

Public Messaging and Communications

Holly Hardin

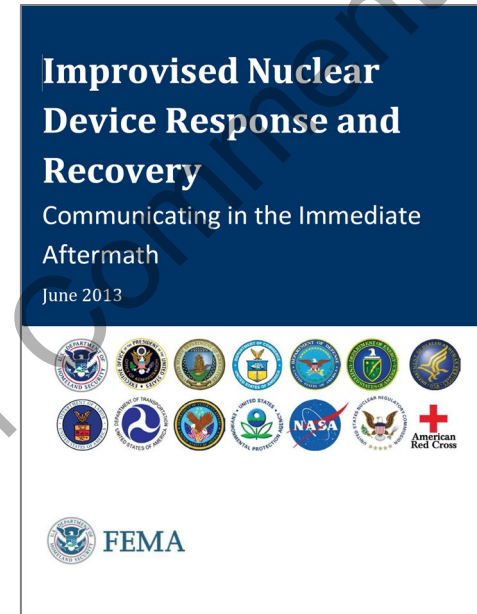
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U.S. DOE/NNSA Office of Nuclear Incident Policy and Cooperation

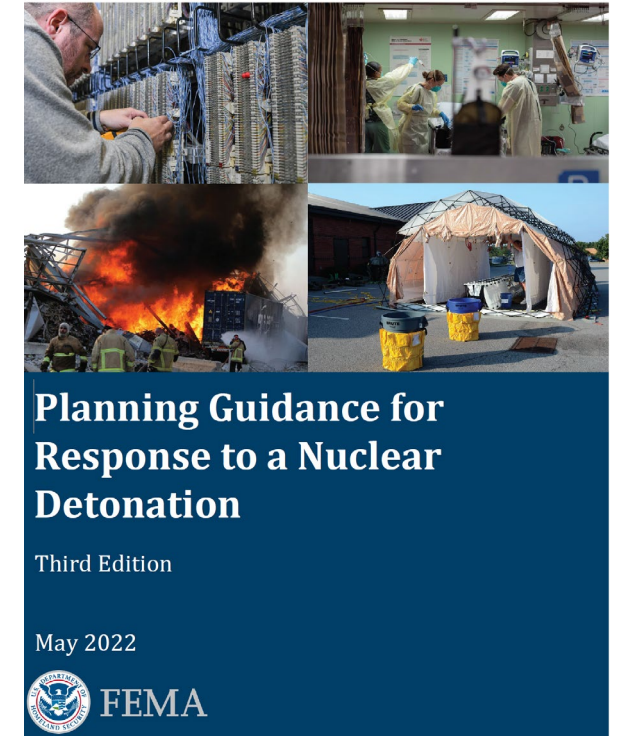
Existing US Guidance

Improvised Nuclear Device Response and Recovery: Communicating in the Immediate Aftermath

Planning Guidance for Response to a Nuclear Detonation



www.fema.gov/sites/default/files/documents/fema_improvised-nuclear-device_communicating-aftermath_june-2013.pdf



www.fema.gov/sites/default/files/documents/fema_nuc-detonation-planning-guide.pdf

Timely Communication is Critical

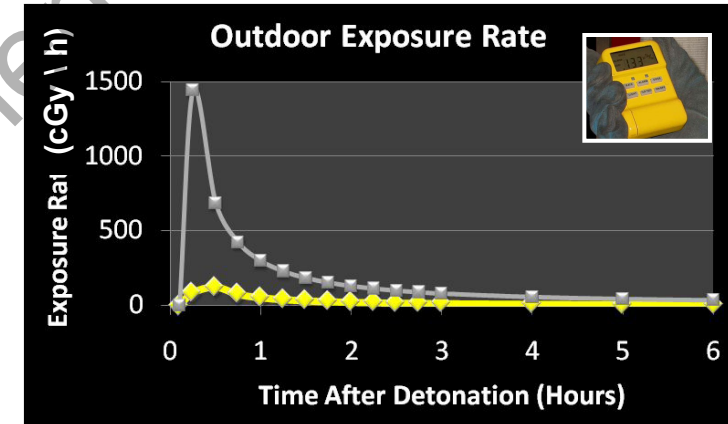
Responders may not have time to provide much, if any, warning

Self-directed protective actions, such as staying inside, will be key to reduce casualties

