Human Behavior Factors in Program Planning

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TODAY, more than ever before, we need to understand how people act in matters that concern their health and why they behave as they do.

Many of the current problems of public health, such as the chronic diseases—heart diseases, cancer, diabetes, arthritis, blindness—cannot be identified, defined, and solved without the active participation and help of the public. This is true also of the problems of aging, industrial health, mental health, maternal and child care, nutrition, medical rehabilitation, accident control, and the hygiene of housing (*1*, *2*).

If we wish to enlist the active participation of people in public health programs, we need to develop these programs to take care of their problems as they see them or to satisfy the needs they identify. In making decisions we also need to consider what resources people will use, what actions people are willing to take to solve their problems, and the type of health service organization they are ready to accept.

Several factors concerning human behavior seem to deserve further consideration in planning public health programs to meet today's public health goals. While these factors are discussed separately here, they are so closely interrelated and interdependent that in life situations they cannot be isolated, one from another.

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Uniqueness of the Individual

Each person is a unique individual. Each is born into society with his own peculiar pattern of biologically determined capabilities, abilities, and characteristics that make him from birth different from every other human being. As this individual develops and grows in his own unique way and in his own special world, he learns through experience particular ways of thinking and acting. These serve in applying the resources he has in taking advantage of opportunities to satisfy his needs and wants.

As he grows, the individual acquires a sense of belongingness or personal identification with specific groups within his surroundings—at first, perhaps, with his family and play groups; later they may include his school and work groups, clubs, union, church, PTA, political party, or professional organization. He becomes identified also as a member of a particular ethnic, occupational, and social group.

As he acquires a strong identification with such groups, their norms and values help to form his norms and values; their interests and wants influence his interests and wants. To a

large extent he adopts their purposes and goals as his own. Yet throughout he remains a unique individual, wanting, hoping, striving for and expecting—yes, and fearing—different things than anyone else. How he acts to apply his own pattern of abilities and talents to achieve his ends is also different in some ways from any other member of his special pattern of groups (*3–5*).

This uniqueness of the individual is of primary importance in public health planning. A person's health is one of the most intimate aspects of his personality. The nature of his concerns is a highly personal matter—so personal, in fact, that he may have difficulty in communicating with anyone about it.

The case finding, diagnosis, and treatment of chronic diseases may be seriously hampered because an individual with symptoms may have had unique experiences that make him afraid to acknowledge the symptoms; or his experiences may have led him to distrust the methods of diagnosis and treatment offered. He may have learned to place greater faith in less scientific ways of dealing with his health problems.

If the groups to which he belongs attach shame or weakness to certain health conditions, he may not be able to acknowledge—perhaps even to himself—that he has such a condition. For social barriers are often more effective motivators than physical force.

Differences Among Communities

A second major factor to consider in planning is that the members of each community also differ as a group in many ways from those of any other community. They differ in the nature and seriousness of their problems, in the extent and quality of their resources, and in the various possibilities they have for action in solving their problems.

They are likely to differ, also, in the pattern and quality of their leadership. While in some communities there may be many effective leaders, in others the leadership may reside with a few appointed or elected officials who may exert their control through a wide variety of groups. In some communities, nearly all the major decisions are made by one individual or by persons directly responsible to him.

The methods of communication available to members of different communities also vary so that no single means of communication can be assumed to be effective everywhere. The channels of communication available in a metropolitan center may include newspapers, theaters, radio, television, churches, political organizations, and a wide variety of similar formal media. In addition, many informal channels, such as discussions in informal gatherings or neighborly gossip at the corner drugstore or post office, may serve as channels of communication. On the other hand, people living in a rural community may lack many of the formal means of communication. They may depend more upon the informal methods—in fact, these informal means may in some instances be developed to the extent that they are even more effective than the formal channels of the metropolis. Do you recall the use once made of the old party line? Very little happened in the community without everyone knowing about it.

Communities also differ in the way the citizens prefer to organize to solve their problems. Citizens of an industrial community, for example, are likely to prefer patterns of organization different from those prevailing in an agricultural community. This is especially likely if the resources and qualified personnel differ in the two areas. If a rural area lacks the equipment and personnel needed to diagnose certain health conditions, it may be necessary to transport the patient to some central clinic or hospital. Or, in the absence of adequate medical facilities, individuals in the rural community may be forced to lean more heavily on the limited facilities that are available.

It is not always possible to interest the members of all communities in the same type of actions, even though similar problems may exist. People living in a community which has a very narrow margin of security cannot afford the same approach as those residing in a community that has more economic security. If the people of a community have undergone serious economic hardships in the past, its leaders are likely to be cautious in accepting long-range responsibilities that may threaten their future economic security. For example, the leaders of a community that now lacks a local health unit may honestly feel that they cannot

afford such a unit, even though it would seem to the outsider to be well within their means. Even though it may seem within their means today, they may fear that they will not be able to afford it tomorrow, or at some future date.

