



UNSCEAR

United Nations Scientific Committee
on the Effects of Atomic Radiation

Estimated exposure of evacuees

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Implications of Information Published Since the UNSCEAR 2013 Report
9 March 2021 (Online launch)



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Evacuation scenarios

More realistic evacuation scenarios used in 2020 Report

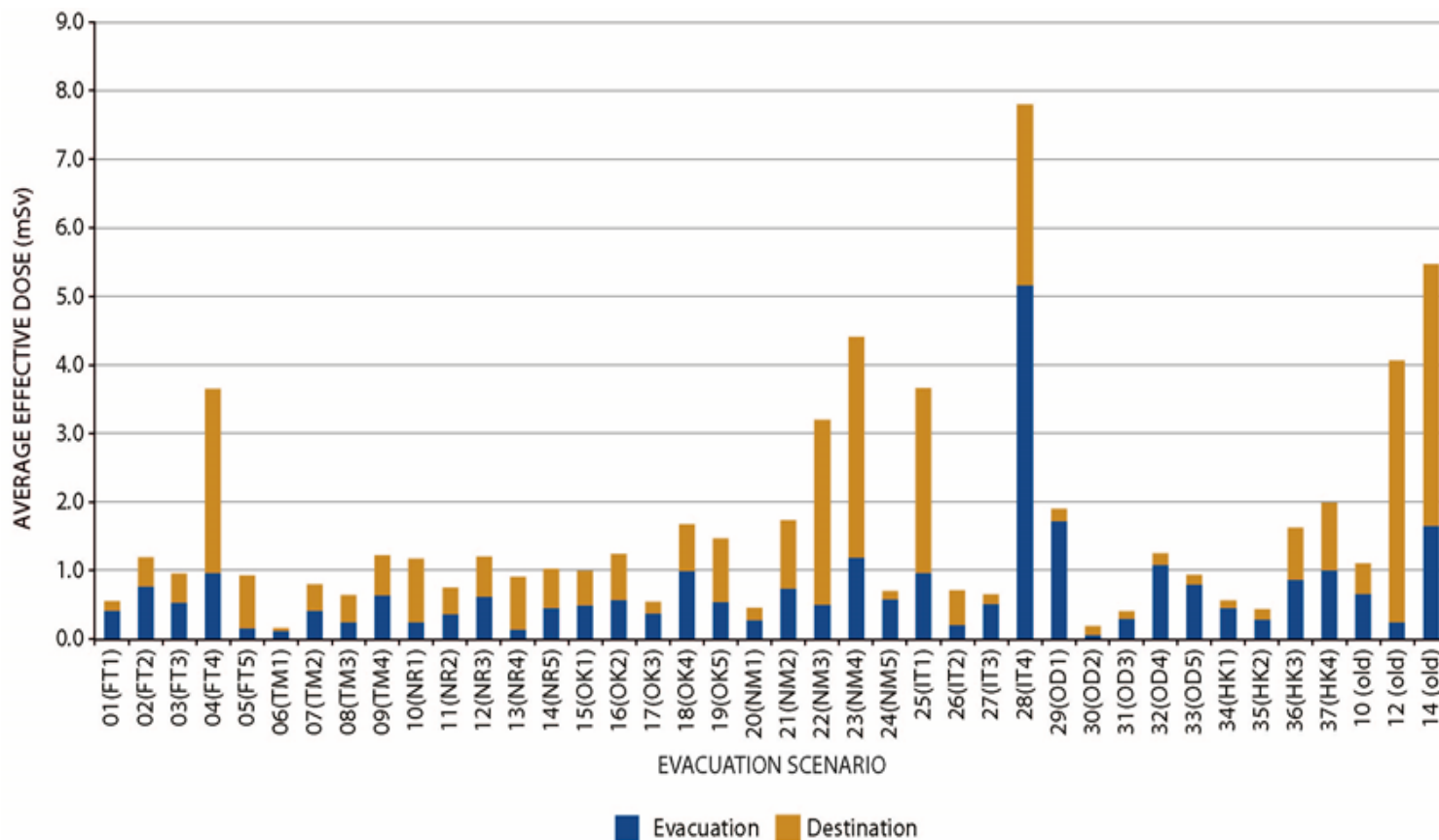
- **2013 Report:** 18 scenarios developed by NIRS (Japan) to represent the movements of evacuees. Based on results of a questionnaire survey of whole of Fukushima Prefecture.
- **2020 Report:** 37 scenarios derived from random sampling of behavioural questionnaires of children from each of 7 municipalities in the evacuation area (plus 3 scenarios from the 2013 Report, not covered by new scenarios).



Main findings for estimated exposure of evacuees

- The estimated average effective doses to infants in the first year for the different evacuation groups ranged from about 0.2 mSv to about 8 mSv.
- High doses did not occur because of the evacuation (but also due to other non-human factors, mainly the wind blowing to the ocean during the first 2 days of the accident).

