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*Traditional public health and its organization are being subjected increasingly to critical scrutiny. What services are needed by a community and how are they to be provided? Some provocative facts are provided by this study of a Colorado county.*

# PUBLIC HEALTH NEEDS AND PRACTICES IN A GREAT PLAINS COUNTY

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THE RESEARCH reported here is neither by a local health department nor in a local health department. Rather, it is research about local health departments —in areas where few exist. The focus of our research is on improving the kinds of information and procedures health officers use in making decisions as to priorities in local health services and ways of providing them. Gradually we are building a body of information which promises to strengthen the health officer's armamentarium for the practice of modern public health. Here I offer a few of the major findings from our first exploratory study and consider some of their implications. But, first, a quick flashback to review the purpose and setting of this study.

## Program Purpose

For a number of years the Public Health Service, along with others concerned with public health administration, has been interested in appraising the effectiveness of current public health practices and improving them where possible. The Great Plains was selected for the first studies because the traditional pattern of local public health organization has not flourished there.

Through these studies in sparsely settled areas of the country with few local health departments we are trying to find out: (1) What are the major health problems, "health" being defined in a very broad sense?, (2) how are they now being handled?, and (3) how might

they be handled more effectively? At the same time, we are trying to test and improve the methods available for gathering the necessary data to answer these questions in any part of the country.

We recognized that these broad and diffuse objectives could not be achieved with our available resources. We had to be selective. Two basic choices seemed to be open to us. Should we try to achieve breadth or depth with our initial study? This choice was perhaps analogous to the decision one has to make when using a microscope, whether to first use a high- or low-power magnification. The difference in community research, however, is that the cost of each field that you view runs into the tens of thousands of dollars. We decided to use our resources at first for a low-power view with greater breadth so that we might become generally oriented to the broad range of problems that have been outlined, holding in reserve high-power magnification for use where it seems most worth while.

## Selection of County

We chose for this exploratory study an eastern Colorado high plains county, judged by available census data to be a reasonably typical Great Plains county. The county selected is 60 miles long from east to west, 36 miles wide, and is sparsely populated—6,700 people living in an area of 2,200 square miles. In comparison with the country as a whole the population of the county is top-heavy in the over 65-year group with a relatively low number of infants under one year and relatively few persons between the ages of 15 and 35. The weather is violent and variable, but usually dry, sunny, and windy. The terrain is almost flat. As one drives down the only through highway running from east to west, the grain elevator of the next town is visible. Denver, the nearest city of any size, is 180 miles to the west.

## The Exploratory Study

### *Research Goals*

For the exploratory phase of our research, the basic effort was to get an over-all view of the health needs of this county—as seen both by professional health workers and by the people themselves. We have included but have not limited ourselves to the kinds of data normally obtained by professional health workers. In addition—through use of the skills of social science—we have attempted to get some picture of the way the people in the county look on their own health problems, the importance they attach to them, and the ways they would go about solving them.

### *Major Findings*

In presenting the findings I shall make no attempt to specify the level of confidence or methodologic limitations of the tools used. These will be discussed in specific papers, such as the one by Dr. Sanders.* In order to facilitate discussion of the implications of these findings for public health practice, let us assume for the moment that our findings in this particular county are typical of the Plains—an assumption that we plan to test. From the data obtained in this exploratory study it is interesting to speculate on the appropriateness of many of the usual activities, or ways of operating, of single or multicounty health units which we have worked hard and unsuccessfully to "sell" to the people in this part of the country.

First are the kinds of illnesses that appear to be the major problems. We commonly use either of two criteria as a basis for judgment as to the major illness problems in a community: (1) the illnesses causing the greatest amount of death or disability in the community in question, or (2) the relative excess of

* See page 1596, this issue.

deaths or disability in the community in question compared with other communities. Using both criteria for judgment that I have just mentioned and recognizing that our morbidity survey has the basic limitations of other morbidity surveys, it appears that the major disease problems in this kind of county include:

1. Heart disease
2. Asthma, hay fever, and other allergies
3. Genitourinary tract problems
4. Arthritis
5. Back trouble and many other problems of the muscles, bones, and joints which interfere with motor function.

These are problems that are especially prevalent in the middle and older age group. In addition, they are problems which would be expected to interfere seriously with the livelihood of farmers or others who earn their living by active physical work. At the present time no organizations are devoting major efforts to finding ways of providing locally the broad range of services that are needed to deal with these problems. Nor are they experimenting with methods for making available the services of physical therapists, occupational therapists, and the other skills that are important in the care of crippled adults as well as crippled children.

What do people in rural areas do when such services are not readily available? Our evidence is incomplete on this point, but the data indicate that at least one frequent solution is to take the problem to the chiropractor. Although the average number of chiropractic services per person per year was lower than for physicians' services, these services were concentrated in the older ages, particularly men. The volume of services was actually greater for chiropractor than for physician's service for men in the 45-54 year age group, a group that might reasonably find arthritis and other conditions that interfere with gross motor ability a serious handicap in doing farm work.

Lest you think that making available services for the care of chronic illness in the county could be achieved by the methods that have been used in many areas of the country, consider some of the impressions of the social scientists on our team.

They found that a high social value was attached to maintaining one's independence and not accepting help. This was especially pronounced where help was not paid for, either in money or reciprocal help. We were not able to identify a single subgroup in this Great Plains community that did not share this dominant value.

