CDC Communications in a Nuclear Reactor Accident

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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

Target Audience

- Public
- Professionals
  - Public Health Professionals
  - Clinicians
  - First Responders
  - Emergency Managers

Key Communications Goals

- Meet audience needs for information
- Bridge the gap between technical information and risk perception
- Describe radiation in ways that promote *responsible* public action

Information Needs in a Nuclear Reactor Accident

- What should I do to protect myself, my family, and my pets?
- Should I take potassium iodide (KI)?
- Is the food/water/air safe?
- How do I know if I have been exposed to radiation?
- How do I seek treatment if I think I have been exposed to radiation?
- I am traveling to/from an area affected by a nuclear reactor accident…what should I do?

CDC's Radiation Emergency Communications Research

- Protective Action Messages: 2011
- Health Effects Messages: 2012
- Spanish Language Messages: 2013
- Radiation Emergency Infographics: 2013

Messages and communications products were tested with the public for comprehension, believability, and ability to motivate desired actions

Key Findings: Message Development

- **Give prioritized action items in each message.**

  "I'm more interested in what I can do now. When there's an accident on the freeway, we're told which route to take to get around it, not how the accident took place..."

- **Create messages for different environments.**

  "If you are not at home, if you are at work now or at school here's what you might do."

Key Findings: Message Development

- **Make messages concise.**

"Time is valuable to deliver your message so you've got to make sure that you're conveying as much helpful information as possible."

- **Use plain, non-technical language.**

"When you have a disaster happen, you don't want to have to read the dictionary. You want point blank this is what's happening. This is what you should do."

Commonly Misunderstood Radiation Terms

- Background radiation
- Contamination/Contaminant
- Detrimental health effects
- Dose
- In the path/Downwind
- Internal/external contamination
- Low/high radiation levels
- Potassium Iodide
- Protective actions
- Protective measures
- Radiation particles
- Radioactive material
- Rem/Sievert
- Responders
- Risk of exposure
- Sheltering/Shelter-in-Place

Key Findings: Message Delivery

- **Radiation scientists are trusted sources of information.**

"If your car had a problem, you'd take it to a mechanic. You want to go to the experts."

- **Message consistency across agencies and communications channels is critical**

"If I'm confused, I'm not going to do it."

Key Findings: Message Delivery

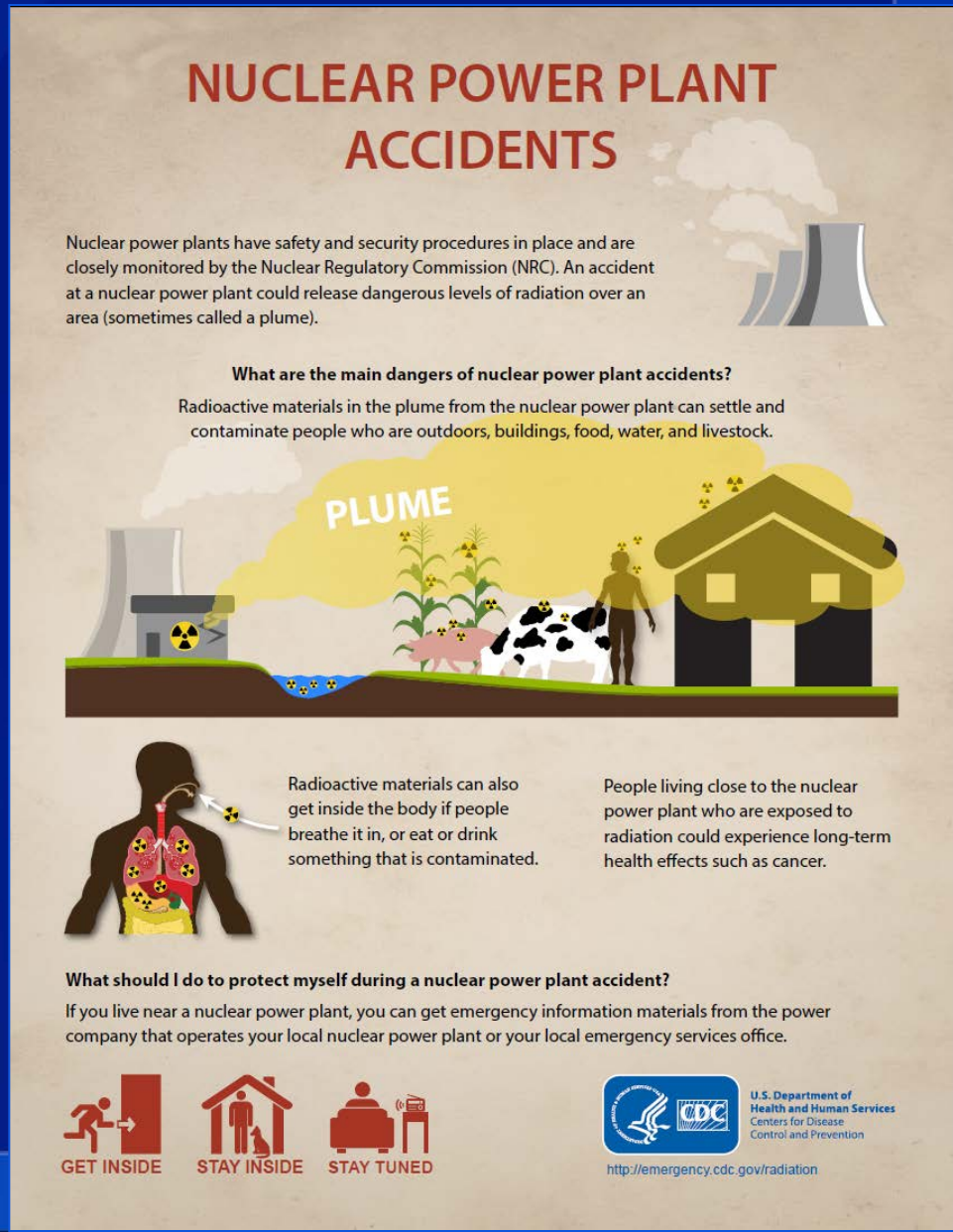
- **Use Visuals and pictures**

  What should I do in a radiation emergency?

