

Caring for the Public Health

IT IS A DISQUIETING FACT THAT ALMOST ONE-THIRD OF THE MEN EXAMINED FOR WAR SERVICE WERE REJECTED FOR PHYSICAL DEFECTS—THE GOVERNMENT'S CAMPAIGN TO IMPROVE OUR NATIONAL STANDARDS OF HEALTH

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NO subject can be more important to the people of any nation, individually and collectively, than the maintenance of health. Our own government is making an organized effort to improve the standards of health in the United States. A Federal bureau, the Public Health Service, is charged with this important duty, but the success of its work depends largely upon the active cooperation of Federal, State, and local health authorities and voluntary organizations. Practical experience has proved that the proper coordination of public health activities can best be obtained under the Federal aid extension principle.

After the war emergency passed, the Public Health Service formulated a program to meet pressing after-the-war needs. That these needs are urgent is indicated by the fact that in the military draft almost one-third of all registrants were rejected by examining boards on account of physical defects and diseases. In large measure these defects and diseases could have been prevented had proper attention been given to them, especially in childhood.

This unsatisfactory condition of the public health, persisting in spite of the energetic work of many health departments and voluntary agencies, indicates clearly that health work has not received the attention that it merits from governmental authorities. While preventable disease rates have been lowered in many cases, and campaigns against isolated diseases and insanitary conditions have met with success, there has hitherto been no national campaign dealing with public health in all its phases.

Our present program is a comprehensive one. It includes departments of industrial hygiene, rural hygiene, railway sanitation,

and municipal sanitation. It will deal with water-supplies, milk-supplies, and sewage-disposal. It will campaign against tuberculosis, malaria, venereal diseases, and the diseases of infancy and childhood. It will promote health education. It will undertake the collection of morbidity reports, and the organization and training of a reserve force for duty in emergencies.

While the appropriations that Congress has placed at the disposal of the Health Service are not large, valuable results are being obtained. We must of necessity concentrate on the various problems in the order of their importance to the public health. At present our studies are being devoted principally to the subjects of child hygiene, the prevention and control of malaria, tuberculosis, influenza, pneumonia, pellagra, and occupational diseases, the pollution of streams, public health administration, and neuropsychiatry.

SOME DISQUIETING STATISTICS

Consider for a moment some of the problems that confront us in one department of hygiene—that dealing with children.

How many know that approximately eighteen thousand American mothers died in childbirth last year?

How many know that one in every ten children born alive in the registration area of the United States during the year 1918 died before reaching the age of one year, and that more than one-half of these deaths could have been prevented?

How many have heard that approximately one-fifth of all the deaths which occurred in the United States during the past year were of children under five?

How many realize that perhaps two-thirds of the children attending our public

schools have been found to be suffering from dental decay, and are they aware of the bad effect of dental neglect on the growth and development of these children?

Has it ever been brought home to more than a few that practically seventeen million schoolchildren in this country are without medical supervision?

Is it generally realized that the results of the examinations under the military draft told the tragic story that the hampering physical defects observed by the Public Health Service in the children of the country have been allowed to remain uncorrected, and that they persist in the adult to such degree that only a fraction more than seventy per cent of the young men of the country, when called to the national defense, were found fit for service?

The investigation of the health problems of children is no new function of the Public Health Service, for it has long realized that there is such intimate interrelation of all health problems that the successful solution of one of them is reflected by improvement in others.

For a number of years there has been a gradual decline in the general death-rate of the country, accompanied by a similar decline in the infant death-rate. This has been due mainly to better administration of public health organizations, more general education in public health matters, and improved sanitation of the domestic and civic environment of the people.

For example, sanitarians quite generally recognize the value of the so-called Mills-Reincke statistics, which show a marked decrease in the general death-rate of cities, independent of the reduction of typhoid fever deaths, following the substitution of a safe for a polluted water-supply. This decrease is chiefly due to reduction in those diseases which are grouped under the heading of diarrheal diseases of childhood.

THE WAR AGAINST MALARIA

Let us consider malaria. This is a thoroughly preventable disease, for if malaria-bearing mosquitoes were eliminated there would be no malaria. Yet there are seven or eight million cases of malaria annually in the United States, causing a heavy economic loss to the country. Malaria is at its height when crops are harvested, and in some sections of the country there are times when crops lie unreaped because of the prevalence of malaria.

As a result of malaria surveys conducted by the Public Health Service, active anti-malaria measures are now being undertaken in forty-four communities, while thirty-five communities are maintaining the activities brought about by the surveys made in previous years. State departments of health are also beginning to appropriate money for the investigation and control of malaria. Meanwhile the improvement in the general health and economic efficiency of the whole population, following the eradication of malaria in heavily infected regions, also exercises an important effect upon infant mortality in these districts.

