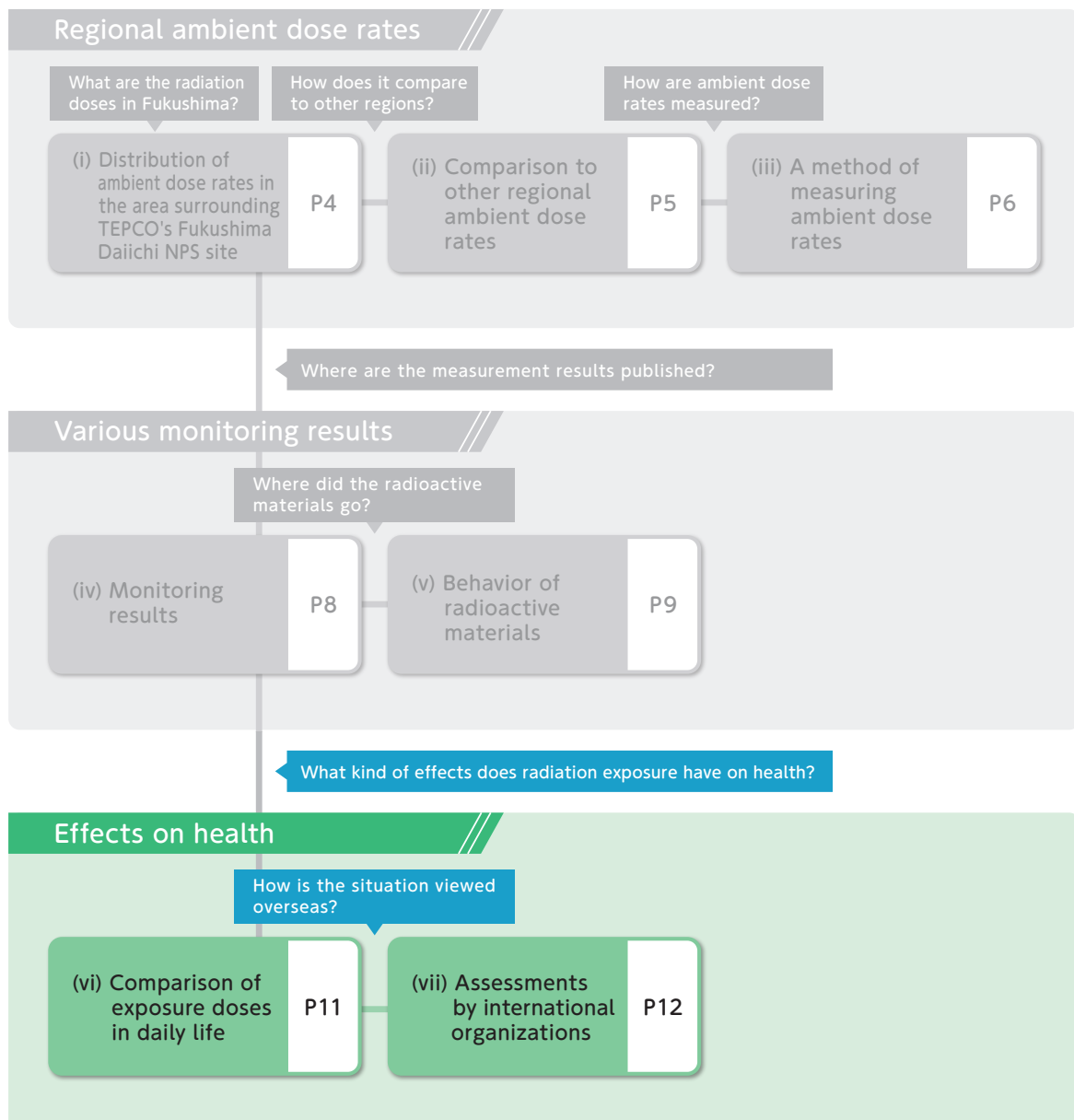




# Theme: Effects on health

This is a summary of the radiation exposure in daily life. We will also introduce assessments of radiation exposure by international organizations.

