



National Center for  
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FOR IMMEDIATE RELEASE

**Statement By Dr. Irwin Redlener on U.S. Preparedness for  
Catastrophic Nuclear Power Plant Accidents and the U.S. Capacity to  
Protect Children With Appropriate Availability of Potassium Iodide**

WASHINGTON (March 29, 2011) – I join Congressman Edward Markey today to highlight my concerns on overall U.S. readiness for the possibility of a catastrophic nuclear power plant accident and to underscore the particular failure to protect children by appropriate availability of potassium iodide (KI) needed to prevent cancer in those who could be exposed to a radioactive iodine. It is clear that the probability of such a disaster is low, but the events in Japan have demonstrated that we must be prepared for a range of disasters we would hope never occur.

Less than three weeks ago the world witnessed yet another major disaster that in a matter of minutes destroyed communities, displaced hundreds of thousand of people and claimed thousands of lives. We have seen this before. Last year's earthquake in Haiti, floods in Pakistan and New Zealand, and many other natural catastrophes were a stark reminder of unpredictable violence that can occur almost anywhere on the planet.

But there was something different about the chain of events that struck the northeastern coast of Japan.

First, the unfolding of natural disasters: There was the sheer power of the earthquake centered just off-shore that reached an astonishing 9.0 on the Richter scale, followed by hundreds of aftershocks, many of which themselves were large enough to be called powerful.

That initial quake was immediately followed by the horrifying specter of a 30-foot-high tsunami that wiped out lives and communities, causing an enormous evacuation of hundreds of thousands of survivors to inland shelters.

Second, an enormous humanitarian crisis: Once in the shelters, the problems of logistics and supplies of food, water and medicines became apparent and remain increasingly problematic.

Third, because of secondary complications related to the catastrophic natural events, the Fukushima nuclear power generators began to fail, manifest by rising temperatures, explosions and significant radiation release. This is a story that, as we speak, continues to evolve, but has managed to reawaken global fears – warranted or not – of radiation, deep concerns about the overall safety and security of nuclear energy and a flurry of nerve-racking mixed messages from the Japanese government and Fukushima's private sector owners.

Meanwhile, nobody can predict for sure whether a full-scale melt-down will occur, and, if it does, how much consequent release of significant radiation will occur over a broad swath of inhabited territory, in Japan and beyond.

Whatever the eventual outcome, this will be considered one of the earliest examples of a complex megadisaster, where a major, life-threatening industrial or infrastructure failure has combined with a natural catastrophe.

Beyond the sympathy and grief we share with Japan and its citizens, there are important observations we in the United States must make. And among the reasons the events in Japan have raised deep concerns about the state of preparedness in the U.S. is that on March 10, one day prior to the record-breaking earthquake, Japan was considered to be the most prepared nation on the planet, especially when it came to earthquakes and tsunamis.

Their citizens understand the risks and practice the proper responses. Unlike Americans, they have a national plan and their citizens have embraced – not rejected – the value of being prepared as a necessary responsibility.

The fact that many concerns have arisen about the effectiveness of the Japanese government in responding to the disaster gives us pause because (a) that nation is, as is our own, economically and technologically highly developed, and (b) far more prepared than the United States.

That's why the question "what if it happened here" is so germane to Americans.

Representative Markey has called this press conference to focus in on one of the more important aspects of nuclear plant disaster preparedness that has lurched into the spotlight since problems at the Fukushima plants emerged.

As a public health professional and as a pediatrician, I share his concerns.

Not only am I generally concerned about the United States' general capacity to plan for and respond to very large-scale disasters, but I am deeply worried that our specific ability to assure the safety of nuclear power plants in the U.S. is at best questionable. Too many plants, including (and especially) Indian Point just north of New York City, are older-generation facilities located in places vulnerable to earthquakes and other natural disasters.

Unfortunately, the response planning for a potential serious problem, where large amounts of radiation might be released, has been inadequate on many levels. And two of the most serious flaws in the planning for a disaster at Indian Point, shared by many other operating plants in the U.S., are:

First, unrealistic and infeasible evacuation plans. The very idea of a 10-mile limit for evacuation plans seems to be a decision made on the basis of cheaper and easier planning, rather than reality-based predictions of expected radiation patterns. How can we possibly reconcile the U.S. government's order to keep U.S. citizens 50 miles from the damaged Japanese plants with the mere 10-mile disaster radius for our own nuclear facilities?

Second, our children are not adequately protected. Removing children from harm's way is certainly a primary objective. But assuring timely distribution and administration of potassium iodide to children about to be exposed or just exposed to radioactive iodine, I-131, is an essential step. While some experts argue that getting out of harm's way, being very careful about ingesting potentially I-131-contaminated foods is a sufficient step, few could make the case that KI should not be provided and appropriately administered.

But the existing plans for the delivery, distribution, stock-piling and administration of KI to potentially at-risk children is erratic to the extreme. Some communities are doing a reasonable job here, but most are not even close.

And KI myths are rampant.

- KI is not a general panacea for all things radioactive. It does nothing for the long-lived radiation from Cesium 137 – and nothing for the lethal gamma radiation that can initially be generated over a short distance from a major accident.
- KI is far less important for fully mature adults than for growing children and pregnant women. It is the active thyroid glands of growing humans that rapidly absorb radioactive iodine which, once there, can result in significant increases in thyroid cancer later in life.
- KI is relatively quite safe, but in order to be effective it must be administered just before or within hours of exposure to the radioactive version of this element.

And there are indeed lessons to be learned with respect to this public health threat from the aftermath of the horrendous accident at Chernobyl, Ukraine, in 1986. According to Laurie Garrett, senior fellow for global health at the Council on Foreign Relations: "Thirteen years after the Chernobyl disaster, the incidence of pediatric thyroid cancer was 52 times the region's pre-1986 level. In Belarus...it was 113 times higher than the country's pre-1986 diagnosed incidence of thyroid cancer. In the immediate area surrounding Chernobyl...[the thyroid cancer incidence level is] more than 500 times the pre-1986 levels..."

In spite of its many promises at a time when the world needs to dramatically reduce its dependence on fossil fuels, there is much that needs to be done to make sure that nuclear power does not present the risks to population health that is currently the case.

One step that we must take immediately, in the context of making workable, effective response plans in the event of a catastrophic emergency, is to safeguard and protect our youngest citizens.

And this critical goal must include comprehensible, feasible, tested and publically acceptable plans to make sure that no child is without immediate access to KI – if and when the need arises.

Finally, the availability of KI – and of appropriate response planning – should not be a matter of geographic or political good fortune. Proper responses that protect every child in the aftermath of a disaster should be mandatory, not a matter of where he or she happens to live.

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### **Children's Health Fund**

Founded in 1987 by singer/songwriter Paul Simon and pediatrician/advocate Irwin Redlener, M.D., Children's Health Fund (CHF) is the nation's leading pediatric provider of mobile-based health care for homeless and low-income children and their families. CHF's mission is to bring health care directly to those in need through the development and support of innovative medical programs, response to public health crises, and the promotion of guaranteed access to health care for all children. CHF currently has 50 mobile medical clinics serving hundreds of locations across the country. Over the past 24 years, the organization has supported more than two million health care visits for disadvantaged children, often in places where doctors and health care providers are in short supply. For more information about CHF, visit [www.childrenshealthfund.org](http://www.childrenshealthfund.org).