The previous study was conducted by Dr. Wright in 1963. The results, which were published in the January 1968 issue of the AMA Archives of Environmental Health, were reported by Dr. Wright to be negative, from a strictly radiological standpoint.

SELECTION OF THE SAMPLE

The management of the Owens-Corning Fiberglas plant at Newark, Ohio, furnished the following through IHF:

1. A list of names, ages and badge numbers of the total current male payroll of the plant including the office workers.

2. An estimate of time-integrated exposure to process dust for every employee. Based on these estimates, employees were classified into highest, intermediate and lowest exposure categories. The management had exclusive access to:

(a) The employment histories (many of which were interrupted by World War II and by voluntary resignations and re-employment);

(b) The details of the changing plant locations of employees, and specific occupations throughout their employment history, and

(c) The history of estimated dust levels at different plant locations since the beginning of plant operations some 30 years ago. For these reasons the plant's management was considered to be the best arbiter of this important question.

The total payroll was also subdivided into three current age groups namely — under 30, 30-49 and 50 and over. These two threefold classifications create nine "age x exposure" groups. It was then decided, in consideration of a desirable total sample size in terms of practicability, and of minimum numbers for statistical significance, to attempt to provide at least 30 male employees in the highest "age x exposure" group or "cell". (See Table I)

It was then found that the total number of employees available in the "youngest least-exposed" group (top left-hand corner in three-fold square) was only 21. As this was the only deficient cell in terms of hypothetical availability of employees, and as this was considered to be the least significant cell, the modified sample plan for 261 of the 2,400 odd employees, was proposed. (See Table I.)

The eight remaining "cells" were filled by a selection of employees within each "age x exposure" group, by the use of random numbers. The proposed sample would therefore be classified as a stratified random sample.

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