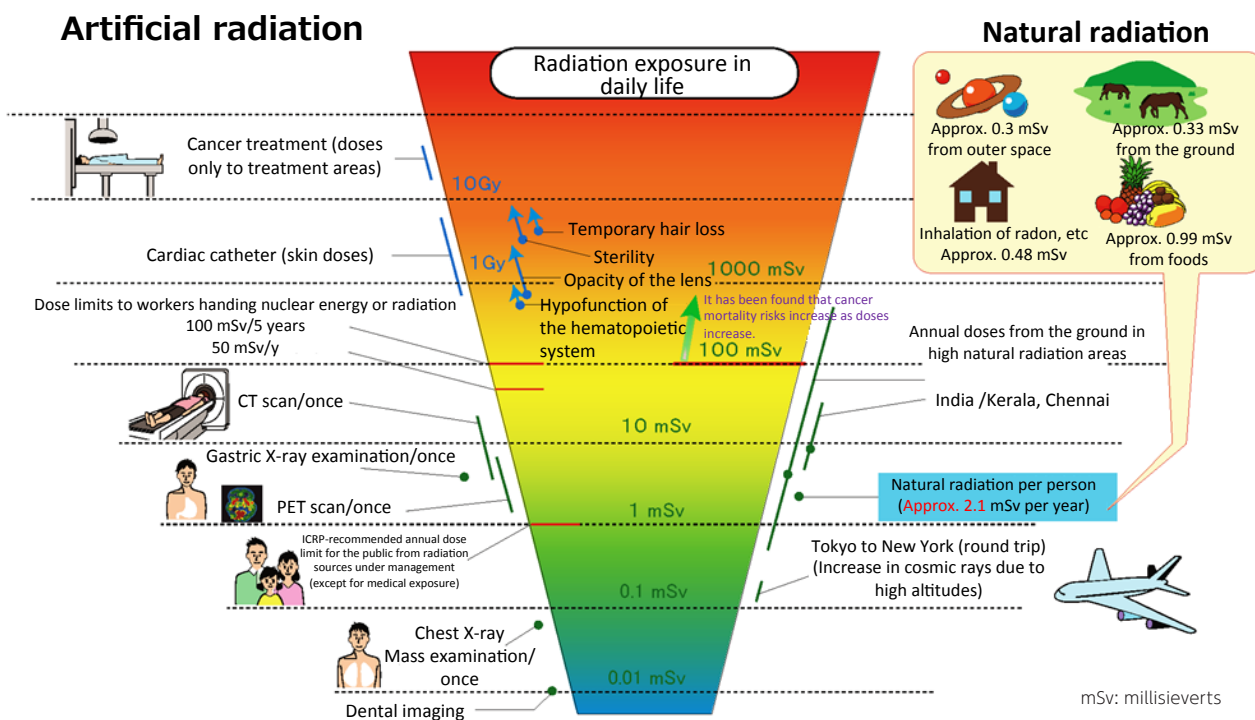




## (vi) Comparison of exposure doses in daily life

What exposure doses are present in daily life?

### Comparison of Exposure Doses (Simplified Chart)



Sources:

- The 2008 UNSCEAR (United Nations Scientific Committee on the Effects of Atomic Radiation) Report
  - The 2007 ICRP (International Commission on Radiological Protection) Report
  - The exposure guideline of the Japan Association of Radiological Technologists
  - "Life Environmental Radiation (Calculation of the National Dose)," new edition
- Prepared by the National Institute of Radiological Sciences based on the sources above (May 2018)

For more information about comparison of exposure doses, see page 77 of Vol. 1, FY2022 edition.

Exposure doses found to have health effects on people are considered to be at levels exceeding 100 millisieverts.

For more information about survey results, see page 117 of Vol. 1, FY2022 edition.



