

NIOSH Interest in the Cost Effectiveness of Occupational Health Programs

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Opening Remarks by Doctor Moore

In 1971, when DHEW's activity in occupational health was given Institute status, Secretary Richardson put several questions to the Department. Among others, he asked "What is the real value of your activities? What is the value of a preventive health program or an occupational health program? How have you evaluated your work? How do you know you are doing any good?"

This question eventually reached us at NIOSH, having been routed through the appropriate channels. By that time, our questions read: "Can you, by tomorrow, give us evidence of the value of an occupational health program? If not, how much time do you need?" Of course, we couldn't do it in a day, so we started by looking at what had been written on the subject. We found a few helpful entries, but in general, the literature was sparse. We were quite heavy in NIOSH on the industrial hygiene aspects of occupational health, and we had a pretty good lead into epidemiology, but we did not then have a focus for in-plant occupational health programs.

Early in 1972 I was told by the staff of one large industrial medical department: "Ray, we have never looked at the benefits side. We assume that we are doing good because we are able to keep our budget and the company continues to employ us. But we don't have any figures of the type you are looking for."

Fortunately for us, when NIOSH was set up, it was given a unit called the Division of Occupational Health Programs. We didn't have anyone to man it, but we put it on the organization chart and we wrote statements for the Federal Register and we got the statements approved. Lo, we were in business.

Then we began the search for personnel to staff the division and to develop our answers to the Secretary's questions. At that time, we were operating under severe personnel hiring restrictions, but we found Dr. Walter Hoover, and with the help of the Intergovernmental Personnel Act, we persuaded Columbia University to release him to us. This was the first time that HEW had used the new law, and it took a while to get people accustomed to the idea. Eventually, we were able to bring Dr. Hoover and Mrs. Nelson to Rockville. With the

help of a secretary, they set out to demonstrate the benefits of occupational health programs.

Over the past year there has been growing emphasis on cost-benefit evaluation of health services. The program of the Medical Care Section of the 1973 annual meeting of APHA carried ten or more papers on the subject, ranging from studies on the cost effectiveness of prenatal centers to the cost experience of a project to care for the victims of stroke.

I think that in the future we are going to have to show more on the benefits side of the equation than we have in the past. On many projects we can count the cost, adding up the dollars, although it becomes a little more difficult when one gets down to the fine points. But on the benefit side, what value does human life have? I don't know quite how to get into that question. At one time in one area, an industrial death was relatively easy to settle. There was a \$10,000 payment and that was that!

Things have changed now. At NIOSH I know of hardly any of our programs that we are more excited about than the one that brings this group together. The expertise is here, and the timing is favorable. The protocol for the study project is such that should you have suggestions for changing it, these may be considered. But from our viewpoint, NIOSH is very much interested in seeing a successful outcome of this effort. It has a green light as far as we are concerned.

Secretary Richardson is no longer with DHEW. We have a new Secretary, Mr. Caspar W. Weinberger. The Health Services and Mental Health Administration disappeared after the most recent reorganization, and many who were in leadership positions a few months ago have gone. But there is something about federal bureaucracy that stays on forever. You may chuckle about that, but this concept of proving that there is a measurable benefit to your occupational health program will not go away. I suspect that in the future we will have to apply it even more than we do now. We must learn how to do it. There is an interest by the Congress in this problem. You are not in this alone. Many people are looking over your shoulder and wishing you well.

In an editorial entitled "Accounting to the Public" the New England Journal of Medicine of October 11, 1973 had a number of interesting things to say about the evaluation of health services. It concluded that "Cost effectiveness is new to the entire health industry, not just to local and state health departments."

I know that we must meet this challenge and I think we can.

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Just over a year ago I came to NIOSH in a somewhat bewildered manner on loan from Columbia. A number of things happened during my period of indoctrination. One of these was an attempt to clarify the role of a division that had been an empty box in the organizational structure. It was agreed that the box should be there, but nobody had put anything into it. That essentially is why I was asked to come in.

The emphasis of NIOSH prior to that time had been very much on the environmental aspects of occupational health, on the prevention of occupational disease, but they now hoped—in the mandate I received—to balance this approach by moving in the direction of stimulating more general programs, taking into consideration the preventive aspects of the health of the worker, as well as his general medical care.

After some soul searching we decided upon certain aims for the new Division. The first is to promote national education and voluntary guidelines for what an occupational health program should be, rather than for what they have been. They aren't very much in a great many places. We want to emphasize the entirety of the occupational health program in the plant, and not just certain elements of the program. We are directing our thrust at small industries in particular because they receive their medical care from vendors who may know very little about the nature of occupations in the plant.

We consider as our second task the development of new and innovative ways of combining community resources with those available in industry to meet the health care needs of workers in a more effective manner.

A third task, arising out of the second, would be to try to interface occupational health care, which has been parked somewhere out on the corner, with the delivery of general health care. All this was a big order for one person, so I was allowed to bring a second person with me from Columbia to help to fill my empty box.

One of the first things that became clear to me as we started selling plants on the idea of the entire occupational health program was that management always asked: "How much will it cost and what will it do for us." My reference to the literature didn't produce too much value. There was the paper by Peter Wolkonsky reporting the results of a questionnaire to

determine certain things from the medical records of different industries. It was concluded that a cost-benefit analysis could not be done very well since data is being collected in so many different ways.

Recently the Department of Labor made an attempt, again by the questionnaire and consensus method, to determine whether it was feasible to set up a cost-benefit study of the plant safety program, which would seem at the outset to be rather easy to evaluate. It was found that the data, derived from over a thousand industries, was incompatible for reaching any conclusions, and the study was not done. Most of the difficulty was in the way the indirect costs were recorded.

There is another possible way to go at this problem. That is to formulate a conceptual model, hopefully evolved by an inter-disciplinary group, and apply it in a practical sense to a good medical department. To do that we had to find a good plant medical department. We came to the Fontana Works of Kaiser Steel and decided that it was suitable.

The second problem was to find someone with enough courage to tackle the job of cost-benefit analysis, recognizing that perhaps the initial results would not really indicate as much as we hoped because of the very great difficulties of doing this sort of a job. The only organization that came forward as willing to attempt this hazardous task was Kaiser Foundation International. We are happy with the combination, and with a company that is willing to cooperate in this effort.

What do we hope to get out of this to help us sell occupational health programs? Well, we may be able to show that many aspects of a good program may be expected to produce certain dollar and non-dollar benefits. This has been debatable in the past. In addition, perhaps we can evolve a management tool for use in an operating medical department that will tell us where we are spending money most effectively, and where we are not spending very effectively, so that emphasis may be shifted to where it can do the most good.

We are intrigued with the conceptual model that is being presented. We realize that the multi-disciplinary group attending this conference will produce many criticisms, and we hope that these criticisms will help in the evolution of a better model. So thank you very much for giving your attention to it.