</em></td>
<td>8,1%</td>
</tr>
</tbody>
</table>
Social media in peace time: what patients do

- finding information,
- feeling supported,
- maintaining relationships with others,
- experiencing health services,
- learning to relate the story,
- visualizing disease,
- affecting behavior.

(Ziebland, 2012)
EHEC related tweets (ECDC)
EHEC related tweets (ECDC)

@ECDC_EU


Mentioned in this Tweet

WHO_Europe: WHO/Europe is one of WHO's 6 regional offices around the world. It serves the WHO European Region, comprising 53 countries.

Retweeted by DaspinaSpanou
Twitter @ CDC Atlanta

> Different feeds:
   - general (@CDCgov)
   - specific subjects (@CDCFlu)

> Always in combination with other new media:
   - eCards
   - Image sharing
   - Mobile services
   - Podcasts
   - Social networks (Facebook)

http://www.bt.cdc.gov/cerc/
Twitter guidelines

Preparation:

1. Define clear objectives (SMART)
2. Define target population(s)
3. Who is in charge (stand-in!)
4. Get necessary permissions
Twitter guidelines

Twittering:

1. Make an account
   - profile name: subject+ organization (max. 20 signs)
   - e-mailaddress: group mailbox

2. Tweet
   - length: max. 120 sign (so people can retweet)
   - short URLs (e.g., tinyurl.com)
   - use #hashtags
Twitter guidelines

Twittering:

3. Draw up a Twitter-plan
   - min. Tweets per week
   - at least one Tweet per week

4. Promote your Twitterfeed
   - hyperlink in education materials
   - identify important partners and follow them
   - retweet important partners
Social media for public health orgs

- Used to generate content
- Used to monitor what’s going on
- Used to provide timely information

  + Immediate/real time
  + Dynamic relationships
  + Dispel rumours
  + Incorporate links to website

- Require resources for maintenance (staff/technology/money)
- Have limitations
- Mistrust
- Need continuous monitoring
Social media for people

- Online social participation / interaction
- Generating content (text, image, sound)
- Sharing opinions
- Participating in polls
- Personal recommendations/ratings
Reflection

- What strategic choices to make?
- Learning from history
- What role of social media in communication strategy