2nd Meeting of the Emergency Preparedness and Response Standards Committee (EPReSC)
27 June – 1 July 2016

Agenda Item 8.2b
Update from the Working Group on how to communicate what is safe

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To get started…

Pictures
freedigitalphotos.net / Phil Thebault / freedigitalphotos.net / patrisyu flickr.com/photos/doobybrain/
Public’s Risk Perception of Nuclear/Radiological is Different

- Nuclear and radiological risks feel more frightening to the public
- Even when scientific facts show a risk is low, psychological characteristics play a large role in how people perceive the situation
- These characteristics must be acknowledged in order to effectively manage public behavior
Lost in Interpretation

They said the dose rate is 75 $\mu$Sv/hr in my garden.

They said I was exposed to 50 mSv.

Am I safe? What should I do?

Is my baby safe?

Do I need to have an abortion?

Dose

Bq/kg

Sv

Risks

above background

cps

High doses

Gy

High doses
“Forget the educational messages that we prepared. The public wants to know if it is safe for themselves and for their kids. And, if not, what do they do about it, period. They don’t care what a Sievert is.”

UPMC Center for Health Security Baltimore
Why is this more important than ever?
Do you know what this is?
The way we communicate has changed

- Library > 106,000 books (300 pages)
- Fax
- Scanner
- Photo camera
- Video camera
- Maps
- Audio recorder/DVD player
- Navigation system
- Mirror
- Compass
- Calculator

...and a whole satellite news gathering unit!
What Happens Online in 60 Seconds?

Twitter:
- 2012: 98,000 tweets
- 2013: 278,000 tweets
- 2014: 347,000 tweets

Facebook:
- 2012: 79,000 posts
- 2013: 2.5 m posts
- 2014: 3.3 m posts

YouTube:
- 2012: 25 hrs of video
- 2013: 74 hrs of video
- 2014: 120 hrs of video

Source: Centre for Learning and Teaching, Hong Kong
The Consequence of Failure

- Unintentional rumormongering (e.g. due to fear)
- Intentional rumormongering (e.g. terrorism)
REQUIREMENT 13

5.71. Arrangements shall be made so that in a nuclear or radiological emergency information is provided to the public in plain and understandable language.

5.72. The government shall ensure that a system for putting radiological health hazards in perspective in a nuclear or radiological emergency is developed and implemented with the following aim:

- To support informed decision making concerning protective actions and other response actions to be taken;
- To help in ensuring that actions taken do more good than harm;
- To address public concerns regarding potential health effects.
Working Group - Mission

• Drafting a Discussion Paper as a starting point for a discussion “on what needs to be done to enhance communication of what is safe”.

• “…this is living strategy, that (...) could be discussed at every meeting and that (...) can be modified when needed.”
Some Discussion Points I

• A differentiation between public risk communications and public emergency communications is needed. However we need to be aware that they are linked.

• The trustworthiness of the messenger is equally important as the message itself.
Some Discussion Points III

- We need to differentiate carefully between existing/planned exposure situations and an emergency exposure situation.

- The answer to “what is safe?” in general may be harder to answer than the question “am I safe?” in an emergency.
Some Discussion Points III

• The definition of putting health hazards into perspective in GSR Part 7 is unclear and needs to be better defined.

• There is already a system existing, that puts health hazards in perspective in an emergency. It could be used.
Expected Action

• Discussion of the draft paper and the theses/questions raised by the working group.

• Advice on the way forward and the process to come up with international guidance.
To be discussed... I

• The word “safe” has a long history and has been avoided in emergency communications and radiation protection. Any guidance based on, or just using, this word will raise fierce discussion. Do we need the word “safe” for our messages? Are there other words or formulations to bring across our messages effectively?

• The public and the media will always ask: “What is safe?” and “Are we safe?” Will any avoidance and paraphrasing of the word “safe” damage the credibility of public communications and decision makers during a radiation emergency?
To be discussed... II

• What makes risk associated with radiation during a nuclear or radiological emergency different from other risks? (pharmacological side effects, skin cancer caused by sunlight etc.) What can we learn – best and worst practice – from other industries (aviation, chemical, oil etc.) regarding public risk and emergency communications?

• Many challenges in communicating with the public during a radiation emergency arise from the public’s limited knowledge of the basics of radiation. Member States therefore should take actions to increase the baseline level of public knowledge by incorporating this topic e.g. in high-school curricula.
To be discussed... III

• Effective public communications during an emergency is not possible without a system that puts health hazards and inferred risk in perspective. However, the requirement in GSR Part 7 does not provide specific criteria. How could a system to place health hazards into perspective look like?

• Can there be any effective international guidance on putting health hazards into perspective as long there is fierce scientific argument in the radiation protection community about what can be considered to be safe and if there is any safe level of radiation at all (potential stochastic risk for any dose above zero etc.)? Developing plain language for the public communication of such a system can only be a second step.
To be discussed... IV

• How do we have to differentiate between decision makers and the public as target audiences when developing a system to put health hazards into perspective and corresponding plain language explanations?

• Does such a system need to differentiate between (educating) public risk communication at the preparedness stage and mitigating public emergency communication during the emergency response? If yes, how can the broader public be attracted to the topic and what risks could be attached to this approach?
To be discussed... V

• Would a scale provide a useful basis for a system to put health hazards into perspective at all? If yes, what are the basic principles of such a scale (levels and their assessment, visualization etc.)?

• As lessons learnt from most radiation emergencies show that plain language is needed to inform the public effectively, should dose and dose rate figures be avoided completely in public communications?
• Major radiation emergencies will most likely be a subject of high media interest worldwide. Does the use of different units in different countries contribute to confusion in international communication? If yes, how can this confusion be minimized?

• Hazard, risk, threat, danger – not all languages know these words and sometimes only use one to express all these varieties. Does international guidance need to reflect this fact and if yes: how?
To be discussed... VII

• What kind of plain language material is needed to support informed decision making?

• How do we measure if a system to put health hazards into perspective or the corresponding plain language communication is successful?
To be discussed… VIII

- How do we communicate the need to weigh all hazards, including the non-radiological ones, against each other when talking about protective actions? (e.g. that an evacuation might be the bigger risk compared to shelter in place when infrastructure is destroyed).

- Which organisation would be most trustworthy and should take the communication lead, especially regarding public emergency communications (regulator, EPR organisation, public health or environmental agency etc.)?
To be discussed... IX

- Risk communications concepts related to radiation emergencies need to be consistent with the approach of other international organizations. Otherwise, contradicting messages could lead to a lack of trust and a loss of credibility.
Thank you!