The Division of Scientific Research has devoted attention to the study of the tubercular poison, of the exact mechanism by which the disease is arrested, and of the chemotherapy of the disease. This work is being carried out in certain hospitals of the service; in other hospitals special studies in neuropsychiatry are being undertaken.

Previous researches by the service in pellagra have shown that this disease is due to an improperly balanced diet, and now attention is being directed toward the discovery of the precise dietary faults which bring it about. It is owing to the work of the service, and to improved economic conditions, that pellagra has very materially decreased in parts of the United States where it was formerly prevalent.

To combat the spread of trachoma—a highly communicable disease of the eyes, frequently resulting in blindness—the Health Service maintains a number of hospitals at which operations for the cure of the disease are carried out. Field clinics are also held for the purpose of instructing physicians in the methods used by the service. As a result, trachoma has been eradicated from a number of districts where it was previously prevalent.

Leprosy is one of the world's most dreaded maladies, and for ages it has been regarded as an incurable scourge of humanity. At the Leprosy Investigation Station in the Territory of Hawaii the service has studied various methods for the treatment of this disease, and recently very encouraging results have been obtained from the use of a special preparation of chaulmoogra oil. Chaulmoogra oil is pressed from the seeds of an East Indian tree, and it has been used for some time in the treatment of various constitutional and cutaneous diseases.

The starting-point in the belief that leprosy could be cured was the observation that now and then the course of the disease appeared to be favorably influenced by treatment with chaulmoogra oil. The treatment was attended with many difficulties, however, and could not be carried out in all cases. Attempts were made either to isolate the active constituents of the drug or to devise means for making its continued administration feasible. The latter was accomplished by preparing what is known as an "ethyl ester" from the chaulmoogra oil. The results thus far have been so satisfactory that lepers come willingly for treatment; and following a course of treatment extending for about a year, forty-eight lepers were paroled last fall, and have since remained free from disease.

Two years ago Congress created a Division of Venereal Diseases in the Public Health Service, appropriating two hundred thousand dollars for the work, and placing an assistant surgeon-general in charge. A supplemental appropriation of one million dollars was made, to be allotted to State boards of health for the purpose of co-operating with the Public Health Service in this important phase of hygienic work. This fund has been distributed, and at the present time there is a fully organized bureau at work in every State except Nevada.

This work is of great importance, and has been organized on a three-phase program, including medical measures, educational measures, and legal measures. In carrying out the work of control, there have been established approximately five hundred clinics where persons infected with venereal diseases may receive proper scientific treatment.

Much of the success of the medical phase of the program depends upon the cooperation given by the physicians of the country. Every effort is being made to enlist the active interest of all practising physicians, not only to report cases coming under their observation, but to see that every case is properly treated until cured.

In the realm of industrial hygiene the Public Health Service is studying intensively certain trades and occupations, the occupational diseases incident thereto, and the means for their avoidance. In cooperation with the Bureau of Mines, special studies are being made of miners' phthisis, gas poisoning in mines, and the effect upon health of humid atmospheres. In connec-

tion with the industrial hygiene work, relief is furnished to injured civilian employees of the government, relief stations being maintained in a number of Federal plants.

In the field of rural sanitation the Public Health Service is bending its energy to the problem of giving our rural districts the same degree of health-protection which is enjoyed by our large cities. Life in the country should intrinsically be healthier than city life, but, because of poor sanitary conditions and lack of health organizations, it is attended by many dangers due to the inroads of preventable diseases.

The studies in stream-pollution have been mainly directed to problems connected with the self-purification of streams, and to the establishment of fundamental data from which the standards for permissible loading of streams with sewage may be derived. The problem of trade wastes has also been studied, and in a number of instances methods have been evolved which make it possible for industries to dispose safely of their wastes.

Besides the field investigations of the diseases of man, the Public Health Service operates the Hygienic Laboratory at Washington, which is one of the finest public health laboratories in the country. Here, aside from strictly research work, control is exercised over the manufacture and sale of viruses, serums, toxins, and analogous products. A special appropriation is made for this purpose. Periodic inspections of the plants manufacturing biological products are made, and samples are regularly tested at the Hygienic Laboratory. In this way the danger of having disease transmitted by the use of contaminated products is minimized.

