

Doctors: UNSCEAR 2013 report systematically underestimates health impact of Fukushima catastrophe

As physicians concerned with the effects of radioactive fallout on human health and the ecosystem, we have reviewed the upcoming United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) report to the UN General Assembly. We appreciate the effort made by UNSCEAR committee members to evaluate the extensive and complex data concerning the Fukushima nuclear catastrophe. While parts of the UNSCEAR report will be useful in the future to assess the consequences of the nuclear meltdowns on public health and the environment, we believe the 2013 UNSCEAR report systematically underestimates the true extent of the catastrophe. Many of the assumptions are based on the two WHO/IAEA reports published in May 2012 and February 2013, which did not accurately portray the true extent of radiation exposure, followed faulty assumptions, ignored the ongoing radioactive emissions over the past 2½ years and excluded non-cancer effects of radiation.

Regarding UNSCEAR's current report to the UN General Assembly, we find the following 10 issues to be most critical:

- 1) It was mainly the direction of the wind that prevented a larger catastrophe in Japan
- 2) The nuclear catastrophe is ongoing and continues to be a source of radioactive emissions
- 3) Estimates of radiation emissions and exposure should be based on neutral sources
- 4) The endorsement of Fukushima produce increases the risk of radioactive exposure
- 5) Whole Body Counters underestimate the extent of radioactive exposure
- 6) TEPCO's employee dose assessments cannot be relied upon
- 7) The special vulnerability of the embryo has to be taken into account in regards to radiation
- 8) Thyroid malignancies and other cancers have to be monitored for several decades
- 9) Monitoring should also occur for non-cancer diseases and genetic radiation effects
- 10) Comparisons between nuclear fallout and background radiation are misleading

As of August 20, 2013, 18 children in Fukushima were confirmed to have thyroid cancer, and 25 more have suspect biopsies, indicating possible malignancies. Although it is not possible to determine whether or not these cancers are radiation-induced, Japanese cancer statistics suggest an incidence of less than 1 case of thyroid cancer in this population per year. Moreover, the number of cases is likely to increase, as about 2/5 of the 369,813 Fukushima children have yet to receive their first thyroid ultrasound examination and about half of the children with suspect results are still awaiting their follow-up exams. The government failed to protect children by refusing to distribute stable iodine and by raising the permissible annual exposure limits to 20 mSv, thus effectively forcing many children to live in radioactively contaminated areas. School officials are ignoring radiation hot spots just a few feet outside of school premises and are reintroducing Fukushima rice to school lunches. As the government urges people to return to their homes in the evacuated zones, the decontamination efforts have failed to deliver the expected results.

Reducing the medical effects of the Fukushima nuclear disaster to a statistical problem by stating that "*no discernible increased incidence of radiation-related health effects are expected among exposed members*" is cynical and dismisses the individual stories of suffering of thousands of families. Predictions can only be as good as the presumptions and data they are based on, and studies designed to obscure measurable effects in averages serve only the interest of the nuclear industry. Instead, UNSCEAR should utilize neutral sets of data, acknowledge and name inherent uncertainties in dose estimates, consider the increased vulnerability of certain population groups, cite the full range of possible exposure rates, analyze effects of radiation on the non-human biota and incorporate the latest information about ongoing radioactive emissions in their report. This would allow UNSCEAR to present a realistic picture of the effects people can expect from the radioactive fallout in the coming decades, including predictions about thyroid cancer, leukemia, solid tumors, non-cancer diseases and genetic defects, all of which have been found in the populations affected by the Chernobyl nuclear catastrophe.

The events in Fukushima were not the worst-case scenario, but could have turned for the worse if the wind had blown in a different direction. This is an important factor to consider for future nuclear safety guidelines and recommendations. It is critical that physicians and medical personnel understand the true consequences of radiation exposure so that proper monitoring is conducted in all those who were exposed to radioactive fallout. Ultimately, what is at stake is not only the principle of independent scientific research, which does not bow to the influence of powerful lobby-groups, but also the universal right of every human being to a standard of living adequate for health and well-being. This should be the guiding principle in evaluating the health effects of the nuclear catastrophe in Fukushima.