Pre-event community outreach and education decreases the time to

- Recognize the incident has occurred
- Take the appropriate protective action

The First Few Hours Matter Most



Access Will be Very Limited



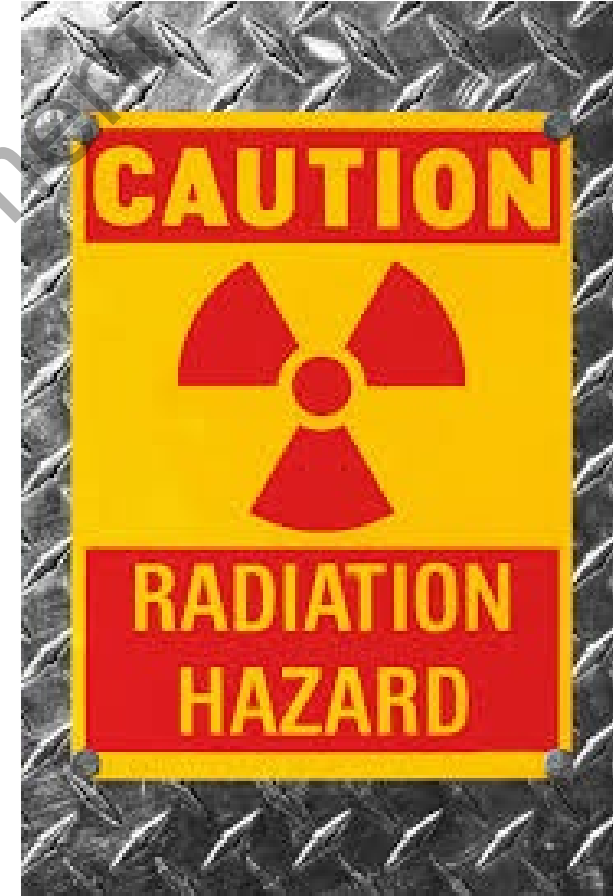
Outline

- Radiation Emergency Communication Considerations
- Planning Specific Considerations
- Immediate, Life-Saving Messaging
- Combating Harmful Information
- Planning Questions for Assessing Readiness

US Public Perception

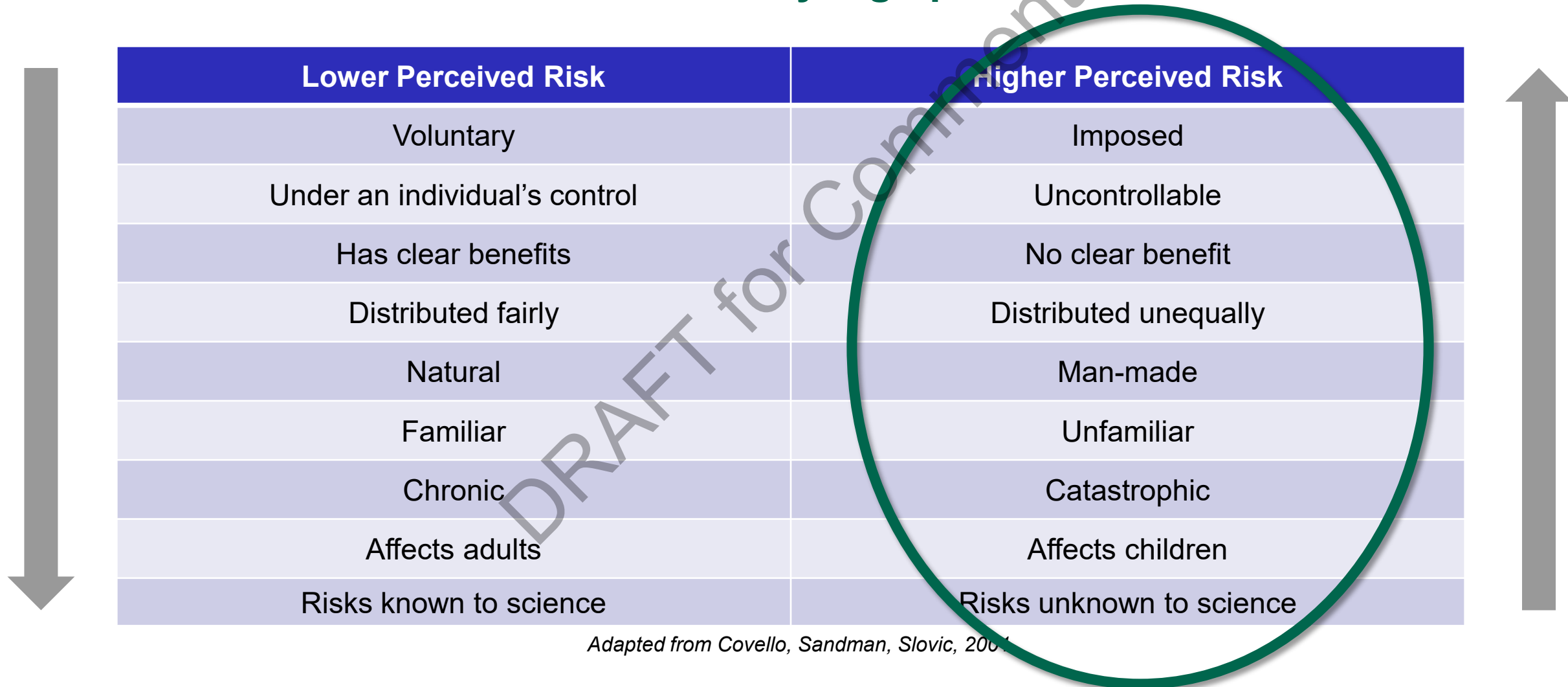
Situations involving radioactive materials have a remarkable capacity to produce widespread fear, a profound sense of vulnerability, and a continuing sense of alarm and dread.

