INTRODUCTION: Understanding the Community

A celebrated malariologist who worked on the Panama Canal project made a remark which lingers in the memory of his public health disciples. "If you wish to control mosquitoes," he said, "you must learn to think like a mosquito."[1] The cogency of this advice is evident. It applies, however, not only to mosquito populations one seeks to damage but also to human populations one hopes to benefit. If you wish to help a community improve its health, you must learn to think like the people of that community. Before asking a group of people to assume new health habits, it is wise to ascertain the existing habits, how these habits are linked to one another, what functions they perform, and what they mean to those who practice them.

When the aim is to bring mosquitoes under control, it may seem sufficient to understand the outlook of the insects and to ignore the outlook of the people they infect, on the assumption that the people will be pleased when their health improves as a result of the program, or, at worst, remain indifferent. This assumption may be valid in some cases, but can lead to unexpected trouble in others. In certain coastal zones of Peru, for example, technically successful DDT campaigns have resulted in public charges of incompetence and failure.

In one Peruvian zone the first year's campaign against malarial mosquitoes had a residual effect of six to nine months, but campaigns in succeeding years produced steadily shrinking effects as insects became more adapted to the mixture. Unprepared for this change, the villagers are now convinced that the spraying teams, originally conscientious, are becoming increasingly careless and that dishonest campaign officials are probably diverting the genuine DDT for some ulterior motive and substituting an inferior product in its place. Although the malaria rate has been reduced, the inhabitants do not associate this change with the spraying. Nor do they realize that the spray was aimed specifically at mosquitoes. To be sure, there are fewer mosquitoes and this is all to the good, but in their eyes mosquitoes have never been a

[1] Dr. Samuel Darling, as reported to the writer by Dr. Donald Augustine.

major insect pest, appearing only intermittently, unlike the perennial and bothersome housefly. According to popular assumption, the principal object of DDT spraying was to exterminate the fly, not the mosquito.

For several years this difference of interpretation did not matter; both mosquitoes and flies were cut down in substantial numbers. Malaria continues to be effectively controlled, but by now the flies have regained their lost ground. What campaign directors see as successful anti-anopheles work is seen by the local population as flagrantly unsuccessful anti-housefly work. Villagers say bitterly that the flies are worse than ever, appearing in great swarms a few weeks after communities have been sprayed.

Repercussions were more serious in another zone where anti-triatoma spraying actually brought Chagas' disease under control but was seen by the citizens as a fly-control fiasco. Aroused householders drew up a resolution, submitted it to the national Congress in Lima, and forced the health officer responsible for the campaign to answer charges of malfeasance. The officer was cleared but the episode did nothing to improve relations between health personnel and the population.

Evidently, then, we must reexamine the prevalent assumption that good results automatically carry conviction; dramatic effects in preventing or curing illness are not always self-validating. Facts do not speak for themselves; they are always cross-examined and given meaning in accordance with the assumptions of the examiner. We realize almost at once that the mosquito's image of the world must diverge sharply from our own. We realize less readily that different groups of humans, despite their constitutional similarities, can differ significantly and systematically in their perception of the same event. A given occurrence—an illness, an item of information, a DDT campaign—is really not the same event for all people. Observers located at different points in social space perceive the world from the perspective of their particular community or class or occupation.

Scope and Purpose of the Book

How does a human community accomplish its business? What keeps it on its course? How does it see and solve its problems? How

does it perceive and receive efforts from the outside or the inside to improve its health? This volume provides case material for finding some of the answers. Each case deals with a concrete health situation or with a health program operating at the community level. All the cases are written by persons who were directly involved in the action or who lived in the community long enough to assess the situation at first hand through direct observation or interview.

Some of the cases appear as successes, others as failures. The case studies, however, have been selected not because they represent excellence of program or praiseworthy accomplishment but because they illuminate various facets of community process. In some instances these features are revealed most clearly when a program succeeds, in other instances when it fails. Some of the authors record the mistakes of others, a few bravely record their own. Virtue lies less in avoiding mistakes than in the capacity to recognize and explain them and thus to profit from experience.

