States and other nations. Instead, preliminary doses have been calculated on the basis of a detailed review of a limited number of reports and available dose assessment models. In some cases - particularly for the doses resulting from the intake of shorter-lived radionuclides (e.g., Iodine-131) in global fallout - the doses calculated may have considerable error. Future work would improve the precision of these calculations.

The usefulness of the doses estimated in this project is limited to rudimentary evaluations of the average impact on limited health outcomes for the population of the United States. Because of the low precision of the estimates, these doses should not be used to estimate health effects for specific individuals or for subpopulations. The goal of these calculations was to determine feasibility only, and, therefore, the magnitude of the uncertainty of these doses has not always been evaluated. Although the computed county-specific deposition densities and doses (presented in a series of maps in the Technical Report) are uncertain, dose maps, such as shown in the Figure, are useful to illustrate general spatial patterns of fallout exposure for average individuals across the United States.

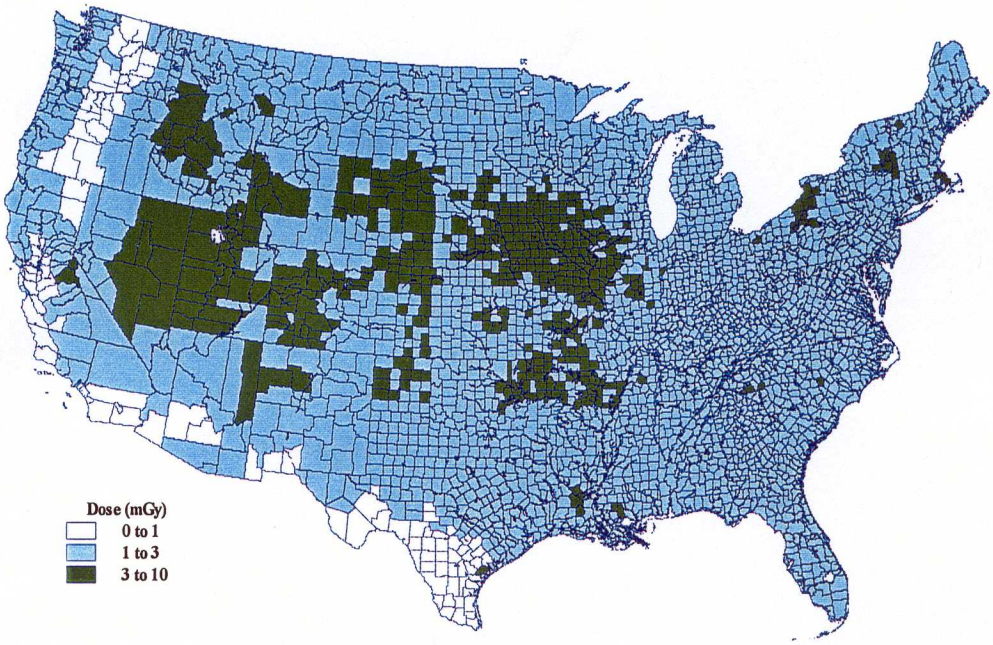

Figure. Preliminary estimates of the total radiation dose (milliGray [mGy]) to the red bone marrow of children born 1 January 1951 from NTS and global fallout for all radionuclides.

As examples of results from this study, a summary of doses averaged over the contiguous United States is presented in the Table at the end of this report. Because the thyroid and red bone marrow are among the most radiosensitive organs and tissues of the body, their doses were selected as examples for presentation (Table). Thyroid cancer, non-cancer thyroid disease, and leukemia, which arises from the red bone marrow, are health effects that could be studied if a more detailed evaluation is conducted.