

SKELETAL PLAN FOR A COMPREHENSIVE EPIDEMIOLOGIC STUDY OF POLLUTION: EFFECTS OF EXPOSURE ON GROWTH AND DEVELOPMENT OF CHILDREN

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I. Basis for choosing this association to study

A. An "effect" which could be associated with atmospheric pollution, radiation, nutrition, occult lead or heavy metal poisoning or infectious or parasitic diseases.

B. An "effect" which is not currently under active study, but which is of general interest in that many populations will want to avoid a negative association.

C. An "effect" with some interesting statistical properties, but also possessing the full range of epidemiological complexity.

D. Practical, or apparently so, on an adequate scale.

E. Likely to be sensitive to existing exposure levels. (? sensitive for radiation exposures.)

F. Symposium participants are likely to be similarly familiar and informed relative to, say, chronic respiratory disease morbidity and mortality, or infant mortality, for which some participants are better informed than others.

G. Such a study is likely to attract support from available funds.

II. Background

Wetzel grid used to describe the growth function, based on height, height-weight ratio, age, and "body type."

Kapalin distribution diagram describes "location" of population, variance, and homogeneity. Fiducial limits were not applied. Kapalin has demonstrated apparent association of height, with nutrition, economic status of family, family size, pollution exposure, stature of parents. Similar analyses of RBC count, and hemoglobin. Reversibility suggested with change of location or with nutritional program.