-Dr. Steve Becker



Risk Perception Factors

Nuclear detonations have many high perceived risk features



Lower Perceived Risk	Higher Perceived Risk
Voluntary	Imposed
Under an individual's control	Uncontrollable
Has clear benefits	No clear benefit
Distributed fairly	Distributed unequally
Natural	Man-made
Familiar	Unfamiliar
Chronic	Catastrophic
Affects adults	Affects children
Risks known to science	Risks unknown to science

Adapted from Covello, Sandman, Slovic, 2001

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Radiation Risk Communication For Decision-Makers and Communicators

- Risk is understood at the individual level (will it hurt me or not?)
- People often determine risk by fast, intuitive feelings
- Building trust is key
 - Use multiple communication pathways
 - Use trusted individuals as messengers

Anti-Radiation Pills Bought as U.S. Fears Rise

Experts say the risk to the West Coast is very small.

By by ENJOLI FRANCIS and DAN HARRIS
March 14, 2011, 11:01 PM • 3 min read



Japan nuclear crisis triggers run on anti-radiation pills

 **World** Africa Americas Asia Australia China Europe India Middle East United Kingdom LIVE TV Edition ▾

Fukushima water release could change human DNA, Greenpeace warns

By Amy Woodyatt and Yoko Wakatsuki, CNN
Updated 10:21 AM ET, Sat October 24, 2020

**Address the risk (and actions to reduce it)
rather than addressing “is radiation safe?”**

FEELING IN THE FACTS

Considerations for opening and closing statements

Consider:
**What would you
say to a loved one?**

***“People don’t care
how much you know, until
they know
how much you care”***



Express empathy
and/or sympathy



Be Memorable



Reinforce actionable messaging and
use a call to action



Don’t use commonplace
vernacular or phrases



Simple messaging

Use Message Maps

No more than 3 key messages

No more than 27 words or 9 seconds of speech for each message

Put most important information first

Put second most important information last

Use plain, simple to understand language

Key Message 1	Key Message 2	Key Message 3
Most Important Supporting Message 1	Most Important Supporting Message 1	Most Important Supporting Message 1
Third Most Important Supporting Message 2	Third Most Important Supporting Message 2	Third Most Important Supporting Message 2
Second Most Important Supporting Message 3	Second Most Important Supporting Message 3	Second Most Important Supporting Message 3

Message Map Example

Question: What should I do if there is a nuclear explosion?

Get inside (Key Message 1)	Stay inside (Key Message 2)	Stay tuned (Key Message 3)
Get inside a safe building or underground quickly	Plan to stay inside for 12 to 24 hours	Listen to radio, television, Internet, smartphones, etc.
The safest buildings have thick brick or concrete walls	Dangerous radiation levels decrease with time	Information and instructions will be updated
Cars will not protect you. Get indoors immediately!	Don't leave to get children. Everyone is safer staying inside	Follow instructions of emergency responders

Use Simple Instructions

Use both graphics and plain language

Some people learn better by images

Some people learn better by reading



**In a crisis, people remember information given
by video best**

Use Maps

Example US template

This event has several different *geographical* audiences

Use maps to communicate response areas and recommended actions

Mention place names and landmarks

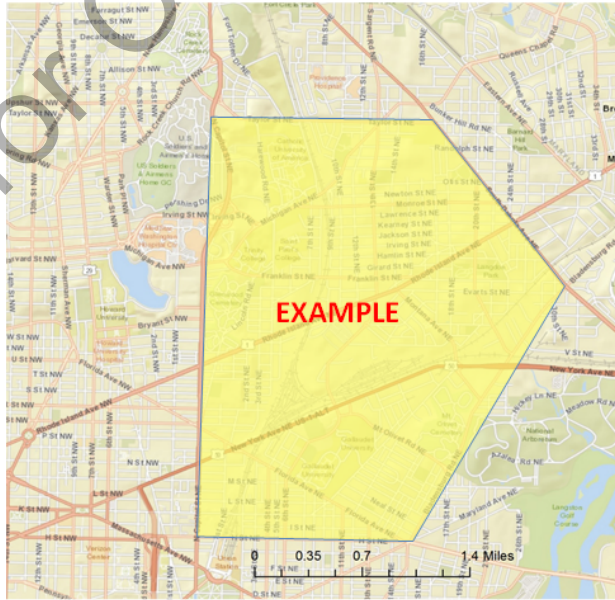
Insert state or local agency logo

For Use by State, Local or Tribal Response Organizations ONLY

Get Inside Immediately

For [Insert Incident], As of [Time/Date]

9



If you are anywhere in the [location] area, get inside a building now.

Radiation Hazard Message (choose one)

- 1) The radiation levels in this area are extremely dangerous.
- 2) This is to avoid any unnecessary radiation exposure that may affect your long-term health.
- 3) These actions are precautionary and will be in place until additional information becomes available.

