Assessments by International Organizations

UNSCEAR 2020/2021 Report (7/8): Assessment of Health Effects on the General Public

- In the years since the publication of the UNSCEAR 2013 Report, no adverse health effects among Fukushima Prefecture residents have been documented that are directly attributable to radiation exposure from the accident at Tokyo Electric Power Company (TEPCO)'s Fukushima Daiichi NPS.
- No acute health effects that could have been attributed to radiation exposure had been reported.
- Currently available methods would most likely not be able to demonstrate an increased incidence in the future disease statistics due to irradiation.
- The UNSCEAR's updated statistical power analyses suggest that excess thyroid cancer risk that could be inferred from radiation exposure was most likely not discernible in any of the age groups considered.
- These observations suggest that the increased incidence rates may be due to over-diagnosis (i.e., detection of thyroid cancer that would not have been detected without the screening and would not have caused symptoms or death during a person's lifespan).

The UNSCEAR assessed public health effects as indicated above based on its exposure dose assessment.

A substantial number of thyroid cancers have been detected among exposed children. However, the excess does not appear to be associated with radiation exposure, but rather a result of the application of highly sensitive ultrasound screening procedures. The reasons are as follows:

(a) no excess of thyroid cancer has been observed in those exposed before age 5 in Fukushima Prefecture, in contrast to the large excess observed in the same age group exposed as a result of the Chornobyl accident; and

(b) thyroid cancers were observed within 1 to 3 years after exposure following the accident in Fukushima Prefecture rather than beginning 4 to 5 years after exposure as in Chornobyl and other radiation studies.

There has been no credible evidence of excess congenital anomalies, stillbirths, preterm deliveries or low birthweights related to radiation exposure. Increases in the incidence of cardiovascular and metabolic conditions have been observed among those evacuated following the accident but are probably associated with concomitant social and lifestyle changes and are not attributable to radiation exposure.

[Relevant parts in the Report]

- UNSCEAR 2020/2021 Report (prepared based on paragraphs 213, 215, and 225 on pages 84 to 88 and paragraphs 244 to 248 on pages 96 to 97, ANNEX B)

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