

Communicating about the Event and What to do

PRESENTATION FOR:

NAS – Challenges in Initiating and Conducting Long-Term Health Monitoring of Populations Following Nuclear and Radiological Emergencies in the United States
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*Trust takes years to build,
seconds to break, and
forever to repair.*

-unknown

Radiation and emotion

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Perception of risk

Low Perceived Risk	High Perceived Risk
Voluntary	Involuntary
Under own control	Under control of others
Familiar	Unfamiliar
Personal Benefit	Unknown/No Benefit
Random	Direct
Immediate Effects	Delayed Effects (future generations)
Known Risk	Unknown Risk
Natural Origin	Human Origin

Adapted from V. Covello, P. Sandman, 2001

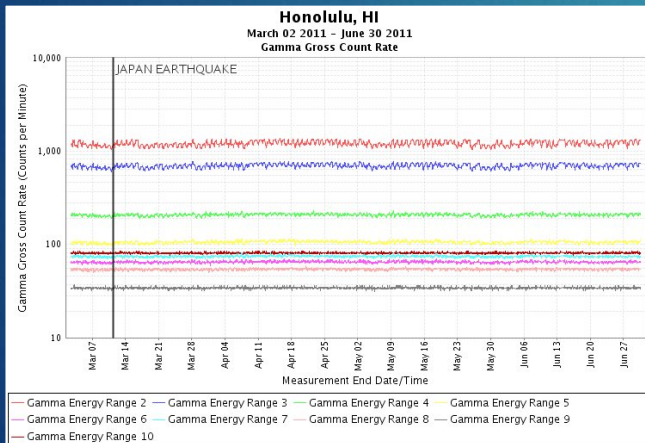
“A brilliant scientific discourse is wasted if no one listens or understands it.”

-Journal of the American Medical Association

Communication is more than information.

- ▶ “Just the facts” won’t cut it—feelings count!
- ▶ Show you understand people’s health concerns.
- ▶ In a high-stress situation, your audience will wonder if they can trust you.

Risk communication principles



www.epa.gov/Japan2011

- Explain the risk assessment process before presenting the numbers.
- Define and illustrate the routes of exposure.
- Define units and put data in perspective.
- Explain protective approach to risk assessment and standard setting.

Lessons learned from Fukushima & testing

- ▶ Be careful with comparisons.
- ▶ Don't be too repetitive.
- ▶ Check for contradictory statements.
- ▶ Provide prioritized or staged instructions.

Pre-scripted Messages

- ▶ ~90 questions and answers in each document
- ▶ Agreed upon by 14 federal agencies
- ▶ Posted publicly on the internet
- ▶ A resource for all levels of government

Communicating During and After a Nuclear Power Plant Incident

June 2013

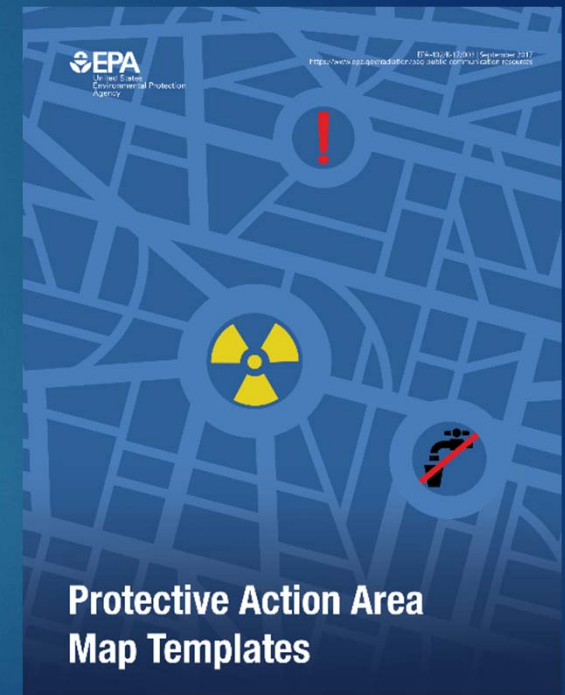
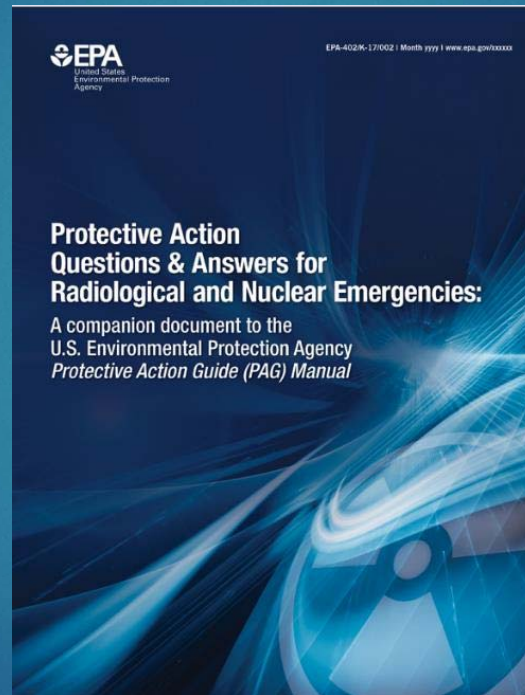
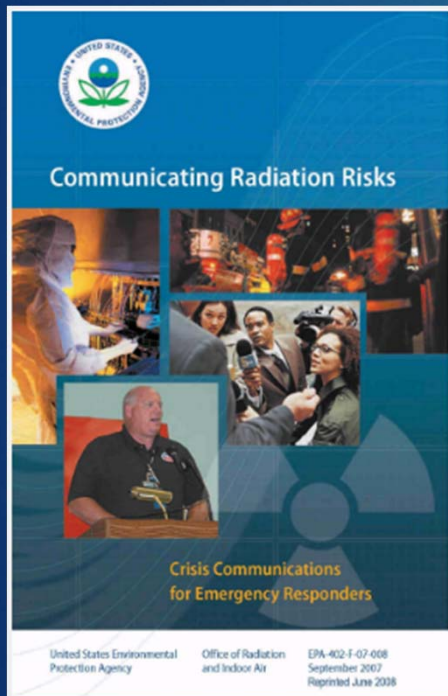
Improvised Nuclear Device Response and Recovery

