

Two sets of measurement information of radionuclides served as information sources for assessing public exposure doses.

- (i) Measured values of I-131 in the thyroid, especially in the thyroid of children
- (ii) Results of the whole-body monitoring of Cs-134 and Cs-137

1. The UNSCEAR's estimates of settlement-average absorbed doses to the thyroid from internal exposure were up to about five times higher than the corresponding values derived from direct monitoring of this group.
2. The results of the whole-body counting of more than 106,000 residents of Fukushima Prefecture were substantially lower than the UNSCEAR's estimates of average effective doses through inhalation and ingestion of Cs-134 and Cs-137.

The UNSCEAR Report suggests the possibility of certain overestimation in assumptions on protective measures and factors concerning dose measurements due to lack of information when estimating public exposure doses. This possibility was also confirmed in the comparison with the results of the measurement of absorbed I-131 to the thyroid conducted in Fukushima Prefecture after the accident at Tokyo Electric Power Company (TEPCO)'s Fukushima Daiichi NPS and the whole-body counting of Cs-134 and Cs-137.

Data used for the comparison was as follows.

- (i) Absorbed doses to the thyroid due to internal exposure: Data for the thyroid monitoring carried out targeting 1,080 children aged between 1 and 15 years in Iwaki City, Kawamata Town and Iitate Village over the period from March 26 to 30, 2011, using hand-held dose-rate instruments
- (ii) Effective doses through internal exposure: Data for the whole-body counting targeting more than 106,000 residents of Fukushima Prefecture conducted as part of the Fukushima Health Management Survey, and data for the whole-body counting targeting 33,000 residents of Fukushima Prefecture and neighboring prefectures conducted by researchers from October 2011 to February 2012

As shown in the slide above, the UNSCEAR Report concludes as follows with regard to the comparison between its estimation and these direct measurements.

- Regarding (i) above, the UNSCEAR's estimates were up to about five times higher than the settlement-average absorbed doses obtained through direct measurements.
- Regarding (ii) above, the UNSCEAR's estimates were substantially higher than the results of direct measurements (direct measurement data is substantially lower than the UNSCEAR's estimates).

[Relevant parts in the reports]

- UNSCEAR Report (prepared based on paragraphs 116 to 118 on page 59, Scientific Annex A (Japanese-language version)) (Original English version: paragraphs 116 to 118 on page 62)

Included in this reference material on March 31, 2015