

Dr. NOBEL. We will complete a preliminary evaluation within 1 year and the actual study is a 3-year one, involving installation of systems and total evaluation. But within the first year of operation, we will have a very clear idea as to how justified we are in proceeding ahead on a broad basis.

Senator NELSON. Well, what is the main factor in consideration? If you cut the time in half, that is factor enough; is it not?

Dr. NOBEL. We will do considerably better than cutting the time in half. We estimate, for example, at one of the hospitals that we can reduce mobilization time from about 9 to 11½ minutes. Now, this is certainly significant.

However, even though the hospital emergency command system is desirable in terms of its fixed organization and its routinization of response, we have to show decreased mortality rates—increased survival rates. In the ultimate analysis, this is what is important to us. These statistics take a little more time to gather.

Senator NELSON. Well, I guess the doctors would have to decide that. I would assume that if you cut the time by 7 or 8 or 9 minutes in any emergency, you are going to find that sometime you save a life. I guess I could assert that.

Dr. NOBEL. We are convinced of this, but we want to see it in numbers.

Senator NELSON. Thank you very much for your very interesting presentation. We appreciate it.

Dr. NOBEL. Thank you, Mr. Chairman.

Mr. CALLAHAN. Thank you, Dr. Nobel.

Mr. Chairman, the systems we have described so far illustrate some of the ways that modern communications can help the medical profession fight heart disease more effectively.

In New York, at the Memorial Hospital for Cancer and Allied Diseases, a relatively simple communication system permits computer planning of radiation treatment for other hospitals.

Furthering the concept of regional medical programs, Memorial Hospital, serving as one of the regional cancer centers, has already extended the benefits of its unique, highly sensitive, and accurate treatment planning facilities to two other institutions, one located in the Greater New York metropolitan area and the other in San Francisco. The hospital plans to make this program available to other hospitals nationwide.

Communication between the collaborating hospital and Memorial Hospital, which is a clinical unit of Memorial Sloan-Kettering Cancer Center, is via teletypewriter using the telephone network and a Data-Phone data set. Patient medical data will be sent to Memorial Hospital via the teletypewriter from the participating hospital, describing certain data about the patient contour, the treatment parameters such as the size of the field to be irradiated, the number of portals through which the radiation will be given, the angles at which X-rays will be