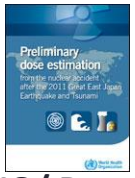
Assessments by International Organizations

Changes in International Organizations' Assessments

UNSCEAR White Papers (2015-2017)

Systematically and continuously ascertain and assess scientific information disclosed after the publication of the UNSCEAR 2013 Report

2011.3 — 2012.5 — 2013.2 — 2014.4 — 2021.3



WHO/ Dose Assessment Report / Health Risk Assessment Report

- Reflected data up to September 2011
- With the aim of estimating health risks due to residents' exposure for the first one year after the accident, the WHO conservatively assessed calculated doses based on limited data and also assessed health risks under conservative assumptions.

UNSCEAR 2013 Report

- Reflected data up to September 2012
- The UNSCEAR set assumptions as close to the reality as possible based on information and measurement data available at that point in time, and assessed exposure and possible health effects in the future.
- Available data were limited and the assessment contains uncertainties.

UNSCEAR 2020/2021 Report

- Reflected data up to December 2019
- The UNSCEAR reviewed its dose assessment by conducting improved model calculations based on additional monitoring data made available after the publication of the UNSCEAR 2013 Report and on comprehensive knowledge on Japanese people's dietary habit and behavior.

From conservative assessment immediately after the accident to realistic assessment

Reflected new knowledge obtained after the publication of the UNSCEAR 2013 Report

Assessments by International Organizations

Major Conclusions of the Reports of International Organizations

	Major conclusions
WHO Reports	• Even in the area where the highest exposure dose was estimated, no significant increase would be observed in risks of childhood thyroid cancer and other types of cancer or leukemia and increased incidence of these diseases exceeding natura variation is hardly expected. • The results suggest that increases in the incidence of diseases attributable to the additional radiation exposure are likely to remain below detectable levels.
UNSCEAR 2013 Report	• It is not likely that any significant changes attributable to radiation exposure due to the accident would arise in future cancer statistics. • There is the possibility that thyroid cancer risks may theoretically increase among the group of children whose estimated exposure doses were at the highest level. Therefore, their situations need to be closely followed up and assessed.
UNSCEAR 2020/2021 Report	• **No adverse health effects among Fukushima residents directly attributable to radiation exposure have been observed, and future health effects directly related to radiation exposure are unlikely to be discernible.** • **Increases in incidence of thyroid cancer in the Thyroid Ultrasound Examination that has been conducted in Fukushima after the nuclear accident are considered to be the result of sensitive ultrasound screening procedures.**

Assessments by International Organizations

Comparison of Reports (Assessment Results)

- Estimated ranges of average effective doses for groups of evacuees for the first one year after the accident (The unit is mSv.)

UNSCEAR 2020/2021 Report	20 years old (adults)	1 year old (infants*3)
(Group 1) Residents in Fukushima Prefecture who were evacuated：	0.046 - 5.5	0.15 - 7.8
(Group 2) Residents in Fukushima Prefecture who were not evacuated：	0.079 - 3.8	0.12 - 5.3
(Group 3) Prefectures neighboring Fukushima Prefecture*1：	0.10 - 0.92	0.15 - 1.3
(Group 4) The rest of Japan：	0.004 - 0.36	0.005 - 0.51

UNSCEAR 2013 Report	20 years old (adults)	1 year old (infants*3)
① Precautionary evacuation areas：	1.1 - 5.7	1.6 - 9.3
② Deliberate evacuation areas：	4.8 - 9.3	7.1 -13
③ Non-evacuated areas in Fukushima Prefecture：	1.0 - 4.3	2.0 - 7.5
④ Prefectures neighboring Fukushima Prefecture*2：	0.2 - 1.4	0.3 - 2.5
⑤ The rest of Japan：	0.1 - 0.3	0.2 - 0.5

WHO Reports	20 years old (adults)	1 year old (infants*3)
① Fukushima Prefecture：	1 - 50	1 - 50
② Prefectures neighboring Fukushima Prefecture：	0.1 - 10	0.1 - 10
③ The rest of Japan：	0.1 - 1	0.1 - 1

*1: Miyagi, Yamagata, Ibaraki and Tochigi Prefectures (Group 3)
The radionuclide deposition density information in parts of these prefectures was sufficient for estimates of doses to be made from inhalation and external exposure pathways at the municipality-average level on a 1-km square basis. As a result, prefectures making up Group 3 are different from those considered in the UNSCEAR 2013 Report.

*2: Iwate, Miyagi, Ibaraki, Tochigi, Gunma, and Chiba Prefectures

*3: The original text in English, the term "infant" is used for young children and babies. This table uses the descriptions in the original texts of Japanese versions of the Reports. As the WHO Reports are not translated into Japanese, the same expressions as used in the UNSCEAR 2020/2021 Report are used here.