## (vii) Assessments by international organizations

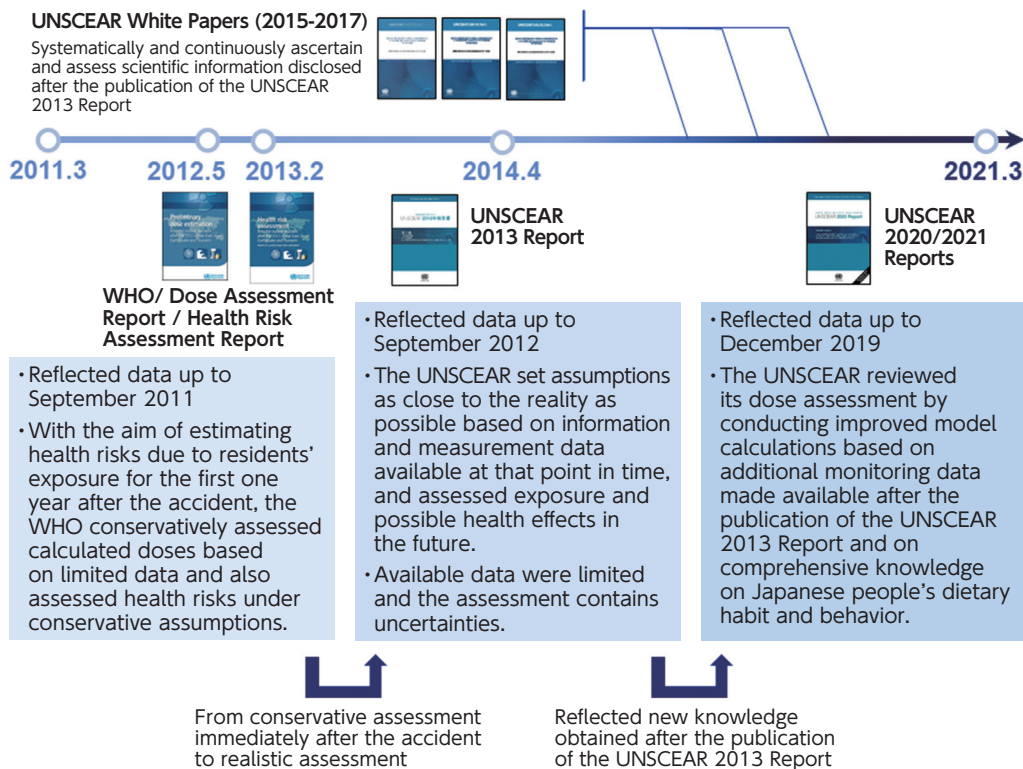
Visiting

Regional ambient dose rates

Various monitoring results

Effects on health

After the accident at Tokyo Electric Power Company (TEPCO)'s Fukushima Daiichi NPS, the World Health Organization (WHO) and the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) published reports on assessment of exposure doses due to the accident and on health effects of radiation exposure.



How did international organizations assess the effects of the accident at TEPCO's Fukushima Daiichi NPS? Let's take a look at the main conclusions by major international organizations.

	Major conclusions
WHO Reports	<ul style="list-style-type: none"> <li>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 natural variation is hardly expected.</li> <li>The results suggest that increases in the incidence of diseases attributable to the additional radiation exposure are likely to remain below detectable levels.</li> </ul>
UNSCEAR 2013 Report	<ul style="list-style-type: none"> <li>It is not likely that any significant changes attributable to radiation exposure due to the accident would arise in future cancer statistics.</li> <li>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.</li> </ul>
UNSCEAR 2020/2021 Report	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>

The WHO Reports published in 2012 and 2013, along with the UNSCEAR 2013 Report, state that their assessments of exposure doses contain certain uncertainties due to uncertainties inherent to basic data. However, the UNSCEAR 2020/2021 Report shows conclusions with less uncertainties on many issues as a broader range of knowledge became available.

For more information about survey results, see pages 189 and 190 of Vol. 1, FY2022 edition (available in Japanese only).