Go to the basement or center of your building immediately.

The walls of a building can block much of the harmful radiation. Cars will not protect you from radiation.

Stay inside until you are told to leave; you should expect to stay inside for at least [#] hours.

Those in schools, hospitals, nursing homes and daycare facilities are receiving care. When it is safe, you will receive instructions to join your loved ones.

Stay tuned for updates.

Guidance issued by [Insert state or local agency]
For updates and additional information: [Insert website]

Provide Prioritized or Staged Instructions

Staged instruction example



https://www.ready.gov/sites/default/files/2020-11/ready_nuclear-explosion_fact-sheet_0.pdf

Coordinate Messages

There will be many different
agency stakeholders

Every agency has its OWN
values, experiences, and
priorities

Different messages increases
public UNCERTAINTY (higher
risk), and the public is less
likely to listen to anyone

ONE message, MANY voices

**Public asks:
What do I do first?**

Law



Call the hotline if you
see anything
suspicious

Food



Don't eat food from
your garden until we
have more information

Medical



Take a shower if you
can; if not, wash; if not,
wipe with a towel

Spread the Message (Dissemination)

One communication channel may not be enough

- Some people only use a few channel(s)
(different languages, personal preference, sight or hearing impaired)
- People only trust some information sources
- Some channels may be damaged or overloaded

Include low-tech channels

- Radios, Sirens, Megaphones, Loudspeakers

Encourage people to share information with friends and families

Use multiple, official communication channels

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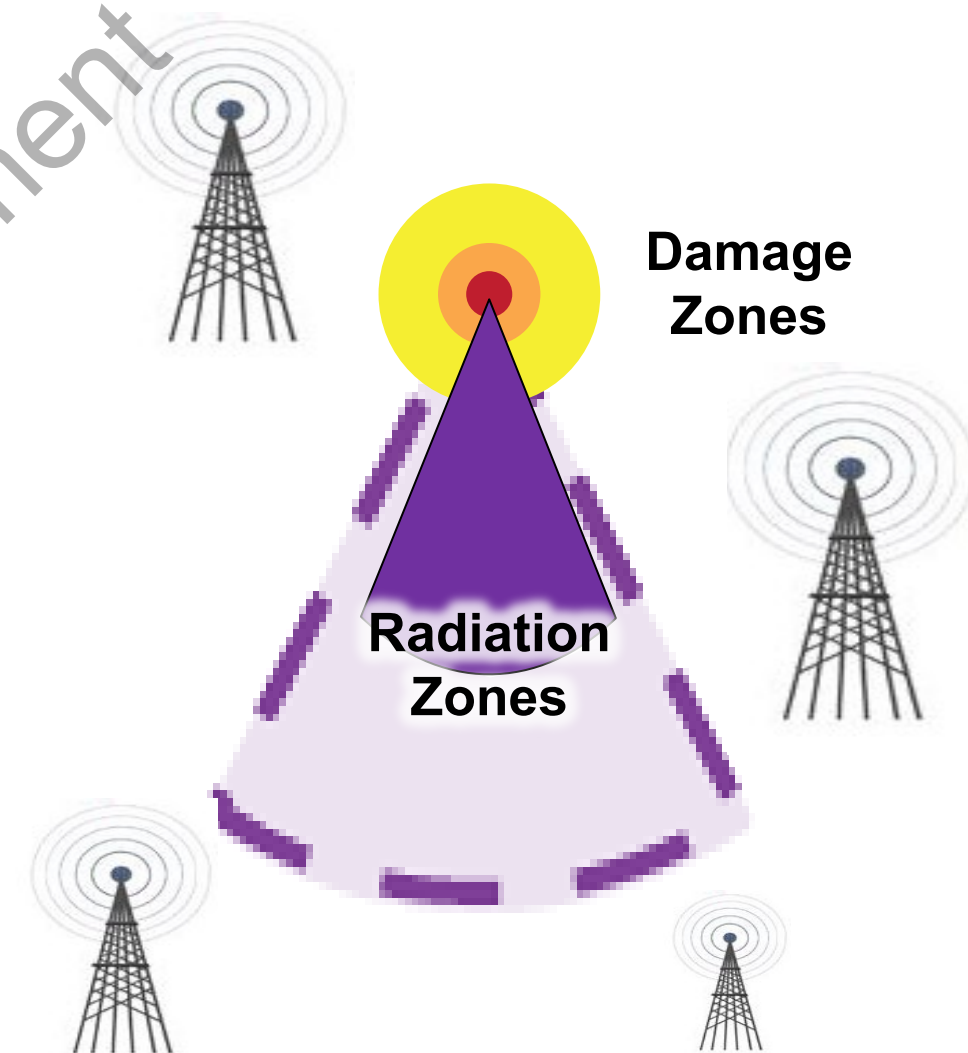
Use Communication Tools From OUTSIDE the Affected Area