The members of different communities vary in the way they adopt new programs. In most areas of our country we moved gradually from crude railroads and steam engines to a modern railroad system and then to air transportation; from horse and buggy and dirt roads, to early models of automobiles; and finally to a modern highway system and streamlined cars. This pattern of developing a transportation system has not been the same for all communities. People in some areas have changed almost directly from ox carts to air transportation (*6*).

Members of certain communities now lacking adequate public health services may prefer to start with some other type of service than that the public health people consider basic. They may consider their present means of dealing with these basic public health problems adequate and consequently, may prefer to maintain the type of organization that is now set up for handling such problems, even though professional workers consider this organization inadequate. Some of the lay leaders may be more concerned about providing solutions to newer problems of public health than they are about providing the traditional basic health services. If this is true, they might move more quickly into the development of programs concerned with problems of the aging population, mental health, accident prevention, or the chronic diseases—in short, their primary concern may be with problems that many existing health departments are just beginning to identify as public health problems.

If this situation exists in some communities now lacking adequate public health services, public health leaders might find it easier to develop effective public health organizations in these communities by starting in the direction community leaders identify as being of concern. As these leaders become better acquainted with public health, they will be better prepared to consider ways of dealing more effectively with the problems public health leaders consider more basic.

Public Concern

A third major factor to consider in planning public health programs is that the people of the community need to recognize a problem and need to feel concerned about it before they are likely to take steps to solve it. Therefore, unless the problems, interests, or wants of the public are adequately identified and the public health program developed in terms of these, the public is not likely to be a willing participant in supporting and carrying out the program.

The matter of determining the public health problems in a community is, of course, basic to determining the kind of organization needed and the types of methods required to solve the problem. But the very process of determining public health problems with which the members of the community are faced from their point of view is beset with difficulty.

We must see that our questions or approaches do not limit the responses to our own ideas about problems or possibilities. This applies no matter what technique is used to identify problems or wants—questionnaires, interviews, projective tests, group discussions, or statistical analyses.

We are not likely to get an adequate and valid answer from the layman, for example, if we ask him to tell us about his public health problems or his public health needs. A man cannot report what he does not know or perceive. Unless he knows much more about public health than you or I did when we first entered this field, he will not be able to give an informative or meaningful answer to such a question. If the layman has any knowledge of public health at all, it is likely to be limited to what he has personally experienced. To a farmer, public health may mean milk inspection; to a parent, public health may mean what the school nurse does.

The fact that we are earnestly seeking to identify public health problems does not necessarily mean that we will be able to see them when they are presented to us. In any situation where professional and lay persons seek to cooperate, the differences in their patterns of thinking and perception are serious barriers to effective communication. At times, our professional patterns of thinking will prevent us from seeing the very thing we are seeking.

Johnson reports an incident which clearly illustrates this (7). A child with a persistent cough had his throat X-rayed for diagnosis. The radiologist reported there was nothing in the X-ray to show why the child was coughing. The cough persisted and the child returned to have another X-ray taken. Now, the shadow of a button was seen in the throat region. The button was removed and the coughing stopped. When the first X-ray was reexamined, the shadow of the button was seen there also but it had not been identified by the radiologist, who had assumed that the child had been X-rayed with his clothes on and that the button was on his shirt. The radiologist had failed to see the significance of the button for the problem at hand—that is, the diagnosis of the cause of the cough—because the other explanation seemed more reasonable. His perception had been in accord with previous experiences and was completely logical.

Close cooperation between the layman and the professional person is essential in identifying public health problems and the desires of the people of the community for action. Since representatives of the two groups are likely to identify different things in the same situation, two different patterns of problems and needs are likely to be developed when both are involved, perhaps at first independently. As these two patterns of problems are defined, both groups must join together for discussion in order to identify those on which there is common agreement and also to explore reasons for disagreement on others.

The layman on the one hand must acquire a better understanding of those problems and needs, identified by the professional person, that are so much concerned with his welfare. Unless the layman understands the need for some of the surveillance operations, such as immunization or milk and water control, he is not likely to give the public health person the support required to carry out programs of this type.

On the other hand, the public health person must recognize and understand those problems and concerns of the layman which may not at first glance appear to be within the scope of the established public health responsibility. If the layman places a high value on a medical reference service, a child accident prevention program, recreation facilities for teen-agers, or prenatal care and well baby clinics, he is going to insist that action on these requirements be taken by someone.

Seeing the Solution

A fourth major factor to consider in program planning is that people are most likely to take a particular action when they see that action as one that will adequately solve their problems or satisfy their concerns.

People who see false teeth as the best solution for bad teeth are not likely to take adequate steps to preserve the teeth they have. Rather, they may look forward to getting rid of their teeth and substituting false teeth for them. Conversely, those who see fluoridation of the water supply as a good way to prevent dental caries in children and are concerned about it, perhaps, because they have children of their own, are most likely to support a community fluoridation program.

One would not expect the community leaders who do not see a need for local health units to seek assistance in developing such units. Even though they may recognize serious public health problems, they will not try to organize local health units unless they believe these units will be able to cope with these problems.

