

WHAT LIES AHEAD IN OCCUPATIONAL HEALTH --
A LOOK AT THE NEXT FIFTY YEARS.

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Keynote Address

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Service.

I am very happy to be here with you today, to pay tribute to the accomplishments of the Public Health Service in fifty years of occupational health activity and to reflect upon what the next fifty years can bring.

It is helpful to have occasions like this during which we measure our progress, as Dr. Hatch has just done so ably for us, and to consider what major tasks lie ahead, as I hope to do now.

It has been well said that thought, or reflection, "steals light out of the past to shed it on the future." In looking at the future, I would like to pass in review, so to speak, the tasks that will confront all who are concerned with occupational health. The progress of the Public Health Service in the next fifty years will be inseparable from the dedication and the success of business, labor, Congress, industrial hygienists, and the many other groups which have made unique contributions to the health of the worker. The objectives of all are inseparably entwined and I would like to take a look at the total program in which the Public Health Service, with many others, will play a part.

From the vantage point of membership on the Appropriations Committee of the House of Representatives, I have observed for many years how Congress has allocated money to various aspects of health activity. From this position, I have seen the total health picture of our nation, as presented to Committee members by experts and in

the give-and-take of the questioning periods. From this experience -- as well as from a long personal interest in workers and their health problems -- I have taken the measure of industrial hygiene programs as compared with other health activities and I have come to a conclusion I suspect you will be able to agree is both accurate and helpful.

We are not moving forward in occupational health at an adequate pace. While some fields of environmental health have taken tremendous strides in the last two decades, occupational health at this moment commands very little public attention, support, or interest; derives small nourishment, indeed, from public funds; and -- I would say -- is stagnating, in comparison with other fields of environmental health. . . especially when measured against the job that could be done.

A recent issue of Environmental Health Letter commented: "We don't see anything in the Division of Occupational Health's budget of a mere \$2,179,000 for extramural research to get excited about. Some excellent research is being conducted by the Division at its Cincinnati facility -- but the sum for extramural support is peanuts, compared to the enormous size of the job which could be tackled." I agree completely.

The future of industrial health could be magnificent. The possibilities are vast. If we resolve to act so that no individual worker will endanger either his life or his good health through

the means by which he makes his livelihood, we will have undertaken a large task. I firmly believe, as I'm sure we all do, that no man or woman should be expected to risk physical debilitation, pain, disease of the skin or of the lungs, or a shortening of life, in exchange for the wage received as an employee. But we need to think more imaginatively and generously than this.

There is growing recognition that a country's greatest resource is its people. President Johnson has asked us to wage a war on poverty so that our people should not be poor. We try to prepare each young person for his place in society by giving him the best possible education, so that our people should not be ignorant. Surely an important corollary of these efforts is that our people also be healthy.

I would like to propose that our sights be raised so that employment anywhere -- in the trades, in commerce, in any and all occupations -- will become synonymous with good health. Our goal should be expanded so that the vigor of our working men and women will become a matter of national pride and an accepted part of the culture and heritage we pass on to coming generations.

We are far from this objective at the present time, and we are not moving at a pace likely to achieve it soon.

The primary reasons for our lack of progress lie in a whole series of complexities, such as jurisdictional barriers between programs which should be closely knit; inadequate staffing of State

occupational health programs; the inability of small plants, in particular, to provide health services to their employees; and a general slowing down of the initial enthusiasm and effort which has lulled the public and many of us, too, into behaving as though there were no more big challenges in occupational health.

These barriers and roadblocks to progress have been discussed by leaders in the field for years, in some instances, but so far no one has had the temerity or the motivation or been able to generate the forces, to attack them, sweep them away, and demand, for occupational health programs, the vitality, the budget, the staffing, and the drive which can bring about really solid accomplishments. It is my belief that the time is here to attack the ancient enemies -- ignorance, apathy, and confusion -- which we have allowed to remain in our way. We need to determine some priorities, plot a course of action, and summon the support of all who should be concerned.

With more than 70 million workers to consider, our planning must be broad and yet realistic, bold and yet down-to-earth.

For example, what do we really know about the current health of these 70 million workers? What do we know about the causes of illness, and the actual incidence of sickness and death, by occupation? We know too little. There is no efficient reporting of occupational morbidity and mortality rates at the present time. Although the importance of gathering data, as a foundation for adequate planning, has been accepted for years, in this field the job is not yet being done.

In this day of rapid machine calculation, of inputs, outputs, and stress on scientific communication, it is ridiculous and unnecessary to lack the essential figures on accidents, illnesses, and deaths as they relate to the victims' occupations.

Don't we need a comprehensive reporting system? I'm sure, if we gave more attention to the need for data and how to get it, and then to publicizing our convictions, an adequate information network could be achieved in the near, rather than the distant, future.

