Press Briefing

The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)

“Levels and Effects of Radiation Exposure due to the nuclear accident after the 2011 great east-Japan earthquake and tsunami”

2 April, 2014. Vienna, Austria
Early exposure

Air

Food and water

Deposits
Later exposure

Food

Deposits
Method

Measurements

Behaviour, Demographics

Risk knowledge

Accident conditions, Meteorology

Map radionuclide patterns

Assess exposures

Interpret health implications

Measurements

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Interpret health implications
Exposures

• Vary with location, age and behaviour
• For most people in Japan, far less than from natural background radiation
• Exposures in first year highest with on-going low exposures in later years
Key points

• Wide range of information used
• Considered key exposure pathways
• Highest doses to evacuees, but protective measures reduced exposures significantly
• For many people doses within range of natural background variation
Overall, cancer rates will remain stable

- Lifetime baseline risk of solid cancer in general Japanese population about 35%
- Doses to general Japanese population low
- At the highest levels – additional lifetime risk ~0.1%

Thus, no discernible changes in future cancer rates or hereditary diseases expected
Theoretical increase in future risk of thyroid cancer for children most exposed

- Thyroid cancer is rare disease among young children

- Thyroid doses were much lower than at Chernobyl
No discernible increase in cancer rates for workers

- For few workers, possibility of hypothyroidism (rare disease)
- Little likelihood for circulatory diseases
Future scientific research needs

- Keep situation under review, including:
  - Environmental situation: improve estimates of releases to the atmosphere and the ocean
  - Follow remediation impact
  - Reduce uncertainties in dose distribution for public/workers