

LSS Report 11 Mortality and Acute Effects Data Set
September 4, 1998
October 5, 2000 (revised)

These notes describe a special version of the [LSS Report 11 mortality data](#) set that includes additional stratification on the presence or absence of various acute effects. The acute effects used for this stratification are: severe epilation (defined as at least 75% hair loss); bleeding (purpura); oropharyngeal lesions; and flash burns. Data on acute effects were obtained from ABCC/RERF Master File records. For each of the four items responses are classified as symptom present, symptom absent, or not reported. This data set has been used as the basis of a report by Alice Stewart on the possibility of selection effects on risk estimates derived from the Life Span Study cohort. ([Stewart AM, Kneale GW, A-bomb survivors: factors that may lead to a re-assessment of the radiation hazard. *Int J Epid* 29:708-14, 2000.](#) [Stewart AM, A-Bomb data: Detection of Bias in the Life Span Study Cohort. *Environ Health Perspect* 105\(Suppl 6\):1519-21, 1997\).](#))

If these data are used as the basis for analyses in any publication including working papers or technical reports, a statement of acknowledgment must be included in the manuscript. This statement should read:

This report makes use of data obtained from the Radiation Effects Research Foundation (RERF), Hiroshima and Nagasaki, Japan. RERF is a private, non-profit foundation funded by the Japanese Ministry of Health, Labour and Welfare and the U.S. Department of Energy the latter through the National Academy of Sciences. The conclusions in this report are those of the authors and do not necessarily reflect the scientific judgment of RERF or its funding agencies.

Please send a copy of any manuscripts that make use of these data to:

Archives Unit, Library and Archives Section
Information Technology Department
Radiation Effects Research Foundation
5-2 Hijiyama Koen
Minami-ku
Hiroshima Shi 732-0815 JAPAN

The data file is called R11Acute.dat. The data are written in a fixed format in which all fields are separated by blanks so it can easily be read by most data analysis programs or spreadsheets. As described below, several other files are also included in this release.

LSS Report 11 Mortality and Acute Effects Data Set

Data set: R11Acute.dat **Creation date:** March 6, 1995
Records 26,538 **Size** 3,901,086 bytes

Category variables

City 1 Hiroshima, 2 Nagasaki
Sex 1 male; 2 female
Age at exposure 0 / 5 / 10 / ... / 55 / 60+ (13 categories)
Dose category (cutpoints in mGy) 0 / 5 / 20 / 55 / 95 / 195 / 495 / 995 / 1995 / 2995 / 3995 + (10 categories)
Time period < 1956 / 1961 / 1966 / 1971 / 1976 / 1981 > (7 categories)
Epilation 1 absent; 2 present; 3 not reported
Bleeding 1 absent; 2 present; 3 not reported
Oropharyngeal lesions 1 absent; 2 present; 3 not reported
Burns 1 absent; 2 present; 3 not reported

Summary variables

Mean shielded kerma mGy
Mean neutron kerma mGy
Mean gamma
Years since exposure
Age at the time of the bomb
Total person years
People first at risk
Total Deaths
Noncancer Disease deaths including CVD
Noncancer Disease deaths excluding CVD
Cancer deaths
Leukemia deaths
Benign neoplasms
Unknown cause of death

Notes

Attained age can be computed as
 $\text{years-since-exposure} + \text{age ATB}$

Deaths from external causes can be computed as
 $\text{deaths} - \text{diseases (with CVD)} - \text{cancer} - \text{benign} - \text{unknown}$

Number of subjects first at risk is 0 in all cells except those for the first time period

The other files included in this release are:

- R11Acute.scr a script that shows how the data can be read by any of the Epicure programs.
- AcuteMod.scr an Epicure script that computes various summary statistics for difference subgroups based on the nature of their acute effects. Dose response models for cancer deaths are fit for all of the data, for the group of people with multiple symptoms (high dose group), and for the group of people reporting any injuries. Comparison of the results for the groups with (mean weighted DS86 colon dose 0.7) and without (mean weighted DS86 colon dose 0.05) any reported injuries do not show any significant differences for all cancer and a marginally significant difference ($P = 0.053$) for leukemia.
- AcuteMod.log AMFIT log file showing results from running the AcuteMod.scr script.