

Communications Strategies in Radiation Disasters



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October 5, 2011

Radiation Disasters are Different

- Radiation is:
 - Invisible
 - Silent
 - Odorless
 - Can only be detected with specialized equipment
- Radiation concepts, terms, and risks are poorly understood by the public
 - Fear
 - Fatalism



Japan-2011

"I still have no idea what the numbers they are giving about radiation levels mean. It's all so confusing. And I wonder if they aren't playing down the dangers to keep us from panicking. I don't know who to trust."

- *Tsugumi Hasegawa, age 29, living with her young daughter in a shelter with 1,400 other people on the outskirts of Fukushima city, 80 km (50 miles) away from the plant*

*From "Japan's efforts to ease nuke crisis hit setback", Mary Yamaguchi, AP
3/20/2011*

Communication Goals

Effective communication in radiation emergencies can:

- Decrease illness, injury, and death
- Facilitate response and recovery efforts
- Avoid misallocation of limited resources
- Reduce rumors
- Minimize medically unnecessary self-referrals to hospitals and other critical facilities

Key Communications Questions

- Are we meeting audience needs for information?
- How can we bridge the gap between technical information and risk perception?
- How can we describe radiation in ways that promote **responsible** public action?



Key Target Audiences

- Public
 - American Citizens living in Japan
 - American Citizens in U.S.
- Public Health Professionals
- Clinicians



Message Development

- Few differences in higher vs. lower education level
- Professional responders will have the same concerns as members of the public
- Non-English speakers and other special populations will have specific communication needs

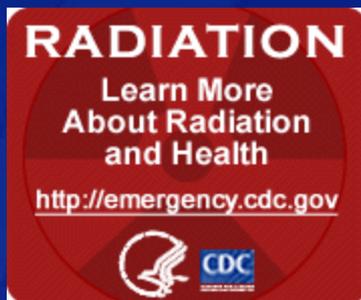


Message Delivery Methods

- Website
- Mobile site
- Twitter
- Facebook
- Badges
- Widgets
- Content Syndication
- Blogs



The screenshot shows the CDC's Facebook profile. The cover photo features the CDC logo and the slogan "SAFER • HEALTHIER • PEOPLE™" with the text "Your Online Source for Credible Health Information". The page has 81,626 likes. A recent post from CDC, dated Friday at 3:58pm, contains the following text: "No one in the United States needs to take Potassium Iodide (KI) or iodine supplements in response to the radiation releases in Japan. Taking KI can be harmful to your health. CDC and other agencies are closely tracking health effects." Below the text is a link to "CDC Radiation Emergencies | Potassium Iodide (KI) emergency.cdc.gov" and a note that the information is provided by the Centers for Disease Control and Prevention (CDC). The post has 105 likes.



RADIATION
Learn More
About Radiation
and Health
<http://emergency.cdc.gov>

The graphic is a red square with rounded corners. It features the CDC logo at the bottom right and a stylized eagle logo at the bottom left.



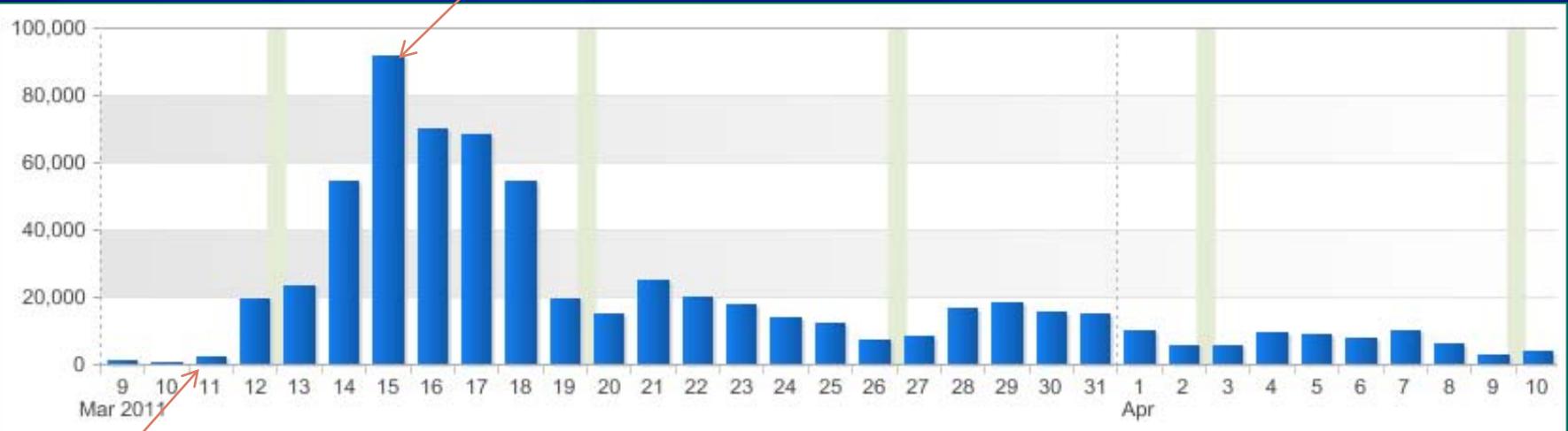
CDCemergency CDC Emergency
RT @CDCemergency NO ONE in US needs KI b/c of Japan nuclear
nuclear pwr plants, KI has serious health risks, #japan
<http://go.usa.gov/4hR>
19 hours ago

