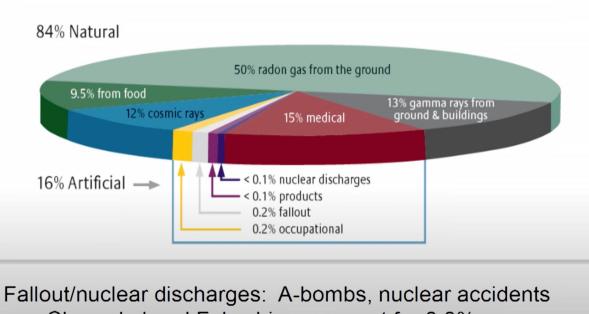
## Radiation and Risk

# What contributes to our radiation exposure?



e.g. Chernobyl and Fukushima account for 0.3%

#### UN Report on Health Effects of Chernobyl

#### Chernobyl - Health effects

- 28 from ARS
- 15 deaths from thyroid cancer in 25 years
- 1% death rate overall predicted for thyroid cancer. 16,000 excess thyroid cancers in total predicted therefore 160 deaths
  No (scientific) evidence of increased thyroid cancer
  - No (scientific) evidence of increased thyroid cancer outside 3 republics
  - No effect on fertility, malformations or infant mortality
  - No conclusion on adverse pregnancy outcomes or still births
  - Heritable effects not seen and very unlikely at these doses
  - No proven increase in any other cancer (including liquidator cohorts)

Source: www.unscear.org/docs/reports/2008/11-80076\_Report\_2008\_Annex\_D.pdf

### UN Report on Health Effects of Fukushima

#### Fukushima Health effects

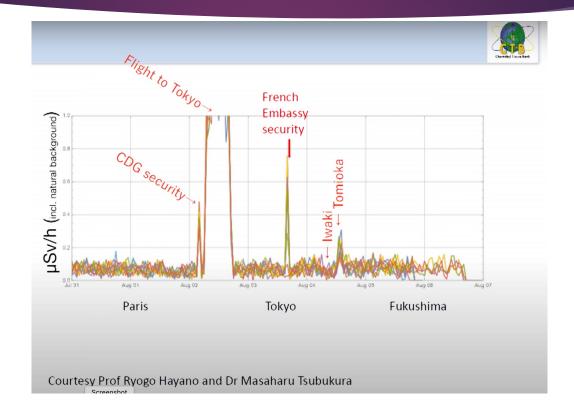




- No radiation related deaths compared with >1500 who died as a result of the evacuation or stress related to it, and approx 20,000 in tsunami
- Unlikely to be any increase in thyroid cancer at the doses received
- Psychological harm due to evacuation and radiophobia
- Huge economic effect on local area and Japan as a whole

Source: http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1710-ReportByTheDG-Web.pc

### Radiation record of a trip to Fukushima



# Risk of death based on energy source per TWhr