Communication systems OUTSIDE the affected area can reach impacted people

Cell, radio, and TV stations can broadcast into the affected areas

Internet may also be available

- Leverage traditional and non-traditional influencers
- Use social media monitoring tools to identify the channels that reach the most people with effective messaging



First Responder Messaging

Most of this module focuses on public messaging – first responders are also an important audience

We develop messages so responders (and their families) understand the hazards and ways to protect themselves

- Consider both professional first responders and non-traditional emergency workers
- Most emergency workers are not familiar with radiation
- Responders should be properly informed about the risks associated with the areas they may be working in

Communicate risks and protection strategies

**Responders and their family need to understand
their actions can protect them**

Prepare for Updates

Emergencies evolve over time

Important, new information becomes available
(for example, updated response zone locations)

Hazards change (for example, fires spread to new areas)

**Messages will be updated, so we include the phrase
“instructions will be updated”
at the end of messages**

Pop Quiz

As a best practice, provide prioritized or staged instructions when communicating protective action messages.

True or False?

Outline

- Radiation Emergency Communication Considerations
- **Planning Specific Considerations**
- Immediate, Life-Saving Messaging
- Combating Harmful Information
- Planning Questions for Assessing Readiness

Preparedness (Planning) Phase

- Assess public's knowledge about nuclear effects
- We develop a communication strategy that addresses
 - Stakeholder / intended audience needs
 - Messages and approval authorities
 - Local communication challenges and objectives
 - Use of surrounding region communication capabilities
 - Transfer of responsibilities in the transition phase
- Practice the public communication strategy

Use risk communication best practices and leverage all-hazards messaging

<https://www.cdc.gov/healthcommunication/risks/index.html>



Identify shelter locations. Identify the best shelter location near where you spend a lot of time, such as home, work, and school. The best locations are underground and in the middle of larger buildings.

While commuting, identify appropriate shelters to seek in the event of a detonation.

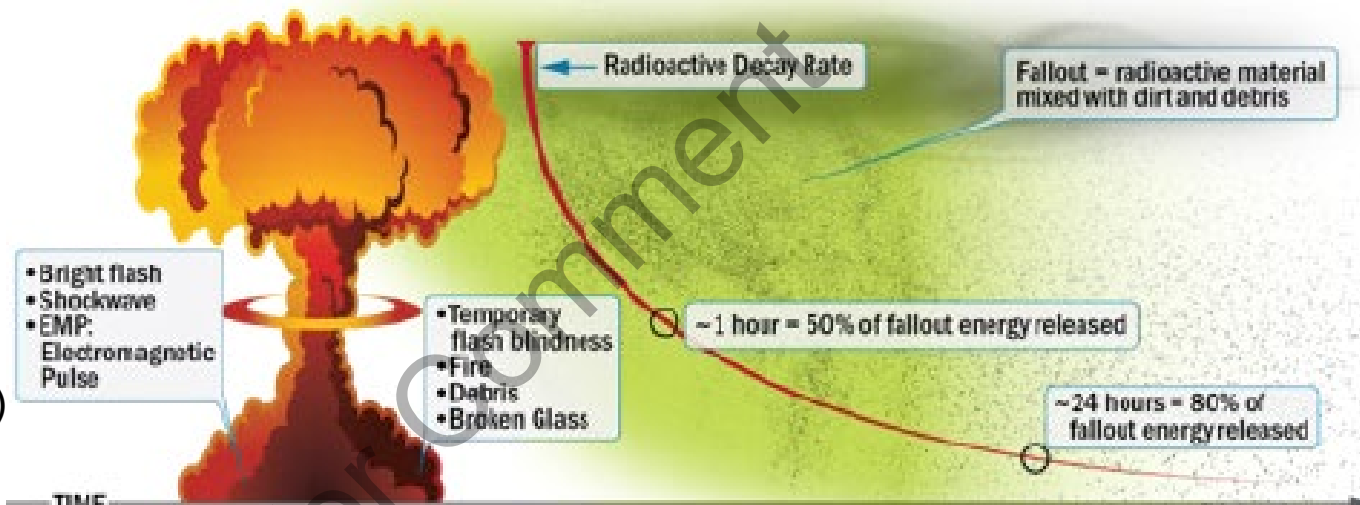
Outdoor areas, vehicles and mobile homes do NOT provide adequate shelter. Look for basements or the center of large multi-story buildings.

Make sure you have an **Emergency Supply Kit** for places you frequent and might have to stay for 24 hours. It should include bottled water, packaged foods, emergency medicines, **a hand-crank or battery-powered radio** to get information in case power is out, a flashlight, and extra batteries for essential items. If possible, store supplies for three or more days.