Opportunity for Action

Fifth, an opportunity for action must exist, and this opportunity must be perceived as both existing and possible. People must perceive the action as one they are both physically and psychologically able to take. For example, if the action involves attending a clinic, they must perceive the clinic as one they can get to at a time that does not interfere with their work or other essential activities. They must also see the clinic as one they are entitled to go to and one at which they feel welcome.

A person whose teeth are decaying may perceive the cost of repair as prohibitive even though it is possible to obtain adequate care at a price he can afford within the community. If he believes the cost is prohibitive, he is not likely to act, no matter what the situation actually is. By the same token, community leaders

may object to certain local programs. Even though they may appreciate the need, they may not agree that the proposed program is a reasonable possibility considering the resources they have available to them. If this were their perception of the situation, they might strongly oppose such a program as being unrealistic and seek some more meaningful way of satisfying their needs.

They might ask: "What is the use of talking about such a program when we simply don't have the funds, and we have no means of attracting the necessary personnel at the salaries we can pay? Isn't there some other way we can handle this problem? Would it be a good idea to make improvements in the way we are now handling it rather than trying something new that we won't be able to carry out?"

Any new services or organization developed within a community must also fit in with other programs going on in the community. If a service conflicts with such programs, its chances for success are more limited.

Meltzer found that community leaders must feel that a new program will help them in achieving their own objectives if they are to support it (*8*). Community leaders are not likely to give enthusiastic support to any program perceived as interfering with some of the things they personally wish to do or which they identify as responsibilities of their own organizations.

Thus, any action to be taken must not only be seen as possible but must also be seen as an action that does not conflict in any way with personal or group values of the people concerned. It is futile to urge the orthodox Hindu to boil the holy water of the Ganges to kill germs when his religion tells him not to boil holy water and not to kill anything. Likewise, it is useless to urge the orthodox Jew to serve milk to his children at all meals when this conflicts with his strict code which prohibits serving meat and dairy products at the same meal.

A midwestern farmer who places great value on his endurance and thinks it is sound practice to work off his indigestion after a heavy meal is likely to ridicule the idea of staying in bed with similar symptoms that may be related to a heart condition. If he takes pride in how healthy his children look, he may consider their going for regular physical examinations or X-rays a sign of weakness in the family. It does not tie in with his frequent boast, "I've never been to a doctor in my life!"

A low-income family which identifies the public health clinic as a charitable type of organization and objects to the idea of accepting charity is not likely to patronize that clinic. It will not help much to tell them that the clinic has been designed to serve them and that they are welcome. The way they perceive it is the important thing.

By the same token, a community program must be organized in accordance with the customs and values of the community. For the customs and beliefs prevailing in a community are most effective forces in determining the types of actions the people of that community will take and the types of actions they will reject.

As Dorolle (*9*) has observed, "When we set about improving a people's health, we must put aside our own concepts of good and evil, better and worse, and not encroach upon the people's beliefs and cultural concepts. Everyone has the right to develop his own philosophy and to refuse any change in it which does not come from within himself; furthermore, it is useless to attempt to impose changes in cultural concepts from the outside. If such changes are imposed, they cause disequilibrium and misunderstanding which seriously compromise the work which is being attempted."

Patterns of Behavior

The final point I would urge you to consider in planning public health programs is concerned with the patterns of thought and behavior of people. The action to be carried out must be consistent with the usual patterns of thinking and acting of the people concerned.

Few of us are willing to take the time and possibly suffer the embarrassment of brushing our teeth immediately after the noon meal every day, even though we may believe the dentist who advises us that this is a desirable practice. Likewise a workman with a heart condition is not likely to take a rest period in the morning or afternoon as recommended by the doctor if he feels that doing so may cause him to lose

his job. Nor is such a workman likely to take time out for the free X-ray service offered him if he thinks there is a possibility that positive findings will lead to his discharge from work and complete disruption of his family life.

Foster has pointed out that the failure to treat sick children was one of the most bitter criticisms leveled at the public health centers in South America. "It illustrates a failure of the people served to understand the fundamental difference between preventive medicine . . . and routine treatment of the sick and ailing" (*10*).

The results of preventive medicine are often more difficult to perceive than the results of clinical medicine. From the standpoint of the family, the distinction we make as professionals may not be as real or understandable as we sometimes assume. It is likely that some people in our own country also fail to distinguish between prevention and cure and thereby have difficulty understanding the need for separate types of organizations and services. Further exploration of this possibility may be most fruitful.

In brief, then, the remarkable success the public health team has achieved in solving the problems of the communicable diseases and environmental sanitation has resulted in more adequate control of many of these problems. Today, more of the problems of public health can only be identified, defined, and solved with the active participation and help of the public. Fortunately, the public today is better educated, better informed, and better able to participate in the solution of such problems.

A colleague in the American Psychological Association has drawn an analogy about psychology which may have some meaning to public health. He has called attention to tremendous changes that have occurred in the theory and concepts of psychology and the implications this has for research and program. This challenges us to review our tools and to recognize that many of them which were developed to test the hypotheses of a quarter of a century ago are not adequate to explore modern concepts.

Solving the new problems of public health may also require new tools. In some instances completely new approaches may be required to keep pace with the phenomenal rate of achievement of the period through which we are passing.

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