Communicating in the Immediate Aftermath

June 2013



More Pre-scripted Messages



Nuclear Detonation Social Media Messages

Topics include:

- Nuclear Attack Warning
- Immediate Safety Messages
- Decontamination
- Food and Water Guidance
- Medical Needs/Potassium Iodide
- Family and Children Concerns
- Evacuation
- Plume Maps and Fallout

Immediate Notification/Nuclear Attack Warning

IPAWS Compatible: People in **LOCATION**: BALLISTIC MISSILE ALERT-Get inside, stay inside, stay tuned for info (88)

If you are near **LOCATION**: get inside a basement or central room of any nearby building, away from windows and doors, stay inside, stay tuned for more information. **CDC WHERE TO GO GRAPHIC** (162)

If you are in a car, seek shelter in the nearest building. If no buildings nearby, pull to the side of the road, under an overpass if possible. (143)

In the event of a bright flash of light, duck down for at least 30 seconds to avoid injury from flying debris. (110)

If you are near **LOCATION**: get inside a basement or central room of any nearby building, stay inside, stay tuned for more information. Do not leave your shelter unless officials provide other instructions or your shelter is threatened by fire or collapse. **CDC WHERE TO GO GRAPHIC** (254)

Immediate Safety Messages

IPAWS Compatible: Get inside, stay inside, stay tuned. This instruction can save your life. (74)

People in **LOCATION**: a **NUCLEAR EVENT** has occurred. To protect yourself and your family: get inside, stay inside, stay tuned for more information. Follow instructions from officials-this can save your life. **CDC WHERE TO GO GRAPHIC** (206)

If you are near **LOCATION**: get inside a basement or central room of any nearby building, stay inside, stay tuned for more information. Do not leave your shelter unless officials provide other instructions or your shelter is threatened by fire or collapse. **CDC WHERE TO GO GRAPHIC** (254)

People in **LOCATION**: a **NUCLEAR EVENT** has occurred. Get inside a basement or central room of any nearby building, stay inside, and stay tuned. Check **@HANDLE @HANDLE**

Infographics: Translated into 12 Languages

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WHERE TO GO IN A RADIATION EMERGENCY

If a radiation emergency happens in your area, you should get inside immediately.

No matter where you are, the safest action to take is to: **GET INSIDE. STAY INSIDE. STAY TUNED.**

- Close and lock all windows and doors.
- Go to the basement or the middle of the building. Radioactive material settles on the outside of buildings, so the best thing to do is stay as far away from the walls and roof of the building as you can.
- If possible, turn off fans, air conditioners, and forced-air heating units that bring air in from the outside. Close fireplace dampers.
- Bring pets inside.
- Stay tuned for updated instructions from emergency response officials.



Adapted from Ventura County Public Health, Ventura County, CA



IMPROVISED NUCLEAR DEVICE

An Improvised Nuclear Device (IND) is a type of nuclear weapon. When an IND explodes, it gives off four types of energy: a blast wave, intense light, heat, and radiation. The bomb dropped on Hiroshima, Japan, at the end of World War II is an example of an IND.