Neither the cases nor the comments in this volume are intended to provide specific directives for action. The book reports what does happen, not what ought to happen. But clarifying by illustration what occurs in the community may help health workers make their own decisions and their own appraisal of results. George Rosen has written: "A knowledge of the community and its people . . . is just as important for successful public health work as is a knowledge of epidemiology or medicine. . . . The first principle in community organization is to start with people as they are and with the community as it is."[1]

A general book about social science and public health might dwell on the social antecedents of health conditions—the effects on health of increased productivity and rising standards of living; of urbanization, detribalization, and poverty; of social mobility and social strain; of new scientific knowledge and better medical techniques; of the growth of hospitals, nursing homes, and clinics. It might, on the other hand, dwell on the social consequences of medical developments such as the increase in human efficiency brought about by the reduction of debilitating illnesses, or the

[1] Rosen, George, "The Community and the Health Officer—A Working Team," *American Journal of Public Health*, vol. 44, January, 1954, pp. 14–16.

burdens of overcrowding and of an aging population. Some of these things inevitably become implicated in the case studies, but the book is not primarily concerned with the general social antecedents of health conditions or the long-range social consequences of medical developments. Its main concern is with the immediate situation where medicine and community meet.

Organization of the Cases

Each case study raises a problem, presents pertinent factual information, and draws attention to some of the larger issues illustrated by the data. Each study is complete in itself, and readers may select and compare specific cases as their tastes and interests direct. At the same time, the studies have been fitted into a larger framework, so that the total organization of the volume will add relevance and breadth to the individual reports. The 16 cases have been grouped into six sections, although some of the cases, because of their manifold implications, could fit equally well under several of the headings.

Reeducating the Community. In the long run the most efficient method of combating illness is to stop it at its source, to prevent its occurrence in the first place. The health sciences are discovering new means to promote sound health and prevent specific disabilities. The great challenge is to find ways of weaving the discoveries of science into the fabric of daily living. This is a task in community education, or more accurately, of reeducation.

It is a task in reeducation because every human community has developed an elaborate set of ideas, attitudes, and modes of behavior in response to the persisting problems of social living. Whether these are imparted to individuals through formal instruction or through the thousand diffuse ways in which cultural conditioning is effected, the adults of all communities are already educated. Whether or not one attends school, to grow up is to become educated. The content of this education varies with the cultural setting; knowledge of the digestive process imparted to a Zulu differs from that taught to a Peruvian peasant or a Canadian townsman.

Only in some communities do people venerate images or detect witches or conduct psychotherapy, but all have ways of coping

with sickness and thinking about sickness. All peoples practice some form of preventive medicine, according to their own concepts of cause and prevention. People thus evaluate the acceptability of newly offered advice according to their own matrix of culturally conditioned understandings. New items of information must somehow be fitted into this matrix if they are to be received at all. The novel element must be reshaped to make it reasonably congruent with the existing framework of understanding, but in the process of assimilating new information, the framework itself is slightly transformed, like the growing organism that incorporates a bit of food. To enhance the likelihood of success, the educator must modify the form of his health message so that it makes sense to the particular audience for which it is intended. To do this well, he must be able to look at the world from the other person's frame of reference. The process of reeducation is thus two-sided, applying to the dispenser as well as the recipient of information. To teach, the health educator must be able to learn.

Reeducating the community was a primary aim in each of the first three cases. One study was written by a public health physician who played an active part in a comprehensive plan (first directed by Dr. Sidney Kark) to improve the health of South African people; heavy emphasis falls on reforming the diet. The author of another case is a social scientist who made a detailed assessment of one phase of a Peruvian health program initiated by Dr. John Hydrick, namely, the effort to convince housewives of the need to boil their drinking water. Another case is the joint product of a physician and a social scientist who conducted an intensive campaign to change popular conceptions about mental illness in a Canadian prairie town.

The three programs involved peoples with different languages and cultural traditions and used different methods to achieve varying degrees of success with different problems. Yet they teach similar lessons. What appears from the outside as irrational belief and behavior becomes intelligible when viewed from within. Perceiving the connections between items of belief and behavior as the people themselves perceive them enables us to make better sense of the seemingly capricious pattern of acceptance and rejection, of successful and unsuccessful educational efforts.

Why did the head of a Zulu family accept the verdict that several of his children were tubercular and should be hospitalized, yet vehemently reverse his stand when informed that his married daughter was the carrier? Why did Canadian citizens seem to tolerate a wider range of deviant behavior than those who were trying to educate them, yet refuse to accept the suggestion that there was a continuum rather than a hard line between personal normality and abnormality? Why did conservative Mrs. D in Los Molinos agree to boil her drinking water, while equally conservative Mrs. F scoffed at the idea of boiling hers? The cases give specific answers but they tell us something more general as well. They show in repeated detail that the culture pattern of a given people is made up of interwoven beliefs and dispositions, and why the pattern changes in some instances, but resists change in others.

