If You Can Explain Radiation, You Can Explain Anything! Lessons Learned from Communicating a Challenging Topic

John Donovan, MPH
Centers for Disease Control and Prevention, Radiation Studies Branch

BACKGROUND/PROBLEM
Unable to be seen, heard, or smelled, radiation is a hard topic to understand and is feared by many. In a radiation emergency, an overarching feeling of fatalism and professionals’ lack of willingness to respond are examples of major problems. The many lessons learned in communicating this topic can be applied to other challenging public health topics.

METHODS
CDC’s Radiation Studies Branch (RSB) has conducted extensive research on needs for the public, professionals, and special populations in a radiation emergency. This research has included testing radiation emergency messages, usability, and health effects messaging with the general public.

COMMON THEMES IN RSB’S AUDIENCE RESEARCH
• Radiation concepts, terms, and risks are poorly understood, even among well-educated people and professionals.
  • Affects professionals’ willingness to respond to a radiation emergency; RSB Toolkits had a positive affect — Greene County. “Willingness to Respond (WTR) for Radiologic Incidents: A Hands-On Approach.” Public Health, 45 (35), 58.
  • The public’s most persistent concern at each stage of a radiation emergency scenario, even in low-risk situation: What should I do to protect myself and my family?
  • “What am I gonna do for myself and my family? I was thinking maybe I need to have some stuff in place already in my house, or already in my care, because you never know.”
• People overestimate radiation emergency risks and resist “reassuring” messages.
• Participants do not like vague instructions, nor do they like messages that convey uncertainty by having may, might, or could in the message.
• People will be more likely to take protective actions if they understand why.
• A significant number of people do not understand basic terms such as “shelter-in-place”.

INNOVATIVE PRODUCTS TO ADDRESS CHALLENGES
- Risk Scale
- Radiation Emergencies Website Redesign
- Dose Thermometer
- Infographics

CONCLUSIONS
Make messages:
Actionable
• Empower people in protecting themselves, their families, others
Clear
• Improve risk perception
Interactive
• Engage user, put terms in context
Memorable
• Make people feel more prepared
Relatable
• Enable understanding of why around protective actions
Tangible and tactile
• Convey certainty

CONTACT INFO
John Donovan
jdonovan@cdc.gov
http://emergency.cdc.gov/radiation
http://www.cdc.gov/nceh/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.