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WNA: When words cause more harm than radiation

Recent exaggerations of the leaks and movement of radioactive water at the Fukushima Daiichi accident site may have caused worse societal and health impacts than the events themselves.

While the water has led to no worker health impacts and zero detected offsite contaminationⁱ; the world outside of Japan was subjected to headlines announcing a serious deterioration of site conditions, ongoing ocean pollution and even a new nuclear disaster^{ii iii iv}. Apparently as a result of such reports a South Korean airline cancelled flights to the area^v, Tepco's stock price plunged^{vi} and Tokyo's bid for the Olympic Games in 2020 was put in jeopardy^{vii}. It is beyond question that the general level of anxiety within some members of the public was also heightened needlessly.

Such inflated commentary contributes to myths about the accident that experts have long sought to dispel. "Radiation exposure following the nuclear accident at Fukushima Daiichi did not cause any immediate health effects. It is unlikely to be able to attribute any health effects in the future among the general public and the vast majority of workers,"^{viii} concluded the Vienna-based United Nations Scientific Committee on the Effect of Atomic Radiation (UNSCEAR) in May this year. This statement referred to radioactive releases to sea and air orders of magnitude greater than the recent leaks to ground.

Letters^{ix} from radiation professionals to the Japanese public published in August pointed out that the potential health effects of radiation from the 2011 accident are minimal compared to observable effects of stress and stigmatization on Fukushima residents. Exaggerated coverage of the leaks contributed to that stress, while expert information of relevance to the people of Fukushima received virtually no attention.

News providers need to be aware that their coverage can inadvertently exacerbate the psychological effects of a nuclear incident. Even though the information available is sometimes confusing, they should strive for context and avoid reliance on self-appointed experts with a determined agenda to spread fear. Advice from competent radiation professionals, such as UNSCEAR or national authorities in any given country, can provide the necessary context to understand the likely health and environmental impacts of an event. A firm line must be drawn between events with public impact and those such as the recent leaks which have no consequences beyond the plant perimeter. Nuclear industry communicators must do their part to explain the full context of safety-related events as well as the technical details.

Nuclear power plays a vital role in the mix of many countries today. It provides affordable, reliable and clean electricity to countries home to over two thirds of the world's population. The operation of these reactors has prevented approximately 1.84 million air pollution related deaths according to scientists James Hansen and Pushker Kharecha^x by averting dangerous emissions from other energy sources. This takes into account estimates for the impacts of nuclear accidents. It is extraordinary that these health benefits, as well as nuclear's low carbon credentials and established role in preventing climate change, seem to be entirely forgotten in the aftermath of the recent leaks which have led to no measurable health or environmental impact.

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ⁱ http://www.mofa.go.jp/policy/page3e_000072.html

ⁱⁱ <http://www.reuters.com/article/2013/08/20/japan-fukushima-leak-idUSL4N0GL16I20130820>

ⁱⁱⁱ <http://www.bbc.co.uk/news/science-environment-23779561>

^{iv} <http://www.cbc.ca/news/world/story/2013/08/22/fukushima-japan-radioactive-leak.html>

^v <http://www.japantimes.co.jp/news/2013/08/21/business/fukushima-fears-lead-asiana-to-drop-that-route/#.Ui2pA7lIRm0>

^{vi} <http://www.marketwatch.com/investing/stock/9501?countrycode=jp>

^{vii} <http://www.telegraph.co.uk/news/worldnews/asia/japan/10287891/Fukushima-failures-threatening-to-derail-Tokyos-2020-Olympics-bid.html>

^{viii} <http://www.unep.org/NewsCentre/default.aspx?DocumentID=2716&ArticleID=9518>

^{ix} http://www.kantei.go.jp/foreign/incident/expert_group.html

^x <http://pubs.acs.org/doi/abs/10.1021/es3051197>