Knowing what our occupational health problems really are would give us a solid start toward parcelling them out and coordinating them through the many agencies that have, and will continue to have, a hand in occupational health.

It is obvious that in any major effort to determine a course of action, and to follow through on it, we will need to coordinate the activities of a variety of programs -- workmen's compensation; old age, survivors', and disability insurance; Federal and State health programs; industry programs; union health programs, and others. We all know that these programs could achieve better results by working together than by pursuing their separate, and sometimes even competing, ways. There is an overlapping of functions, and of expense, in our present lack of cooperation. We are paying more than once -- and sometimes more than twice -- for the same activity, performed by different agencies, and still not getting the quality of service we should. We should be welding the efforts of industry, the universities,

government, unions, doctors, nurses, technicians and all industrial hygienists to bring about the best results for improving individual health.

The start can be made almost any day and -- as you know -- could be as simple as dialing the phone number of a cooperating agency or mailing a report to a newly assembled mailing list. These are the raw materials of coordination upon which large achievements can be built. They are used too little.

For years we have been talking about the difficult problem of providing health care to workers in small plants, where some 80% of American employees work. But there is no concerted action at the present time to bring to these employees the benefits of on-the-job health care and protection. Although some of the large plants have provided diagnostic and preventive services far beyond what is required by the law, there are no in-plant health programs for the majority of workers.

Health protection must be delivered to the worker on his job, or to some point reasonably near his job. It's a tremendous task, but it could be done. It could be done, in some instances, through mobile units. They have provided a happy solution to many other problems where scattered populations, unable to travel to a common center, had to be given vital services. In somewhat more consolidated areas, might not a single center -- located in a central location -- serve employees from a number of plants, large and small? There are

usually a variety of ingenious and economical answers possible when the problem is identified, stated, and given serious, unrelenting attention.

The problem of providing health services to small plants is so big, we cannot stop hunting for solutions even when some that we try don't work. In some instances, we have set up mobile units and geographical centers and they haven't sufficed. There must be ways, then, that we haven't thought of yet and ways that we haven't tried. It is a big challenge for you people here. If the old ideas are inadequate, can you and others like you think of something new?

Certainly you need the assistance and support of many more trained industrial hygienists than are available now. I am sorry to find that this nation is so understaffed, insofar as industrial hygiene is concerned. Many of you here who have worked for government agencies and then gone to work for industry are personally familiar with the situation I am describing.

The Federal government, I know, has trained many industrial hygienists, relied on their services, and then benefitted from their work when they left to become staff members of important industries. The complaint is not that industry has attracted able employees. The pity is that there have not been adequate replacements for those who are gone. Where, for example, are the young people in industrial hygiene?

State and local government units, particularly, are crippled by the lack of available top-notch technical and professional personnel. This applies to all professions -- engineers, physicians, chemists, physicists, toxicologists.

We must figure out ways by which training and education can be stepped up to produce larger numbers of industrial health specialists and we must highlight inducements which will influence some of the best students to choose industrial hygiene for their career.

If the field of occupational health keeps pace with the national movement to equate opportunity with ability, regardless of the race, creed, or color of professional applicants, we will have another source of dedicated, enthusiastic, and able professional people. We must make sure that able members of minority groups are given opportunities in occupational health commensurate with their ability to serve. We can ill afford in the world today to disregard the potential contribution that exists in our so-called minorities. We are cheating ourselves; we're missing a great deal anytime an able person is denied education or professional position because of his race, the color of his skin, or his religion.

I think some outstanding people will be attracted to occupational health simply by the resurgence of dedication and purpose which I am saying should be brought about. There will be need for new and vigorous leaders, as the years go by, and for the very best in technical skill, brain power, and knowledge of scientific and social complexities.

We are all aware that many industries and jobs have so increased in complexity that large amounts of money must be invested in training the individual worker. The more costly it becomes to have a man off the job, the more important it will be, from an economic point of view, to insure that he stays well.

Humanitarian motives aside, it is good business -- for industry and the community -- to prevent illness and accidents, no matter where they occur. Thus the artificial barrier between the health of the man at work and away from work is crumbling. This may be the most important single development of the coming half century.

Workers spend some forty hours a week on the job as compared with more than 120 off. The health effects of the off-duty environment have increased over the decades as the hours of the work-week have diminished. Also, in today's world, off-duty health risks are sometimes greater than on-the-job risks.

I recently noticed an item which stated that the 100,000 workers of E.I. du Pont de Nemours & Co. were 22 times as safe on the job as off, on the basis of 1963 injury rates. Surely the challenge of occupational health is to extend the gains made on the job to the environmental hazards which exist in the community. The tools and the techniques are there, awaiting only their proper application.