Effective dose in the first year to infants

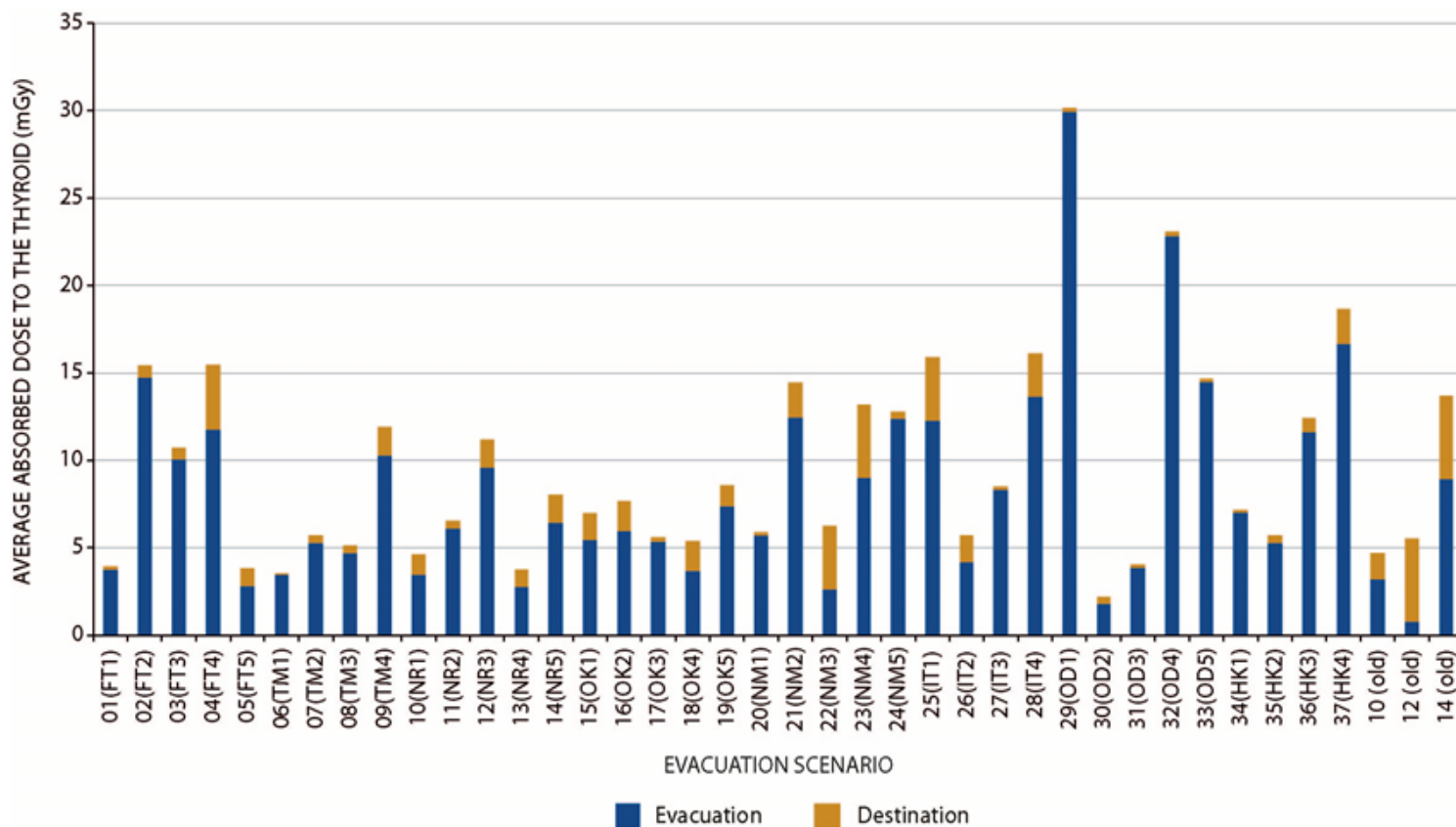




Main findings for estimated exposure of evacuees

- Average absorbed doses to the thyroid in the first year ranged from about 2 mGy to about 30 mGy for evacuated infants.
- The evacuation averted absorbed doses to the thyroid of infants of up to about 500 mGy.

