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Communication, Education and Public Information for Radiological Emergencies: What is next?

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After a large-scale radiological release, communicating radiation information becomes everyone's job; the President must speak to the nation, police chiefs must speak to first responders, first responders to affected populations, radiation safety officers to hospital staff, doctors to patients, neighbor to neighbor. During times of crisis, we come to one another as a system of support and information. Whether communications are effective in a high-stress, post-radiological-release environment invariably relies on one thing: preparedness.

A great deal of effort has been spent in preparation to communicate before, during and after a radiological release; however, the sheer number of audiences that require specialized communication means that there is great deal more work to be done. With limited expertise and limited budget with which to fill operational gaps, it is necessary to prioritize preparedness activities that will have the most positive effect during a response. This is exactly what the chairs of the National Council on Radiation Protection and Measurement's 2017 Annual Meeting, *Assessment of National Efforts in Emergency Preparedness for Nuclear Terrorism: Is There a Need for Realignment to Close Remaining Gaps?*, tasked the session chairs to accomplish. Each session chair was tasked to create a panel that would identify three to five priority action areas to reduce gaps in radiation preparedness.

From its early stages, I wanted to create a panel that included a diversity of experience in communication, response, and preparedness. By bringing different perspectives to the discussion of radiation communications gaps and opportunities, we would be able identify actions that meet multiple needs, not just the needs of one individual, agency, or profession. The Communication, Education and Public Information panel was comprised of Michelle Laver, who provided a federal government perspective based on her years of service in the Department of Defense and Department of Energy; Chief Robert Ingram, who provided a first responder perspective from years with the Fire Department of New York; and David Ropeik, who brought his experience as both a journalist and risk communication specialist to our panel. Together, we identified five priority action areas that we believe the National Council on Radiation Protection and its members can actively work towards for increased preparedness.

1) Have the experts agree on simplified explanations of what we do know about risks of radiation exposure.

It is difficult to make general statements about radiation-related health risk without also talking about age, sex, type of radiation, exposure pathway...; however, the phrase “It depends” is simply not an adequate response to a person who wants to know if they and their loved ones are safe. Having a national organization create a simple message about radiation risk that originates from where we agree on radiation exposure risks is, according to our panel, THE priority action. Having a clear, consistent message on health risk (and lack thereof) is critical to communicating with responders, medical professionals, senior officials and members of the public during a radiological emergency.

2) Create tools for the first responders to address their safety questions and concerns, and empower them to amplify public health and safety messages for the public.

The panel identified first responders as a priority audience for message development. We need to address first responders’ concerns about their safety regarding radiation exposure, which in turn will allow them to act with the confidence that their health is valued and being protected. First responders are also a trusted source of emergency information for the public. Educating first responders enables them to speak with the public in support of the State’s public health message.

3) Identify appropriate spokespeople and create tools for them to communicate early and often with evacuated individuals regarding cleanup and risks related to return.

Many resources currently available include pre-scripted messages for the first hours and days after a large-scale radiation release. Limited work has been done on pre-scripting messages for the recovery phase of an incident. Recovery is a broad topic covering everything from reentry and return to decontamination and waste management. In order to create an actionable task, the panel agreed that creating recovery messages for evacuated individuals could be the first step in filling the much larger recovery messaging gap.

4) Increase the number of skilled radiation communicators by identifying and training risk communication experts outside of government and, likely, outside the field of radiation protection.

The issue of “Where Are the Radiation Professionals?” is not limited to scientists. During a radiological emergency, the demand for individuals that specialize in communicating radiation information will vastly outnumber the existing expertise. Risk communication professionals outside the field of radiation protection may be willing and capable to provide

support during a response, but we must be willing to provide them with the right training and tools to do so.

5) Create a single location for the public to receive all information.

There is no single federal, state, local or non-governmental website where the public can access all the information for a radiological release. By directing the public to a single location for protective actions, monitoring information, and data, the entire response community will increase transparency with the public and limit opportunities for confusion or conflicting messages.

The following papers (Ingram 2018; Laver 2018; Ropeik 2018) delve into these gaps, and identify potential hurdles and opportunities for improvement. When thinking about radiological emergencies, especially the detonation of an improvised nuclear device, the gaps may seem insurmountable. But, remember, every gap we tackle, every tool we create, and every time we practice, we are increasing the national capability to communicate to affected populations and, ultimately, save lives after a radiological emergency.

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