Source: A https://www.ready.gov/sites/default/files/2020-11/ready_nuclear-explosion_fact-sheet_0.pdf

Available US Visuals and Messages

- Public education materials
- Message templates that can be tailored to specific event and community needs
 - Attack Warning
 - Initial Protective Action (Get Inside)
 - Evacuation



	Before the Detonation			After the Detonation			Sustained Operations
Time			15 min before	15 min after	First day	Days to weeks	Months
Officials	Preparedness and education	Elevated Threat	Attack warning (if possible)	Rapid public messaging	Immediate, life-saving messaging and activities	Continued life-saving and stabilization	Long-term recovery
Public	Individual and Family Preparedness	Teachable Moments	Get Inside Stay Inside Stay Tuned	Get Inside Stay Inside Stay Tuned	Stay Inside If Safe Seek Help for Life-Threatening Hazards	Follow instructions from authorities	Follow instructions from authorities

BE
PREPARED!

Poll: Prepared Messages

Does your agency have prepared, pre-approved messages for a nuclear detonation?

Planning for Message Coordination

- Immediate communications (including updates) are essential to save lives
- US designates a lead agency to coordinate, approve, and deliver messages
- We plan how to coordinate and send messages during the event
 - We develop plans to share key messages (normal communications will be degraded)
 - US uses a Joint Information System (JIS) and Joint Information Center (JIC)

We approve messages and dissemination strategy IN ADVANCE

Who MAKES the messages?

Who APPROVES the messages?

Who SENDS the messages?

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Federal Information Coordination and Approval

**Federal level supports the locally
directed response.
Communications strategy may be
conducted by local/state level.**

Coordination Steps:

- Messaging priorities
- Technical review of content
- Interagency coordination and approval
- Federal External Affairs coordination

https://www.fema.gov/sites/default/files/2020-10/fema_esf-15_sop_2019.pdf



Virtual Information Management

- Use technology to close geographic gaps
- Quicker information management engagement - eliminating travel time
- Augment work to organizations with more resources
- Joint Information Center option always available if warranted
- Virtual Operations Support Team (VOST) are trusted agents to provide remote surge support
- Activated to perform monitoring support
- US teams use the National Incident Management System (NIMS) and Incident Command Structure (ICS)
- Takes careful thought and planning



Key Preparedness Takeaways

Question:

How can I communicate effectively to address a nuclear detonation?

Address strong emotions	Prepare in advance	Coordinate agencies
Express empathy about public concerns	Anticipate public questions. Prepare and practice responses	Revise plans and processes to minimize delays
Facts alone will not overcome strong emotions	Encourage your community to demonstrate nuclear detonation preparedness activities	Use a structured system to manage the information cycle and unify messaging
Use risk communication techniques to explain radiation	Combine message maps and graphics to amplify message contents	Agency coordination will identify and fill gaps

Pop Quiz




As a best practice, encourage your community to demonstrate nuclear detonation preparedness activities.

True or False?

Outline

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First Shelter
(Seek Adequate, Nearby Shelter)

		
<p>Get inside a safe building or underground quickly</p>	<p>Plan to stay inside for 12 to 24 hours</p>	<p>Listen to radio, television, Internet, smartphones, etc.</p>
<p>The safest buildings have thick brick or concrete walls</p>	<p>Dangerous radiation levels decrease with time</p>	<p>Information and instructions will be updated</p>
<p>Cars will not protect you. Get indoors immediately!</p>	<p>Don't leave to get children. Everyone is safer staying inside</p>	<p>Follow instructions of emergency responders</p>

Sheltering is the best default action to take immediately before or following a nuclear explosion

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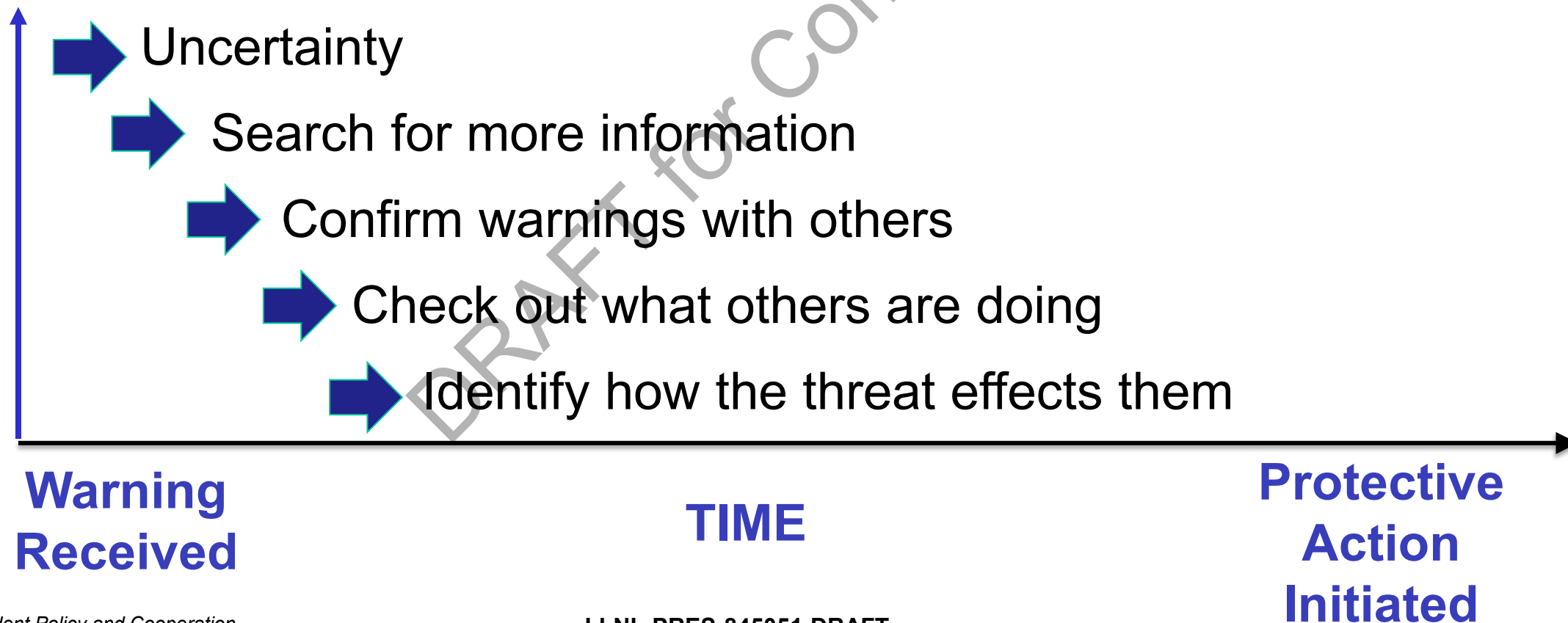
US has Developed Messaging Templates for the Following Topics