When an IND explodes, a large fireball is created. Everything inside of this fireball vaporizes and is carried upward. This creates a mushroom-shaped cloud. The material in the cloud cools into dust-like particles and drifts back to the earth as **fallout**. Fallout can be carried by the wind and can end up miles from the site of the explosion. Fallout is radioactive and can contaminate anything it lands on.



What are the main dangers of an Improvised Nuclear Device?

An IND could cause great destruction, death, and injury and have a wide area of impact. People close to the blast site could experience:

- Injury or death (from the blast wave)
- Moderate to severe burns (from heat and light)
- Blindness (from the intense light)
- Radiation sickness, also known as acute radiation syndrome or ARS (caused by the radiation released)

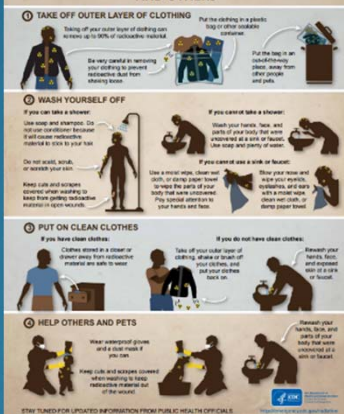
People farther away from the blast, but in the path of fallout, could experience health effects from:

- Fallout on the outside of the body or clothes (external contamination) or on the inside of the body (internal contamination)
- Radiation sickness
- Contaminated food and water sources

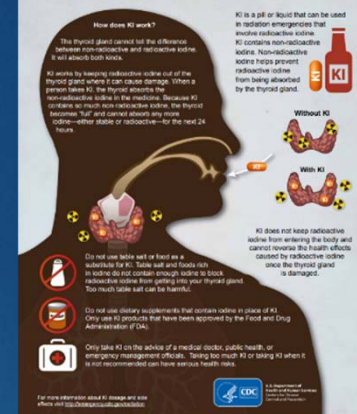
What should I do to protect myself?



DECONTAMINATION FOR YOURSELF AND OTHERS



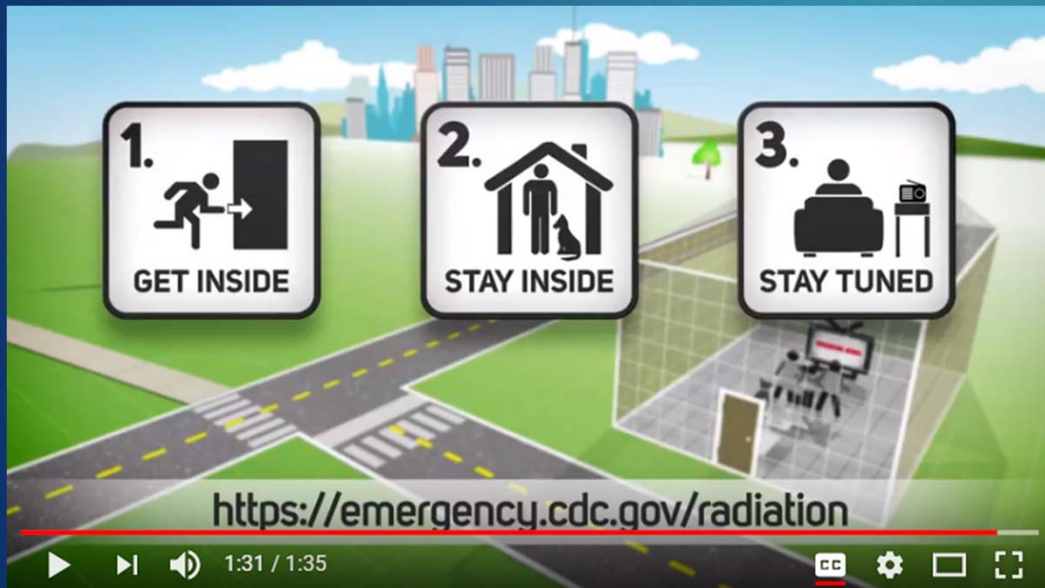
HOW POTASSIUM IODIDE (KI) WORKS



<https://emergency.cdc.gov/radiation/resource/library/infographics.asp>

Videos

How to Protect Yourself in a Radiation Emergency



Example question & answer

Q.45 How and why are you tracking people who have been exposed to radiation and radioactive material?

- ▶ Your local officials will set up community reception centers to check people for contamination with radioactive material and assist them with needed services and enter them into a registry {if indicated} for tracking and follow-up.
- ▶ The registry permits follow-up with people who need immediate health care and enables long-term monitoring for individuals who have been exposed to radiation.

From Communicating During and After a Nuclear Power Plant Incident, page 32

The Tools are Publicly Available

<https://www.epa.gov/radiation/page-public-communication-resources>

How to Communicate with Individuals

Compassion for
the individual

**Validation of
their feelings**

Commitment
to their health