Reaction to Crisis. Severe illness is always a psychological crisis for the individual and a social crisis for his family. All cultures anticipate such contingencies by furnishing criteria for weighing the severity of the crisis and specifying the steps to be taken when an event is identified as a crisis. Whether or not to call in a specialist, which type of specialist to summon, how to behave in his presence, how to utilize his advice, all depend on how the illness is classified. The category itself is determined as much by cultural definition as by the intrinsic nature of the ailment. Within any community the methods and assumptions of the specialist tend to be attuned to the beliefs of those who use his services since both parties are subject to the same system of expectation and the same cultural environment. To each, the behavior of the other is "natural."

But what seems natural in one social milieu often appears unnatural in another. A physician trained in one culture may experience confusion when he first faces a patient in another cultural setting; the patient, for his part, is frequently misled when the behavior of the alien physician diverges from his own expectations. Such cross-cultural encounters are potentially rich sources of insight into the social dimensions of sickness and therapy. Dr. Carstairs ably exploits these sources to give us a double view of his medical encounters in two communities of

India In a series of doctor-patient episodes, we see the situation both as he perceived it and as the patient and his family perceived it. The episodes make clear the divergence between our own and the rural Indian's conception of prognosis and healing, and demonstrate how powerfully these disparate expectations influence the process of transmitting health knowledge and medical care across cultural barriers.

Dr. Hsu's description of a severe outbreak of cholera in a Chinese town shows how pervasively the culture patterns of a community determine the people's response to an epidemic. Proceeding from different assumptions as to the ultimate causes of the crisis, the residents of the town and the agents of western medicine worked at cross-purposes, each side finding merit in its own method of protection and each failing to comprehend the logic behind the actions of the other.

The study by Dr. Hanks and his associates records a somewhat different situation. Spurred on by the death of a child they had tried to save, a social science research team alerted district health officials who arranged to have all the children of a threatened Thai community assemble for immunization against diphtheria. Many children appeared; even more did not. The authors investigated the reasons for the partial response. They wanted to know whether the evidence of an impending epidemic, as they saw it, was differently construed by most of the villagers or whether the information simply failed to reach them. What they found out about local culture and communication made it seem equally pertinent to ask why so many children actually appeared for immunization.

Sex Patterns and Population Problems. Although the concept of overpopulation is admittedly a relative one, certain areas such as Puerto Rico are commonly held to be seriously overcrowded. The advances of public health are partly responsible for this condition, and responsible health personnel are cooperating with experts in agriculture and industry to redress the balance between population and the means of support. The controversial issue of birth control rests on conflicting basic values and is thus not subject to scientific adjudication. Science cannot say what is preferable, but it is theoretically capable of saying what is possible, and a trained

investigator can make a detached assessment of a going birth control program.

Dr. Stycos' study explains why Puerto Rico's numerous birth control clinics have made little impact on the high fertility rate. Local conceptions of virility, fidelity, and male authority are seen to be partly responsible.

On the Pacific Island of Yap, the pattern of relationship between the sexes differs markedly from the pattern in Puerto Rico. For years the population has been dwindling and although the elders want couples to have more children, women do what they can to remain childless until they are about thirty years old. Here again demographic problems hinge on culturally conditioned beliefs and practices surrounding sex and reproduction.

Effects of Social Segmentation. A community is more than a collection of individuals. Its members are part of a social system; they perform social roles and are bound to each other directly or indirectly by a network of rights and obligations. This system of interpersonal relationships, however, is seldom homogenous. It is usually divided into several distinguishable segments, each comprising its own subsystem of social roles. The segments are held together—tightly or loosely as the case may be—by certain cooperative or competitive arrangements. Characteristically, the segments of a social system differ in their respective activities, interests, and values. They often have different degrees of power, privilege, and prestige. In some instances the lines of cleavage are conspicuous; in others the magnitude or even the existence of cleavage depends on the purpose and standpoint of the observer.

Taking the standpoint of the Indian villager, Dr. Marriott recognizes three concentric social realms—the intimate realm of family and kinship, the familiar realm of village and caste, and the remote realm of the outside world. The author shows in detail why the western type of doctor, whether Indian or foreign, is perceived as a member of the outside world and is therefore distrusted in common with merchants and administrators. "Western medicine sits outside the door of the village, dependent upon governmental subsidy and foreign alms for its slim existence."