Absorbed dose to the thyroid in the first year to infants

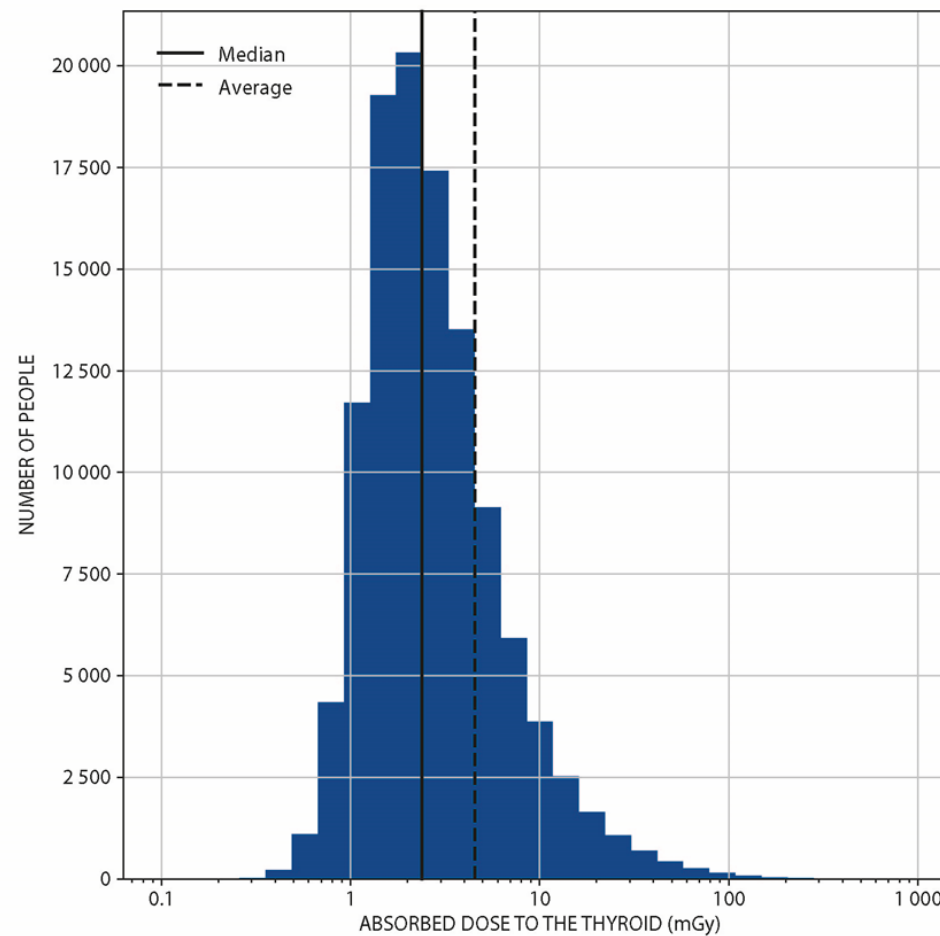
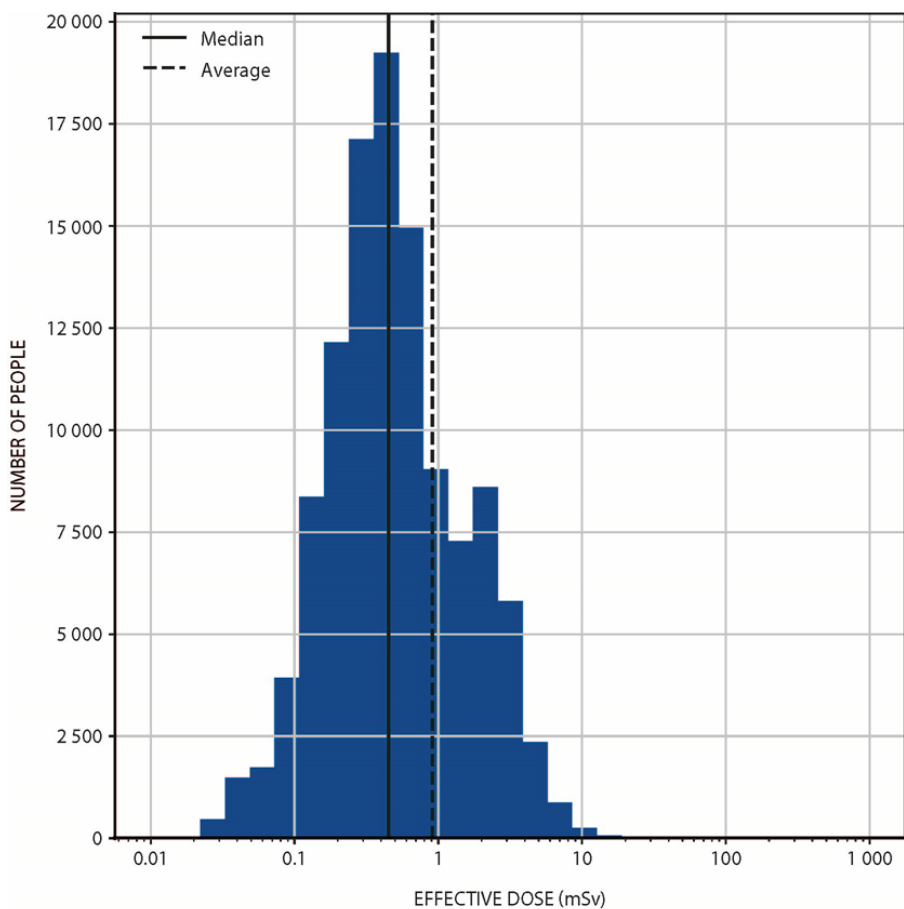




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Distributions of doses in the first year to evacuees





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Lessons learned

- Timely monitoring of evacuees and collecting information about their behaviour would enable more reliable estimates of dose.



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Thank you



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