The image shows a tweet from the account CDCemergency. The tweet text is: "RT @CDCemergency NO ONE in US needs KI b/c of Japan nuclear nuclear pwr plants, KI has serious health risks, #japan http://go.usa.gov/4hR". The tweet was posted 19 hours ago.

Radiation Emergencies Website

<http://emergency.cdc.gov/radiation>

91,510 Page Views
(Highest Traffic Ever)



Japan Earthquake
and Tsunami

Website User Survey Results (3/14-3/15)

□ Who was visiting the website?

1. Live in area that could have similar events in the future
2. Clinician/Healthcare provider
3. Have loved ones in affected area
4. Live in affected area in Japan

□ Why were people visiting the site?

1. Latest news in Japan
2. Basic facts about radiation
3. Protective actions
4. Potassium Iodide

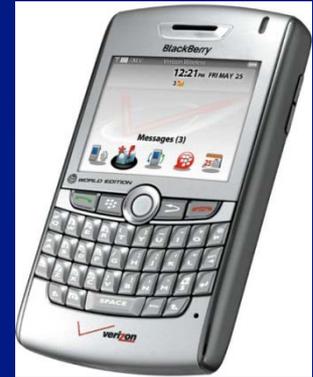
Referrals

- ❑ **Federal websites**
- ❑ **United States Embassy in Japan**
- ❑ **News sites**
- ❑ **State websites (especially west coast)**
- ❑ **Social Media**
 - Twitter
 - Bloggers
 - Wikipedia
 - Facebook

CDC Mobile Site

m.cdc.gov

- ❑ **Mobile site lagged traffic (usually less than 10 a day)**
 - Many smartphones can view media-rich web content
 - Not as much content on mobile site
 - Existing content stripped down
- ❑ **Radiation Emergencies**
 - Nuclear Regulatory Commission (link)
 - Department of Homeland Security (link)
 - Radioisotope Brief: Iodine-131 (I-131)
 - Acute Radiation Syndrome (ARS): Fact Sheet for the Public
 - Potassium Iodide (KI)
 - Prussian Blue



Twitter: @CDCEmergency

❑ Tweets:

- Don't take KI (Potassium Iodide) (3/18/2011)
 - Protect Yourself and Your Family (3/25/2011)
 - Be Prepared (3/27/2011)
- ❑ **Added over 7,000 followers over the course of the event**
 - ❑ **1,259,796 total followers as of 4/14/2011**
 - ❑ **“Top Tweet” on 3/21/2011**



CDCEmergency CDC Emergency

RT @CDCEmergency NO ONE in US needs KI b/c of Japan nuclear nuclear pwr plants, KI has serious health risks, #japan

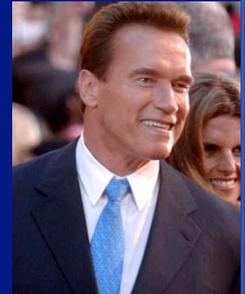
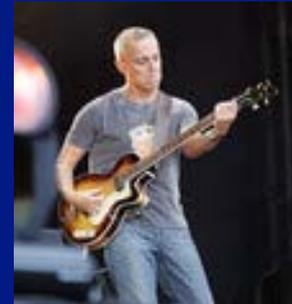
<http://go.usa.gov/4hR>

