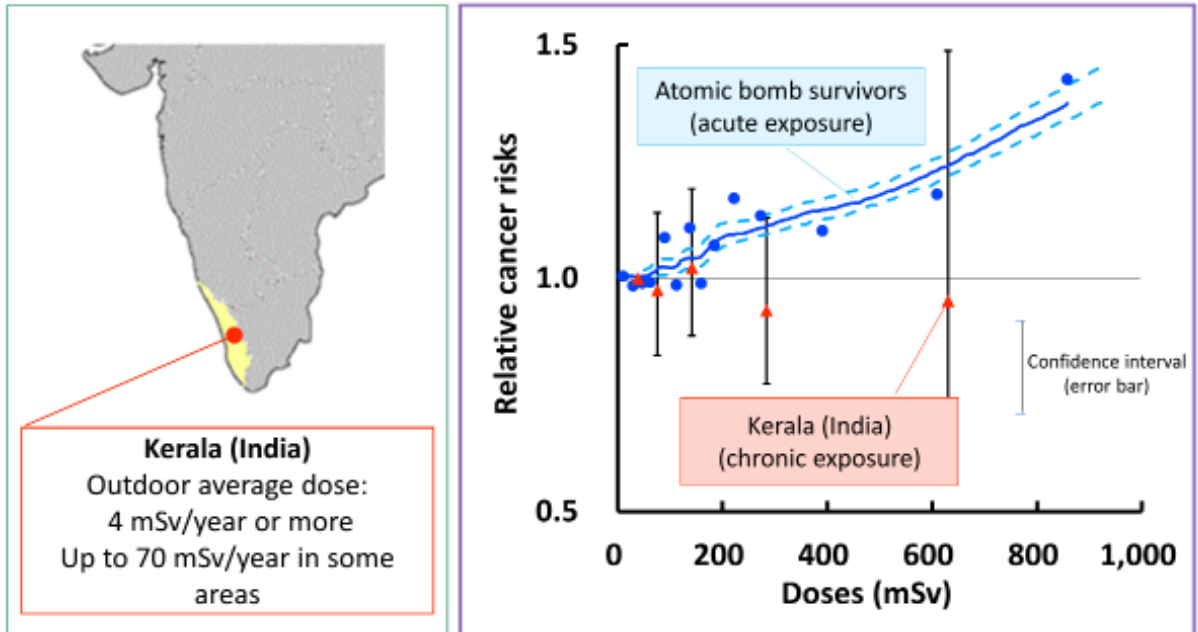


## Effects of Long-Term Low-Dose Exposure

### Carcinogenesis among residents in high natural radiation area in India



mSv: millisieverts

Source: Prepared based on Nair et al., Health Phys 96, 55, 2009; Preston et al., Radiat Res. 168, 1, 2007

It is considered that effects appear in different manners depending on whether it is a low-dose-rate radiation exposure or a high-dose-rate radiation exposure.

The figure on the right compares the data on atomic bomb survivors and risks for residents in high natural radiation areas such as Kerala in India. No increase is observed in relative risks for cancer (values indicating how many times cancer risks increase among exposed people when supposing the risk for non-exposed people as 1) among residents in Kerala even if their accumulated doses reach several hundred mSv. This suggests that risks are smaller in the case of chronic exposure than in the case of acute exposure, although further examination is required as the range of the confidence interval (the error bar on the figure) is very large (p.116 of Vol. 1, "Cancer-promoting Effects of Low-dose Exposures"). (Related to p.99 of Vol. 1, "Relative Risks and Attributable Risks")

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