Stop and think how many of the services which local health departments in the southeast and in large cities provide —well baby clinics, for instance—that are acceptable to the recipients even though they seem to provide something for nothing. Such services are utilized primarily by subgroups in the population who have historically been heavily dependent on the whims or altruism of the landowner or boss for their necessities and luxuries of life. It is our impression that this traditional approach to the provision of health services would not be acceptable to the people of the county studied.

How many health departments of the Plains area are attempting to act less as providers of service than as agents on behalf of their community to make services available for the care of the chronically ill? For such services, some public sharing of the financial risk would certainly be necessary; however, could it not be arranged for the user of service to pay his share also?

It is the common pattern for local health departments to devote much of their effort to immunization programs and to efforts to get women under medical care early in pregnancy. In this county without a health department we felt that these were two objective and quantifiable indications of the extent to

which individuals have taken preventive health action on their own behalf. Perhaps you will be as surprised as we were. Preventive measures directed to the health protection of children and prospective mothers have been obtained to a high degree in this county. Over four-fifths of the expectant mothers sought prenatal services during the first three months of pregnancy and only in one instance out of 153 was there complete absence of prenatal care.

The proportion of infants and children of preschool age who had been immunized against smallpox, poliomyelitis, diphtheria, whooping cough, and tetanus compares very favorably, on the whole, with other parts of the country. In the age group one to four, the preschoolers, 64 per cent, are immunized against smallpox, 87 per cent against polio, 85 per cent against diptheria, pertussis, and tetanus.

The frequency of preventive actions which would benefit mothers and children and which could be carried out by physicians and patients in the absence of organized community health services was reaffirmed by the finding that visits to doctors for preventive services by children and women in the child-bearing age was much higher than for any other group. We are confident these findings compare favorably with the rates that obtain in most areas in other parts of the country having local health departments. However, it does not come as a surprise to find that the frequency of medical visits for preventive services tapers off almost to nothing as one gets into the adult and older age groups.

Health insurance is a relatively expensive item for people living in this county. Yet, about one-half the people carry insurance. This is approximately the same as in other parts of the country. The thing that is surprising is the fact that almost all of it is carried as individual rather than group policies. This is an expensive form of insurance. The companies writing the individual policies which the people in our sample in this county carry report that they pay back, on the average, 50 cents in benefits for each dollar of premium collected. Many nonprofit plans on a group basis, on the other hand, frequently pay back 90 cents or better for each dollar of premiums. Could our study county support a widespread program of group health insurance? Our social scientists were impressed with the many groups and clubs which are formed in this part of the country for every conceivable purpose. Is it not reasonable for health agencies here to use their administrative and health education skills in helping communities bridge the gap between insurance carriers and the many community organizations to which the people already belong? When we met with some of the community leaders in this county, they certainly seemed to see this as an understandable and tangible problem.

The large number of ready-made social groups also would be an important factor in deciding how to carry out the many nursing and home sanitation activities that were clearly shown to be needed in the county. Cannot we better utilize the natural desires of people for group activity and the assets of such ready-made and effective channels of communication as the Home Demonstration Clubs?

Another surprise to us was the large number of different physicians and dentists who had served the people of this county. Remember, this is a county in which three physicians and one dentist are in active practice and where people live 130 to 180 miles from the nearest city of any size. During the 12-month period preceding the survey, 1,100 families were served by 225 different physicians and 99 different dentists. Obviously, people travel far and wide in obtaining health services. I shall leave it to the nurses to tell me the problems

this situation poses for an effective public health nursing program.

Clearly this is not an area of stable local communities with "old-timers" settled on the land, providing their necessities from the land. Rather, there is a dynamic movement of population in and out of the county, high speculation and risk in farming, great interaction between the major city some 180 miles away for many of the necessities of life, including many of their health services.

Obviously, in so short a time I cannot even mention all of the facets of this single-county picture. For example, there is the whole field of environmental health which I have not directly touched upon in this report.

A different, but equally important area in which we have learned from the study relates to our experience in multidisciplinary research. This kind of research has both satisfactions and frustrations, as one might expect. We have a better sense of its assets and liabilities today than we had two years ago, but it would take another paper to discuss this.

## Next Steps

Where do we expect to go from here, now that we are better oriented to this field through our "low-powered 'scope'?" Our leads for further research are in three main directions:

First, to what extent are the findings in this particular county likely to be representative of the Great Plains in general?

Second, assuming that the community undertakes new or revised health programs, to what extent are currently available evaluation methods adequate to measure the effectiveness of such programs? Will we need to develop new evaluation methods?

Third, how can we develop better methods for obtaining data regarding the health needs in any community? In our work so far we have not been satisfied with the methods that are currently available, but we now have some ideas as to how they might be improved.

## Summary and Implications

If the study county is typical of the Great Plains region, one of the major areas for which organized community action is needed is the provision of facilities and services to deal with long-term illnesses. Conditions such as arthritis, asthma, mental illness, and multiple disabilities of old age call for a combination of medical and nonmedical skills and for well planned facilities. They also call for a means of insuring the services needed at a reasonable cost to the individual, but in such a way that one does not feel that he is accepting "charity."

These problems may involve some major changes in the way we organize to carry on public health work and in the role of public health people in the community. They may require health workers with new combinations of skills, new ways of financing health services, new kinds of organizational relationships. First of all, however, they mean giving up our dedication to established notions of exactly how health services should be delivered.

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