19 hours ago

Twitter: @CDCEmergency

□ Famous Followers

- Al Gore
- Ellen DeGeneres
- Jim Cantore
- Curt Smith
- Arnold Schwarzenegger



Facebook

- 3 Facebook Status Updates
 - 3/17/2011: Travel Advisory
 - 3/18/2011: KI Warning
 - 3/21/2011: Web Tools
- CDC Emergency Preparedness Facebook page launched 5/16/2011

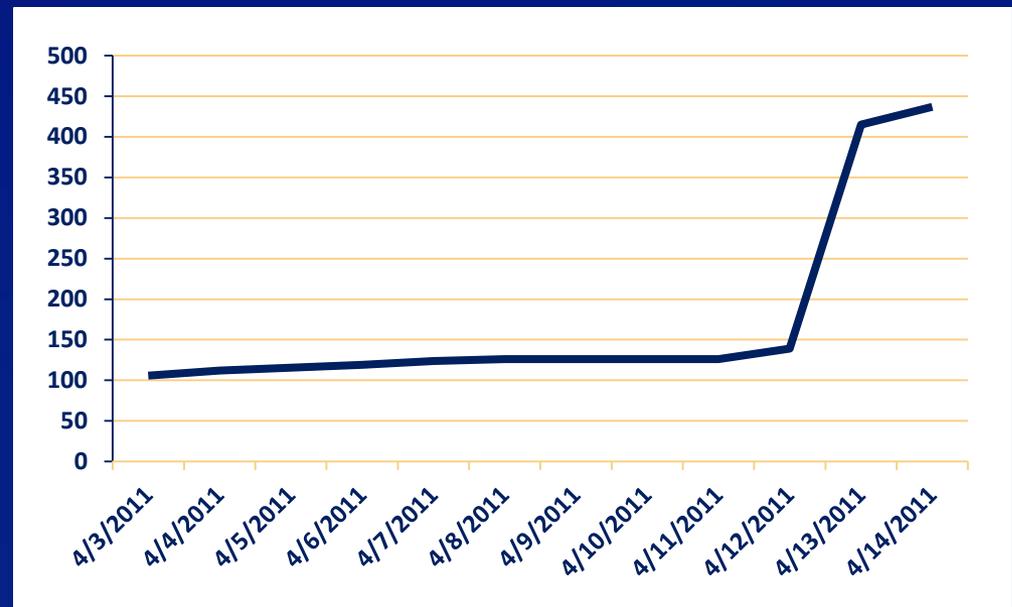
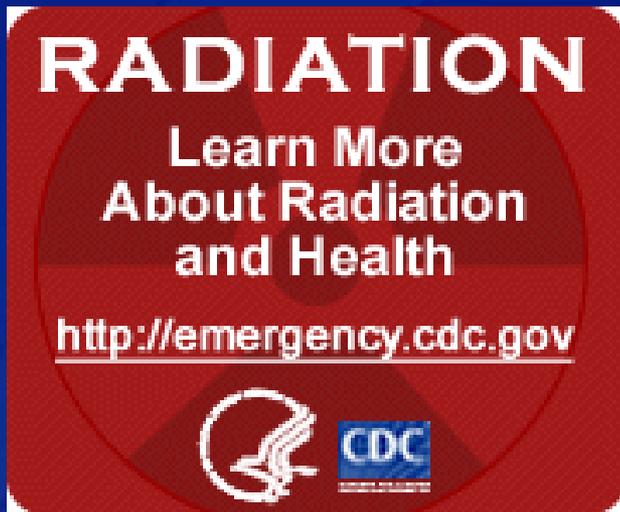
The screenshot shows the CDC Facebook page interface. The header includes the Facebook logo and a search bar. The CDC profile picture and cover photo are visible. The main content area features a post from the CDC dated Friday at 3:58pm. The post text reads: "No one in the United States needs to take Potassium Iodide (KI) or iodine supplements in response to the radiation releases in Japan. Taking KI can be harmful to your health. CDC and other agencies are closely tracking health effects." Below the text is a link to "CDC Radiation Emergencies | Potassium Iodide (KI) emergency.cdc.gov" and a note that the information is provided by the Centers for Disease Control and Prevention (CDC). The post has 105 likes and a share button.

