

**Population density in Hiroshima and Nagasaki before the bombings in 1945: Its measurement and impact on radiation risk estimates in the Life Span Study of atomic bomb survivors**

In the Life Span Study (LSS) of atomic bomb survivors, RERF has investigated the diseases (cancers and others) that survivors experience and the various causes of death in that population.

The possibility exists, however, that urban–rural lifestyle differences present an obstacle to the understanding of associations between exposure dose and disease incidence.

This study thus obtained data on pre-atomic bombing population distributions in Hiroshima and Nagasaki, and investigated the relationship between population density and solid cancers (gastric, lung and other cancers marked by tissue masses) and between population density and mortality.

The study found small differences in mortality risk among urban populations, but these differences did not impact the degree of increased radiation risk for mortality or cancer incidence.

RERF's objective with this brief outline is to succinctly explain our research for the lay public. Much of the technical content of the original paper has been omitted. For further details about the study, please refer to the full paper published by the journal.