- **Immediate Protective Actions**
- Decontamination
- Food, Water, and Medicine Safety
- Evacuation
- Population Monitoring and Community Reception Centers
- Seeking Medical Care
- Blast and Thermal Injuries
- Medical Care and Countermeasures
- Coping and Mental Health
- Health Effects for Populations at Higher Risk
- Access and Functional Needs
- Response Actions and Responsibilities
- Situations Based on Geography
- Staying Tuned
- Messaging Outside of the Impacted Area

Communication Pathways: Emergency Alert System, Wireless Emergency Alerts, Internet Service Providers

How Individuals Process Warnings

Message contents matter. Reduce public and responder protective action delays.



Key Message Characteristics

**[Message Source]. [Hazard Description] in [Location]. [Protective Action]
[Protective Action Timeframe]. Message expires [Expiration Time]**

Message Source	Use a local, familiar, and/or trusted sources
Hazard Description	Describe the threat in plain language
Location	Use familiar landmarks and known physical boundaries
Protective Action	Explain the actions needed for health and safety
Protective Action Timeframe	Using “now” or “immediately” creates urgency
Consequence Reduction	(Optional) Supports response efficacy
Expiration Time	(Optional) Less important than Protective Action Timing
Other	Link to trusted information sources Maps increase personalization

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Select Examples of US Immediate, Life-Saving Messages

Government Officials Detect an Incoming Nuclear Attack

- **[Source]** **NUCLEAR** ATTACK ALERT- People in **[LOCATION]**: Get inside, stay inside, stay tuned for info.
- **[Source]** **NUCLEAR** ATTACK ALERT. People near **[LOCATION]**: Get inside a basement or central room of any nearby sturdy building away from windows and doors. Stay inside, stay tuned for more info. Don't leave unless officials provide other instructions.

Immediately After Detonation

- **[Source]** (**NUCLEAR**) ATTACK ALERT for people in **[LOCATION]**: Get inside, stay inside, stay tuned to official sources of information. This instruction can save your life.
- **[Source]** A nuclear detonation has occurred. People in **[LOCATION]**: To protect yourself and your family: get inside, stay inside, stay tuned for more information. Follow instructions from officials – this can save your life.

Messages can also be used for social media

www.fema.gov/sites/default/files/documents/fema_improvised-nuclear-device_communicating-aftermath_june-2013.pdf

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Select Examples of US Immediate, Life-Saving Messages

Immediately After Detonation

Get Inside

- A **[NUCLEAR EVENT]** has occurred. People in **[LOCATION]**: Get inside the nearest sturdy building. Go to a basement or a central room without windows. More walls provide are more protection from radiation. Stay inside and stay tuned. Check **[@HANDLE @HANDLE @HANDLE]** for updates.

Stay Inside

- Do NOT leave your building unless instructed to. If your building is on fire or collapsing, relocate to a sturdy building.
- Stay inside and follow official instructions. Responders measure radiation levels to know when it is safe to evacuate or go outside. You may need to stay inside for at least 12-24 hours, possibly more. Follow **[@Handle @Handle @Handle]** for updates

www.fema.gov/sites/default/files/documents/fema_improvised-nuclear-device_communicating-aftermath_june-2013.pdf

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Select Examples of US Immediate, Life-Saving Messages

Life Threatening Injuries

- People with moderate or major injuries or people experiencing a medical emergency should go directly to a hospital or seek emergency medical care at [LOCATIONS].
- If you or anyone you are staying inside with experiences the onset of severe symptoms, such as significant trouble breathing, or changes in mental status, call 911.
- If you are unable to call, go to the nearest *[depending on what's available in your jurisdiction: hospital/fire station/Emergency Medical Service station/police station or emergency medical triage center if one is established]* located at [LOCATIONS].
- Only those with serious, life-threatening injuries should seek medical care since medical facilities are overwhelmed.