ON GUARD AGAINST IMPORTED PLAGUES

To prevent the introduction into the United States of Asiatic cholera, yellow fever, typhus fever, bubonic plague, and other quarantinable diseases, the Public Health Service administers the national quarantine laws and maintains all the maritime quarantine stations in the United States, the Philippine Islands, Hawaii, Porto Rico, and the Virgin Islands. In all, the service maintains sixty-three quarantine and inspection stations in the United States, and twenty-six in our insular territories. During the past fiscal year more than twelve hundred thousand persons,

passengers and members of crews, were inspected at these stations, and more than thirty-five hundred vessels were fumigated for the destruction of rats and mosquitoes.

As a further protection against the introduction of diseases into the United States, medical officers of the Public Health Service are attached to the immigration stations, for the purpose of making medical examination of all arriving aliens.

To prevent the spread of certain epidemic diseases in the United States, like bubonic plague, yellow fever, and typhus fever, Congress has appropriated for the use of the Public Health Service an epidemic fund, to be used in cooperating with State and local health authorities in the control of these diseases. In 1905, under authority of this appropriation, the last epidemic of yellow fever in New Orleans was eradicated. Since that time, yellow fever has not appeared in epidemic proportion in the United States.

Under the same authority, bubonic plague has been brought under control on the Pacific Coast and in New Orleans, and Health Service organizations cooperated in the control of bubonic plague at Pensacola, Florida, and Galveston and Beaumont, Texas, where a few cases of plague were reported some months ago.

After the war, in providing for the medical and surgical care of disabled soldiers and sailors, Congress appropriated more than ten million dollars for hospitals for the Public Health Service, and made the discharged soldiers and sailors beneficiaries of its work. During the last fiscal year the service expended more than twenty million dollars for the maintenance of this medical care. It has now fifty-six hospitals either owned or leased, and holds contracts with more than eighteen hundred civil hospitals for the care of discharged soldiers and sailors.

Some enthusiastic health agencies have questioned whether the war risk work may not absorb too much of the personnel of the Health Service; but such misgivings are not well founded. That work will be supplemental to its disease prevention activities. For example, the caring for the tuberculous among nearly five million former members of our armed services will take care of a large share of the tuberculosis in the United States.

So, too, with neuropsychiatry; a large part of this problem in the United States

will be met by the Health Service through the care and treatment of discharged soldiers and sailors suffering from nervous and mental defects. Furthermore, many of the hospitals will become research centers, and will develop better means of cure and prevention; and just as the Public Health Service has grown out of the Marine Hospital Service, it may be expected that a larger and better health service will grow out of this enlarged hospital work.

To obtain information as to the prevalence of communicable diseases, the Public Health Service receives reports from consular agencies throughout the world, and from State and local health authorities in the United States, wherever such information is available. These reports are compiled and published weekly for the benefit of sanitarians everywhere, especially for those connected with quarantine agencies.

In all the tasks that have been enumerated—and they are only a part of the work it has to do—the Public Health Service cooperates very definitely with State, county, and local health authorities. In so far as appropriations by Congress have permitted, it is assisting them to establish full-time health organizations on the most modern and practical lines.

How much this work is needed is proved by the fact that our surveys have shown that only about three per cent of the rural counties of the United States have whole-time health departments. In thirty-five counties in which Federal assistance has been made available, the work has had spectacular results. In such cases the Public Health Service contributes a certain amount toward a health budget, and by giving expert advice helps the county authorities to proceed along the most approved lines. It is gratifying to note that in practically every instance the county volunteers a larger sum for the prosecution of the work for a second year.

To conclude this brief review of the activities of the Public Health Service, mention should be made of the instructive pamphlets that it prepares and issues on subjects relating to the health of individuals and communities. Of these more than twenty-three million copies were distributed during the last fiscal year.

The Public Health Service is ready at all times to cooperate with the people of the United States in any case in which it can be helpful.

The Medal of Virtue

BY FARNSWORTH WRIGHT

Illustrated by F. W. Small

"A PACKAGE for Mlle. Josephine Duprez!"

The three men and three women who were making merry in the café raised their eyes questioningly. A champagne cork popped.

"A package for me?"

"For you, certainly, if you are Mlle. Josephine Duprez," said the postman, shaking the rain from his cape.

The girl lifted her glass for a quick sip of champagne, and rose. Her gown was cut low in the front and back, and the train dragged.

"A birthday present! A birthday present for Josephine!" shouted Yvette, letting herself fall sidewise into the arms of her male companion.

Every one laughed uproariously, as if Yvette had said something immensely clever. It was evident that the liquor was already going to their heads, although it was only mid afternoon, and Josephine's birthday party was to last far into the night.

"Is it from you, Amédée?" inquired Josephine. "How original you are, to send it to me through the mail!"

She leaned over to plant a kiss on his cheek, but her aim was bad, and the kiss fell on his open mouth. Every one laughed again. Amédée threw his arm around her, and squeezed her until she cried out. