Understanding of words used in common by different disciplines, points of view, levels of knowledge—these and other factors influence the problem of communication in multidisciplinary programs. Illustrations of this problem are offered here and possibilities for handling it are suggested.

PROBLEMS OF COMMUNICATION AND COORDINATION WITHIN HEALTH PROGRAMS

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EXISTENCE of 14 different sections in the American Public Health Association in itself illustrates the complicated nature of the problems of communication within the public health team and the varied sorts of persons who may be involved in the process of communication. Related questions deal with relative importance of different workers in the hierarchy, the respect in which they are held by each other, the ease with which ideas can be passed back and forth and accepted, and the facility with which language and terminology commonly used by one group is understood by another. To review the problems more concretely, certain specific situations are cited as illustrative. These include malaria, particularly the world-wide malaria eradication campaign, the problem of school health, the problem of the care of the premature infant, and the problem of the interchange among the various members of an international advisory team.

In dealing with malaria at the present time we have a technic developed through the collaborative efforts of entomologists, chemists, physicians, and engineers by which it is possible to eradicate the disease without necessarily eradicating the vector. The basis of this approach is that malaria is a self-limited disease and if the patient is not reinfected over a period of three years he will be unable to transmit the disease to anyone else. Since the anopheline mosquitoes are largely domiciliary species, the essential measure is to spray the walls of the household thoroughly and completely with a residual insecticide. During the interval after the mosquito has fed on a person it always lights on the wall to rest thus coming in contact with a lethal insecticide. It is not possible here to go into the complications of how things might be handled in areas where all the mosquitoes may be resistant to the insecticide or where because of the nomadic habits of the people it is impossible to find collections of houses to spray. Under such circumstances, devices for the continuous therapy of persons, using materials such as medicated salt, are being studied. It is obvious, however, that just the problem of spraying is far more complicated than appears at first examination. When the malaria eradication program was first planned, it seemed simply a problem of engineering from the standpoint of measuring and calculating how many houses and homes were to be sprayed, and of the logistics of getting insecticide and sprayers to the houses. Nevertheless, a number of complications ap-

peared once the campaign really got started. For one thing, because the nature of the activity involved large amounts of human effort in terms of methodical spraying, the problem of getting the spraymen to the areas regularly became a matter of some moment. One of the necessary steps was the development of a seminar for motor vehicle repair and the employment of a regular consultant in this field. Certainly, physicians and engineers were not accustomed to working with such a person yet he became a key man in the enterprise.

What was perhaps even more revealing was the relationship to the problem of health education. When the campaign first started some of the general public health people had suggested that health education might play a significant role in facilitating the spraying. This was, however, rejected by those who saw the problem as merely one of systematic execution of a mechanical task, that is spraying. They very promptly found, however, that in some villages it was the custom always to wash the walls twice a year and in other places to paint them at regular intervals. The householder saw no reason why the spraying should interfere with these operations, not realizing that this would effectively neutralize any of the residual insecticide. The result of this experience is even more interesting. The experts in malaria eradication swung from a position where they did not concede any importance to health education to the other extreme of a trusting faith that health education had some magic technics which could solve the problem very quickly. Unfortunately, this has not been true, although with the characteristic interplay of forces much progress has been made since the two groups began to communicate with each other.

The contrasts in the field of school health are less striking, but physicians often have a blind faith that when the teachers teach, learning follows. Teachers, on the other hand, often have an equally blind faith that the physician in his omniscience can produce the right recommendation for any kind of medical or health problem. Perhaps the greatest difficulty with both is that each has at one stage learned to listen to the voice of authority and is often unable to deny this voice or to be receptive to new ideas.

Still another experience may be useful in illustrating the difficulties of communication. At the Charity Hospital in New Orleans there is an extremely large service for premature infants which, despite the decision to admit infants only of 2,200 grams (that is 5 lbs or under, rather than the traditional 5½ lbs), has had a census as high as 155 babies. Obviously, the problem of nursing care became acute and it soon became evident that the service could never be staffed only with graduate nurses. In the effort to study the situation and in order to arrive at reasonable standards for numbers of nurses and nursing aides, and related matters, a group of sociologists was asked to study the situation. Some of their results were exceedingly interesting but none more so than the sharp distinction between what was supposed to be the role of the nursing aide and the part that she actually played. For example, the nursing aide was under strict orders never to use her own judgment or to make a decision regarding the feeding or nourishment of the baby. On the other hand, the physician she was supposed to consult was often a green intern or a very slightly ripened assistant resident who knew, although he could not admit it openly, that the nursing aide was far more experienced in this field than he. The nursing aide had to tell the physician what she thought he should do, while allowing him to maintain his pride that he was really making the decision. Such a situation obviously has its very real dangers. There were good reasons for not trusting a nursing aide to make decisions in the light of her limited background and limited understanding of the physiologic

processes involved. In 90 per cent of the cases, however, a recommendation based purely on empirical experience was obviously more satisfactory than one based solely on book learning. Often, fortunately, relationships and communication were good enough to achieve the kind of open interchange necessary while still maintaining the status of the two widely separated protagonists. This required good sense and forbearance on the part of the physician and an understanding by the nursing aide of the limitations of her own knowledge.

The illustrations which I have offered are problems for which I have no ready solution to offer, but it seems to me that some of the factors at play can be more easily dealt with if they are understood. Possibly one of the greatest difficulties in communication among persons from different disciplines and different backgrounds is sheer lack of understanding of words. In WHO and PAHO we always said that we had a tremendous advantage in the field of international relations because medicine and public health gave us a common language and a common goal which the politician did not have. Nevertheless, within our field there are very substantial word problems. How many physicians, for example, really know the meaning of the concept "nursing arts"? How many engineers understand the meaning of "pathogenesis"? How many physicians understand the meaning of "stress" as used by an engineer? The question of mere understanding of words which the trained person unconsciously assumes is known to the other professional person can be a distinct block.

Beyond this there is always the question of prestige level or social level, which varies in degree from one country to another, but the difference in status between physician and nurse is known to all, even though it may be decried as exaggerated. Similar differences exist between the nurse and the nursing auxiliary. We start out on the premise that in any organized program a certain number of orders must be given by the leaders, but that, in contrast to a military situation, public health programs are not likely to succeed if every member of the team is not aware of the rationale behind the order and willing to accept it as well reasoned rather than something to be followed blindly.

If we start out from the premise that we all have similar goals, it seems to me that the main causes for difficulties in communication might be summarized as due to a lack of common understanding of words and technical concepts, existing differences in prestige, a rather natural inclination for some to wish to assert their power of position by giving orders which should be followed without question, or the inclination of others to maintain a sort of truculent independence to justify their own position even though they recognize they must be followers.

Whatever method may be used to break down these problems of mutual understanding must be based on mutual respect for each other's abilities and limitations. Formal staff meetings are not likely to help much but development of an atmosphere of cordiality and friendship within the unit can accomplish a good deal.

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This paper was presented before a Joint Session of the American School Health Association and the Dental Health, Food and Nutrition, Public Health Education, and School Health Sections of the American Public Health Association at the Eighty-Eighth Annual Meeting in San Francisco, Calif., November 3, 1960.