The Ailments of Health Departments

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AT the beginning of his address of last year Dr. Karl F. Meyer expressed his longing for a new definition of health. He was prophetic, for such a definition has now been given to us by the World Health Organization in what Dr. Chisholm, the Canadian psychiatrist, has called the most clearly defined word in the English language: "Health is the condition of physical, mental, and social well-being and not the mere absence of disease or infirmity."

We are met here to consider the health problems common to the western area of our country, but I shall have to take a backward step and consider not health at all, but ask your attention to two chronic ailments that still afflict health departments themselves no matter how progressive they may be. I speak of the chronic lack of funds and of the still worse lack of trained personnel.

It is my opinion that in the appeal for funds from legislatures and city governments, we have nowhere stressed sufficiently the fact that preventive medicine is economically sound. I speak from the standpoint of our two legislative failures in Colorado in 1947 in a session of the legislature conspicuously in favor of health measures. These two failures were to set up preventive measures against brucellosis in our dairy herds, and to provide hospital beds for our excess of tuberculous patients.

It is certainly not difficult to show that the elimination of Bang's disease from dairy herds would increase the per capita wealth of any dairy state. You all remember the studies made in Michigan by Dr. Huddleson last year and reported in an editorial of the *Journal of the American Medical Association,* July 5, 1947, which stated that inasmuch as an infected cow produced 2,065 less lbs. of milk per lactation period than the non-infected cow, the State of Michigan lost 222,904,000 pounds of market milk per year from the prevalence of this disease. The loss was enough to supply about half a million persons a year with milk; the loss in butter was enough to supply about 600,000 persons. As if this were not a sufficient deficit of real wealth, the loss in calves represented a loss of 1,299,200 lbs. of veal or of 6,494,000 lbs. of beef, or of a proportionate annual loss in dairy products if the calves were raised as milk-producing animals.

Try to imagine these losses of real wealth reported for one dairy state, if computed on a national level, with the number of dairy cows and the percentage of infection used as the basic data. The data on losses is so impressive that it has not been too difficult a task to convince the dairy industry that preventive measures pay in terms of increased dividends.

I wish to have the health forces make more and more use of such data, to convince the business world that we are not just "do-gooders" used as a term of opprobrium, but that preventive

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medicine is interested in increasing the per capita wealth of the community, as well as increasing the well-being of all the people.

Why did our bill, aimed at quarantining infected dairy cows only, fail even with the backing of the dairy industry? The answer is that the bill was killed in the livestock committee; however, defeat is often the first step toward improvement, and we are now convinced that the livestock industry is ready to assume leadership in this problem.

Here is a true western problem: the whole territory just east of the Rockies —Texas, New Mexico, Colorado, and Wyoming—is traditionally a country where "cattle is king," representing an industry of great national importance.

While the dairy industry in Colorado is worth about $40,000,000, the cattle industry is worth $113,000,000. No wonder that with all the glamour of their historical traditions and with their present real national importance, they are a controlling factor in the West in measures that affect their industry. Under these conditions, why did the saving of calves lost by a reasonably preventable disease seem of less significance to the cattle industry than to the dairy industry? I suspect that in Colorado, at least, the reason is that a greater difficulty and a more immediate concern to them was the shortage of grazing land. Shrinking of grazing land has a long, long history in the West.

At present, the Governor of Colorado has appointed a special committee with representatives of the livestock industry, of the dairy groups, of veterinarians, of the public health forces, and of the public to make a special study of the best possible control measures for this disease, with the next legislature in mind.

Instead of appointing the individual members to this committee, Governor Knous asked the different groups to designate their own representatives. This state-wide committee has drawn up a bill of which I quote the section on the "Control and Eradication Program": "In an effort to control and eradicate Brucellosis in the State of Colorado, the Commissioner (Livestock Commissioner) is hereby directed to inaugurate and continue a program for such control and eradication throughout the State, by the vaccination of all heifer calves and the testing of all dairy cattle as hereinafter provided." The committee also authorized the appointment of a small committee to carry on an intensive educational program up to the time of the next legislative session.

I bring this matter before you not to stress the provisions of our particular bill, but—since no state can solve this problem alone—to suggest that it would be good policy for our western states to attack this problem at the same time.

What is our status with respect to tuberculosis in the Western Branch? I lack the data from Hawaii, the Philippines, and from British Columbia, but the records from Alaska are perhaps our very worst. Of the eleven western states, the records of 1945 showed three—Nevada, Arizona, and New Mexico—in the group of the highest death rates (43.6 to 123.1 per hundred thousand), and three—California, Montana, and Colorado—in the next worst group (37.3 to 43.5).

