

the patient. The exhumation program was to concentrate on three types of cases: those that might provide information on the toxicity ratio of mesothorium to radium, those that might clarify the retention of radium at early times after acquisition, and those given plutonium in the 1940s. Also important were radium cases from Waterbury and Ottawa, because such cases would increase the number of subjects known as a consequence of their employment. No recommendations were made about epidemiologic goals, although Stehney presented tables summarizing the current population of measured radium cases and progress that had been made in the follow-up of specific subgroups of this population.

This was the last meeting of the CHR Advisory Committee. Its next scheduled meeting was postponed until the question of an epidemiologic plan was settled. This issue was not settled until early in 1976. No records are available to suggest why further meetings of the CHR Advisory Committee were not held.

Shortly after this CHR Advisory Committee meeting, and before its recommendations were received, a DBER/AEC site review visit was made to the CHR. The site review team criticized the design of the CHR studies of human populations and requested that an *ad hoc* committee of epidemiologists be formed to establish rigorously formulated objectives and biometric methods for the continuation of the program. The CHR was directed to prepare a plan that would meet these objectives, for submission to the *ad hoc* committee.

A plan was put together by Stehney, largely incorporating ideas suggested by Marshall that were directed toward the statistical problems involved in differentiating between squared and linear dose-response functions. The resulting 160-page document covered the origins of the radium program, examined the core populations under study, introduced plans for both a prospective and a retrospective study, discussed the statistical weaknesses of each type of study, reviewed the medical procedures and the data collection and storage systems, and concluded with the current list of measured radium cases. This plan was completed in May 1974 and was submitted to the *ad hoc* committee of epidemiologists in July 1974.

The *ad hoc* committee consisted of Hutchison (a member of the CHR Advisory Committee), Marks (DBER/AEC), S. Jablon, P. Meier, R. Miller, and E. Tomkins. The report of this committee, received in June 1975, found the plan as submitted to be unsatisfactory and requested that "a general protocol of the radium project should be drawn up . . . with broad objectives and a broad outline of the study plan. Specific protocols should be prepared for limited projects within the total study."