The Alabama town of Talladega is composed of three major social divisions: the elite white "community," the white workers,

and the Negroes. Dr. Kimball's study shows how a self-survey which was intended to determine the health needs of the entire community was hampered by the separate values and organizational methods of each of these three social segments. In the author's words, "An overwhelming sentiment in favor of good health is no assurance that people will rush to support a program that promises health improvement. . . . With the organization and execution of Talladega's survey resting in the hands of its dominant powers, there was little likelihood that anything would be done to upset the existing system or threaten established interests."

The social segments which Dr. Naegele describes in his report on a mental health program in a Boston suburb are not divided by cultural and economic chasms as deep as those in Talladega. In this case the segments are three of Wellesley's social institutions: the school, the church, and the new Human Relations Service. All three are professionally concerned with individual character and social adjustment and therefore overlap in their aims and interests. But the organizational form and guiding principles of each institution differ significantly. These differences became manifest in joint meetings of the clergy and the staff of the Human Relations Service, as well as in the development of cooperative arrangements between the latter agency and the public schools.

Vehicles of Health Administration. Over the years, a number of organizational devices for bringing better health to the community have been evolved. These devices include, among others, the public health team, the community council, and the health cooperative. Three case studies deal directly with each of these organizational mechanisms.

The rationale for the team approach rests on the diversity of functions to be performed and the consequent need for combining the skills of several types of specialists. But in addition to this official and external task, every team faces the internal and unofficial task of sustaining itself as a going concern. A team is a small-scale social system and thus must maintain good communication between its members. The Chilean case by Dr. Simmons records the consequences of a decision to remove the nurses from a well-baby clinic in order to have them devote more time to

health education in the home. This move led to a serious impairment of communication between doctor and patient in the clinic, throwing into relief the critical nature of the nurse's informal contribution to the functioning of the public health team.

Organizational devices that facilitate health action in one social setting may be obstructive in another, as shown by Dr. Oberg and Mr. Rios in their Brazilian case study. Apparently inspired by experiences in the United States, technical assistance experts set up a community council to enlist citizen participation in a village improvement project combining health, education, and agriculture. But in the context of local political realities, the community council proved to be more of a liability than an asset, and actually contributed to the premature termination of the demonstration project.

Professor Saunders and Dr. Samora present a comparable case of program failure caused in large part by an inappropriate organizational vehicle—in this instance, a cooperative health organization designed to provide better medical care for 7,500 Spanish-Americans in rural Colorado. Like the community council, the cooperative association proved to be a device that can operate successfully only where certain assumptions, values, and goals prevail. In attempts to profit from previous failure, new projects have recently been undertaken in Brazil and Colorado without a community council in the one instance or a cooperative organization in the other. Dr. Simmons' study warns against discarding effective organizational features; the Brazil and Colorado cases warn against clinging to organizational devices that prove ineffective.

Combining Service and Research. Public health workers continually seek better ways to apply proven medical techniques and disseminate known health information. But they are also eager to increase the store of scientific knowledge and develop new techniques for promoting health. Much research into the determinants of health and illness can be conducted in laboratories, but work with human populations is also necessary. Thus, to learn more about human growth and development it may be advantageous to use selected groups of children as subjects for nutritional experiments or psychological testing.

The Mexican case study by Dr. Lewis and the Guatemalan study by Dr. Adams are based on research projects involving school children. In the attempt to make such research acceptable to the public, both projects offered the community incidental services. The two cases raise the question as to whether the cause of research is enhanced or hindered by extending tangible services. In the Guatemalan case it was possible to dispel misunderstandings about blood sampling and the purpose of nutritional supplements. But community services, such as social nights and a community chicken coop, made no contribution toward winning good will for the research program; the medical clinic was poorly geared to the expectations of the villagers and proved a source of trouble. Once these extra services were withdrawn the nutrition experiment was able to proceed with less difficulty.

Residents of the large Mexican village studied by Dr. Lewis made it clear when he arrived that they needed a physician in their village. "Many people have come here to study us," they complained, "but not one of them has helped us." To meet their request and thus gain their cooperation for ethnological and psychological research, Dr. Lewis helped to organize a medical clinic. But this facility became entangled in a web of politics and was discredited indirectly by an attack on a more vulnerable part of the overall program, the psychological testing project.

Under some circumstances it can disturb community relations to undertake research as an adjunct to a program of service. This is generally recognized. It should also be realized that offering service as an adjunct to a research program can be equally inappropriate under some circumstances. Combining service and research is not always easy. This is attested in a number of the studies that follow. But the series of case studies taken as a whole also indicate that a combination of social action and social research can be mutually beneficial.