Why should Colorado, surrounded by Utah, Wyoming, Nebraska, and Kansas —all with the lowest rates—have such a record? Analyzing the state records, it is not the state as a whole that has such a poor rating but a zone east of the mountains; moreover, Denver, Colorado Springs, and Trinidad account for much of it. It seems to me that the official agencies should now work with precision to seek out and correct these spots of special concentration of this disease.

The National Planning Association

of Washington, D. C., has been making studies of the economic losses from several diseases—including tuberculosis —which have been loaned to me by John Miller, the Assistant Director of the Association. With his permission, I am using their figures.

The studies were made for the year 1943, since that was the latest date for which they could secure all the data they needed. Nineteen hundred forty-three was a war year and so not wholly typical, but their figures are very moderate and it is their trends we wish to emphasize. They estimated that tuberculosis cost the United States for that year about $174,000,000. This included the care of the ill in sanatoria and at home, case finding, education, rehabilitation, aid to families when the wage earner had tuberculosis, research, and pensions to tuberculous veterans.

They then considered the loss in personal income to families and the losses in goods and services to the nation from this disease. For the 41,631 wage earners who died in 1943, and from those who were ill with the disease that year, they estimate a production loss of $348,000,000 worth of goods and services.

Then, turning to the cost of reducing this disease to a very low level with the known methods of case finding, cost of care, of follow-up of contacts, rehabilitation, assistance to families, education, and research—they estimated an annual cost in the peak years of $320,000,000. This figure of $320,000,000 did not include the cost of new hospitals to provide the necessary beds for tuberculous patients, but they estimated that about $70,000,000 of the new program for bed construction and equipment should be ultimately assigned to the eradication of tuberculosis.

This was on the basis of a ten year program, with costs lessening as losses gradually diminished. Think of it! For a cost lower, or—if hospital construction is included—only slightly higher, than the present losses, our annual expenditure for this disease might be reduced from $174,000,000 to a maintenance cost of around $36,864,000. It seems to me imperative that we find out the zones of high incidence of this disease and start a ten year campaign to correct present conditions.

Here have been given two examples of data on the economic losses of preventable disease which we might use with increasing skill and with increasing effect on the first of our two major problems: how to get enough money to carry on preventive measures. Dr. Meyer raised the question: "How are we to devise an education for the legislator?" A part of the answer is the skilled use of data on the economic losses of preventable disease.

Now may we turn to our second great infirmity, the lack of trained personnel. This is such a serious ailment that we may expect but limited suggestions.

The Social Security Administration sent out a map of the states in preparation for the recent National Health Assembly in which all the county health units were marked in black, and their absence marked in white and gray. On this map there are two rows of western states of four states each that make essentially a great white way. They are improving their status in regard to health units, but they still have far to go. I refer to Montana, Wyoming, Colorado, and New Mexico as the Rocky Mountain states; and Idaho, Nevada, Utah, and Arizona as an Intermountain Zone.

Now each of these two great western zones has just one medical school. The members from the Pacific Coast may just count their medical schools and then not listen to our troubles. We are beginning to overlook our county lines now to set up District Health units. Why could not we overlook a *state* line or two? We have a really progressive medical school in Denver; it is now a true medical

center. The medical services of the Denver General Hospital, drawing patients for the entire city, have been put under the direction of the medical faculty, so that the school now draws its patients from all of the counties and from the city, as well. Therefore, the school now has ample clinical material. To increase its student body, it needs additional laboratory facilities and increased state appropriations for education and research. Tuition fees nowhere pay for medical education. I asked the Governor of Wyoming what he thought of the idea of having a real part in our Medical Center, and he was greatly interested. There are this year in Wyoming, 50 pre-medical students ready for entering a medical school, and with our system of state universities, it is almost impossible to place them.

Here is probably a pretty stiff proposition to put up to state legislatures, but why not put it to the people first? Our school could be the Medical Center for the Rocky Mountain states. I do not know the local problem here in Utah, but why could not your great school here in Salt Lake City become the great Medical Center for the Intermountain Zone? At any rate, will the delegates from New Mexico, Wyoming, and Montana talk about a Rocky Mountain Medical Center, an institute of medicine, of research, of psychiatry, of dentistry, and of public health as our common possession? Of course, an increased enrollment of medical students is only one aspect of our deficiencies. We need, also, more nurses, more sanitarians, and more sanitary engineers, for personnel is the major problem of health departments.

The pioneers who settled our western states had a tradition of solving their own problems, so why not maintain this tradition with this new and pressing problem of medical education?