This screenshot shows a Facebook post from the CDC dated March 21 at 10:48am. The post text states: "New CDC web graphics are now available for sharing information about radiation emergencies and health. Add one to your website or blog:". It includes two images: a red "RADIATION" button with the text "Learn More About Radiation and Health" and a URL "http://emergency.cdc.gov", and a blue button titled "CDC - Social Media Tools for Consumers and Partners - Buttons and Badges Gallery" with the URL "www.cdc.gov". The post has 49 likes and a comment box.

This screenshot shows a Facebook post from the CDC dated March 17 at 1:45pm. The post text reads: "Travel Health Precaution for Japan. US residents are urged to avoid nonessential travel to Japan. For additional information:". It includes a map of Japan and a link to "2011 Earthquake, Tsunami, and Radiation Release in Japan - Travel Information | CDC Travelers' Health wwwnc.cdc.gov". The post has 38 likes and 14 comments, with a "View all 14 comments" link and a comment box.

CDC Radiation Badge

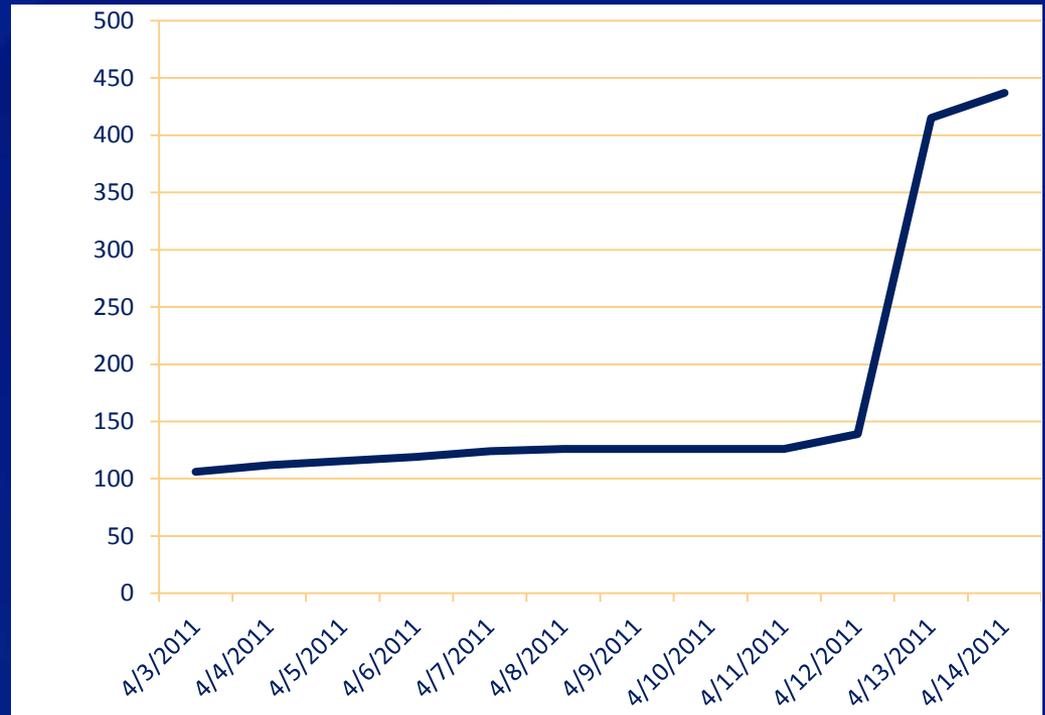
- Most popular badge during response
- Clickthroughs on the radiation badge higher than the #2, 3, 4, and 5 CDC buttons/badges combined



CDC Emergency Widget

Hosted by:

- Faith-based organizations
- State and local health departments
- University health departments
- Malaysian Health Department
- Oregon Militia
- Sacramento News