Pop Quiz

The most important immediate, life-saving message after a nuclear detonation is to seek adequate, nearby shelter.

True or False?

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FALSENESS

INTENT TO HARM

Misinformation

Unintentional mistakes such as inaccurate photo captions, dates, statistics, translations, or when satire is taken seriously.

Disinformation

Fabricated or deliberately manipulated audio/visual content. Intentionally created conspiracy theories or rumours.

Malinformation

Deliberate publication of private information for personal or corporate rather than public interest, such as revenge porn. Deliberate change of context, date or time of genuine content.



NNSA FACT CHECK

Russian Disinformation Targeting Los Alamos National Laboratory

CLAIM

A Russian military official recently presented blatantly false information attempting to tie NNSA's Los Alamos National Laboratory (LANL) to Russia's false accusations of U.S.-funded bioweapons research in Ukraine.

RATING



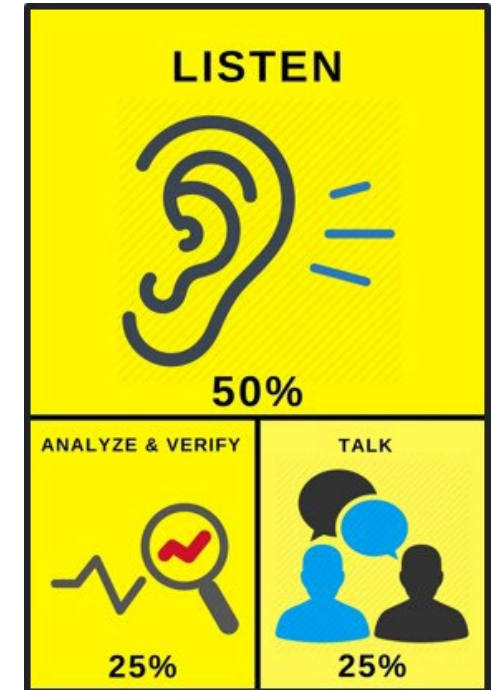
FALSE

TRUTH

Los Alamos researchers are engaged in work to protect the global community – including Russia – from bird-borne infectious diseases.

Inoculate Against Harmful Information

- Actively counter falsehoods and inconsistencies
- Simple retractions or refutations have limited effect
- Inoculation is a better solution (particularly if done prior the event)
 - Warn people that they may be exposed to harmful information
 - Preempt expected false information with the correct information
 - Urge people to be alert for harmful information



**During an event, use out-of-area resources to combat the
effects of harmful information (adversary goals)
not the harmful information itself**

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Personnel Questions for Leadership and Communications Staff

We ask ourselves these questions when assessing readiness:

- Who is writing the messages?
- Who will revise and approve changes?
- Who is responsible for sending messages?
- Who are the back-up staff?
- Have you exercised nuclear detonation scenario communications to identify and minimize delays?

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Messaging Questions for Leadership and Communications Staff

- Have you developed a public education campaign to address a nuclear detonation?
- Do you have prepared messages to address:
 - First responder messaging
 - The importance of sheltering in place during a nuclear detonation
 - Postdetonation evacuation illustrating different phases of an evacuation
- Do you have scientifically based fallout warning messages tailored to the specific needs of the community?

- How will the local communications system respond?
 - Is it redundant?
 - Does it have the needed speed, coverage, and bandwidth?
 - Are there multiple channels to reach key sub-populations?
 - Hearing impaired, visually impaired, mobility issues, commuters, homeless
 - Different geographic areas
- Are capabilities outside the impacted areas able to
 - Broadcast protective actions into the area
 - Combat harmful information

Additional Resources

Improvised Nuclear Device Response and Recovery

Communicating in the Immediate
Aftermath

June 2013



www.fema.gov/sites/default/files/documents/fema_improvised-nuclear-device_communicating-aftermath_june-2013.pdf

CDC Radiation Risk Communication for Public Health

<https://www.cdc.gov/nceh/radiation/emergencies/cerc.htm>

Health & Human Services

<https://www.remm.nlm.gov/nuclearexplosion.htm>

Public Information Officers: Information for Radiation Emergencies

https://remm.hhs.gov/remm_pio.htm

Quick Thoughts on Messaging and Communicating for Health Physicists

<https://summitet.com/2021/04/15/comms-health-physics/>

CBRN Responder Public Information Resources

<https://www.cbrnresponder.net/app/index#resources/documents/index?rltf=104>

Ready.gov - Nuclear Explosion:

<https://www.ready.gov/nuclear-explosion>

Thank you

DRAFT for Comment