Congress and the public have heard a great deal in recent years about the subtle insults to health from a variety of environmental hazards -- polluted air, contaminated water, radiation, food poisoning,

and many others. We have begun to get the point that we are living in an entirely new, and very complex, world, in which chemicals and nuclear power and other forces -- somewhat outside the comprehension of most of us -- may affect our health and the health of future generations.

The industry of the future -- with its emphasis on automation, electronic and chemical operations, and nuclear energy -- will undoubtedly bring about health problems which will have more far-reaching effects than those of the past. While early hazards affected only the workers directly exposed, radiation and chemicals may produce effects on generations yet unborn in the families of exposed workers.

Occupational health research has made, and can continue to make, major contributions to medicine in general and, in turn, can benefit from developments and findings in other areas of medicine. For example, the tests recently devised for diagnosing hypersusceptibility to certain common chemicals in industry have implications far beyond the limits of the workspace. They have important meaning for the entire field of medical genetics, for red blood cell research, for determining drug sensitivity, and so forth. In due time, they could reach into the office of the private practicing physician for general application.

This can be done, however, only if there is more communication and a greater interplay between occupational health and the preventive health practitioners outside the plant, with medical research at large and others with whom research and practice are allied. Let us not make

the mistake of isolating occupational health outside the mainstream of American health protection.

In that connection, let me urge that occupational health broaden its scope and raise its sights to make itself part of the dynamic movement we call environmental health.

Let me emphasize that by living under the big tent of environmental health, occupational health is not sacrificing its own identity in any sense. It is, on the contrary, taking on a larger responsibility, one which brings it more fully into the search and control of health hazards presented in common in today's complex physio-chemical environment.

Occupational health, with its vast experience and know-how, can be a central force in stimulating a unified attack on those hazards.

There is a readiness, I believe, to undertake much more extensive and sophisticated research on the environment than ever before. There is a realization that the laboratory equipment and the techniques for conducting this research will have to be much more refined and expensive and complex than any we have yet known.

Also, we must find out just what part occupation plays in aggravating certain diseases that are common to the adult population. It may well be that the combination of breathing smog, smoking cigarettes, and working in a particular occupational environment, will have a unique and damaging effect on certain workers. One could choose other examples, using different combinations of drugs,

cosmetics, food additives, insecticides, radioactivity, and other pollutants of the environment to which we are all exposed, to different extents, in our daily lives.

Whereas in earlier days, concern over an occupational health hazard was likely to develop only after deaths or serious and obvious illness occurred in sufficient numbers to bring the problem dramatically to public attention, we cannot afford to rely on such an approach today. The new factors, frequently introduced first into the work environment and later into everyone's environment, are too potent, the effects are too subtle, and the consequences too grave and irreversible, to permit gambling on prolonged exposures.

Congress has just recognized this principle in passing the "Clean Air Act," to fight smog and other community air pollution. We are also giving serious and continuous attention to the water supply of the nation and to control of water pollution. Radiological health protection always finds a receptive audience.

Now someone needs to speak up for industrial hygiene. You know that the worker is the one who experiences "first exposure" to many of the ingredients that later become the big commonplace environmental health problems of the total population. We see, in the pesticides area for example, how knowledge gained from study and protection of the workers manufacturing, transporting, and applying these chemical poisons gives valuable assistance in protecting, or reassuring, the public now that pesticides are found in the general environment.

We need to impress upon people who do not know this fact of life that the occupational environment is the best place, often the only place, to study human exposure to certain chemicals, stresses, heat, fatigue, and other health-affecting factors.

Protecting the worker from new health hazards can redound to the benefit and protection of us all. This is the message we need to get before the nation so that we will be permitted and authorized to do the kinds of studies and undertake the kind of activity we know should be done. We would be doing our country a great service by awakening its conscience once again to the urgent needs of the workplace.

Because we have eliminated the worst of the abuses which characterized the early days of unlimited hours, child labor, sweat shops, and the absence of legal protection for workers -- and because America is superior in so many areas of technology and commerce -- there appears to be a general assumption that we have mastered the big problems of occupational health.

Actually our unsolved problems -- as I have tried to point out in this brief presentation -- are many. Some I have sketched here. Others will appear only with time. Many of them will not be solved in the next half century, but they can be kept within control by valiant effort.

Three years ago, John F. Kennedy addressing himself to the serious tasks facing the nation said, "All this will not be finished in the first one hundred days. Nor will it be finished in the first one thousand days, nor in the life of this Administration, nor even perhaps in our lifetime on this planet. But let us begin."

That message is for us, here. We can look back upon a half century, and more, of work well done in industrial hygiene. We have learned a great deal and most of us have a fairly clear idea of what still needs to be done. The present challenge to us, as a nation, is to put to use -- on behalf of workers' health -- all that we now know. This is not being done to the fullest extent possible. We must carry our work forward at an increased pace, commensurate with the gravity and importance of the task.

So, let us begin.