Content Syndication

- ❑ **444 total views**
- ❑ **12 syndicated websites**
- ❑ **Syndicated Material:**
 - Radiation Emergencies
 - Radiation Emergencies - Protecting Yourself and Your Family
 - Frequently Asked Questions FAQs About a Radiation Emergency
 - Radiation Emergencies - Information for Clinicians
 - Potassium Iodide KI
 - Frequently Asked Questions FAQs About Dirty Bombs
 - Evacuation in a Radiation Emergency
 - Shelter-in-Place in a Radiation Emergency
 - Radiation and Potassium Iodide (KI)

CDC Blog: Public Health Matters

<http://blogs.cdc.gov/publichealthmatters/>

- 3/24/2011: CDC Responds to Earthquake, Tsunami, and Radiation Release
- 3/28/2011: JIC Never Sleeps
- Averaged 2,000 views per day from 3/24-4/15

CDC Home
 Centers for Disease Control and Prevention
CDC 24/7: Saving lives, protecting people, reducing health costs

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Public Health Matters Blog

Sharing our stories on preparing for and responding to public health events

[Emergency Preparedness & Response](#) > [Public Health Matters Blog](#)

CDC Responds to Earthquake, Tsunami, and Radiation Release in Japan

Categories: [Response](#)
March 24th, 2011 4:44 pm ET - [Ali S. Khan](#)



Photo courtesy US Navy: An upended house among debris in Ofunato, Iwate Prefecture in Japan on March 15, 2011.

CDC Home
 Centers for Disease Control and Prevention
CDC 24/7: Saving lives, protecting people, reducing health costs

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[Emergency Preparedness & Response](#) > [Public Health Matters Blog](#)

The JIC Never Sleeps

Categories: [General](#), [Preparedness](#)
March 28th, 2011 3:08 pm ET - [Clarice Conley](#)



Photo by Rosa Norman: CDC's Joint Information Center (JIC) during response to Japan earthquake, tsunami, and radiation release

Blog Referrals

- Blogspot (personal)
- Reddit (personal)
- InfoWars
- Huffington Post
- Rense.com
- Jim Bakker Show
- Forbes
- L.A. Times
- Walletpop
- JapanSubculture
- DemocraticUnderground
- AboveTopSecret

Lessons Learned

- ❑ Pre-cleared/existing material
- ❑ Quickly adapt existing content
- ❑ Subject-matter expertise
- ❑ People get the message in many different ways
- ❑ Special populations/language resources
- ❑ Tailor message to populations

Communications Resources

- CDC Emergency Preparedness and Response Social Media: 2011 Japan Earthquake and Tsunami Response
<http://www.bt.cdc.gov/socialmedia/japan.asp>
- CDC Radiation Emergency Communications Research
<http://www.emergency.cdc.gov/radiation/audience.asp>
- *Planning Guidance for Response to a Nuclear Detonation (second edition)*
<http://www.remm.nlm.gov/PlanningGuidanceNuclearDetonation.pdf>
- EPA booklet *Communicating Radiation Risks: Crisis Communications for Emergency Responders*
(CDC Public Health Toolkit)

Radiological Terrorism: A Toolkit for Public Health Professionals

- Resources for Public Health
 - Virtual Community Reception Center
 - Population Monitoring Guide
 - EPA Risk Communication Guide
 - Contaminated Decedents Guide
 - Radiation Survey DVD
 - Webcasts
 - Fact Sheets
 - Psychological First Aid Self-Study



Radiological Terrorism: A Toolkit for Emergency Services Clinicians

- Resources for Clinicians:
 - JIT Training
 - Pocket Guides
 - Radiation Triage Chart
 - Fact Sheets
 - Webcasts
 - Self-study Training
 - Psychological First Aid



To order complimentary toolkits:

Email: cdcinfo@cdc.gov or

Call: 1-800-CDC-INFO (1-800-232-4636);

TTY: (888) 232-6348

Selected material available online:

www.emergency.cdc.gov/radiation

Questions?

For more information please contact Radiation Studies Branch, CDC

4770 Buford Highway NE, Atlanta, GA 30341

Telephone, 1-770-488-3800

E-mail: leeanna.allen@orise.orau.gov

Web: emergency.cdc.gov/radiation

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.

National Center for Environmental Health

Division of Environmental Hazards and Health Effects