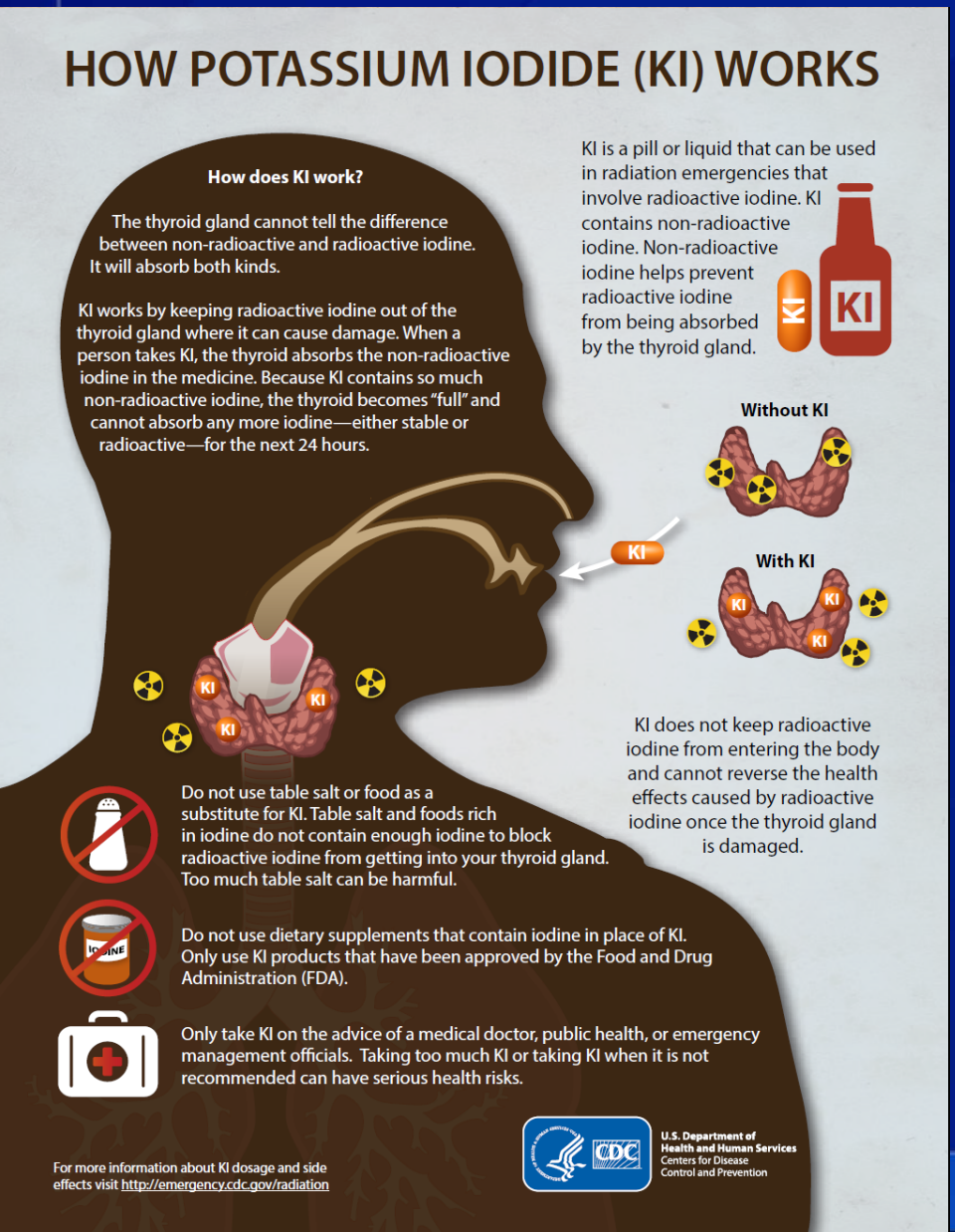
Key Findings: Message Delivery

- Infographics increase understanding
- 92% of online survey respondents found CDC's Nuclear Power Plant Accident Infographic easy to understand

"I loved that the picture included crops, animals, and water along with the human."



Key Findings: Message Delivery



- CDC's Potassium Iodide Infographic covers three key questions:
  - What is KI?
  - How does it work?
  - How do I know if I need it?

"The picture of the thyroid with and without KI explains the concept well"

"Simple and effective message"

Communication Channels

- Traditional Channels
  - Radiation Emergencies Website
  - CDC INFO phone number and email
  - TV and Radio
  - Training and support for state and local partners
- Social Media
  - Twitter
  - Facebook
  - Pinterest
  - Buttons/Badges
  - Content Syndication

Questions?

http://emergency.cdc.gov/radiation

For more information please contact Radiation Studies Branch, CDC

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