UNSCEAR 2020/2021 Report (6/8): Comparison with Direct Measurements

When comparing the UNSCEAR's estimate of municipality-average absorbed doses to the thyroid from internal
exposure and the corresponding values derived from direct monitoring of the same targeted groups, the ratio
varies from about 0.4 to 1.3. Thus, the comparison shows very good agreement between the two sets of data.

Table. Comparison between estimated absorbed doses to the thyroid (median				
values) and measured doses (mGv)				
Area	20 years old (adults) *1		1 year old (infants)	
	Estimated doses	Measured doses	Estimated doses	Measured doses
lwaki City	1.2		2.6	4.6(55) *2
Kawamata Town	0.95		2.1	4.5(286) *2
litate Village	1.4		2.8	7.1(79) *2
Namie Town ^a	22	21(6) *2	41	
Minamisoma City ^a	5.8	6.5(15) *2	12	10(1) *2
Tamura City	0.50	1.2(1) *2	1.2	

a: Excluding evacuees immediately after the accident

The sums of the doses from inhalation and ingestion intakes of Cs-134 and Cs-137 estimated by the UNSCEAR are broadly in agreement with the committed effective doses obtained through the WBC measurements targeting residents in Fukushima Prefecture.

A comparison has been made between estimated doses in the UNSCEAR 2020/2021 Report and measured doses through thyroid measurements conducted in Fukushima Prefecture immediately after the accident at Tokyo Electric Power Company (TEPCO)'s Fukushima Daiichi NPS. Additionally, a comparison with the results of the WBC measurements of Cs-134 and Cs-137 has also been made.

As shown in the Table above, these measured data and estimates by the UNSCEAR are almost the same.

[Relevant parts in the Report]

 UNSCEAR 2020/2021 Report (prepared based on paragraph A136 on pages 180 to 181 and paragraph A140 on page 183, ANNEX B)

Included in this reference material on March 31, 2023

^{*1:} Estimated doses for 10-year-old children are omitted here.

^{*2:} Figures in the parentheses are the numbers of the subjects for the measurements.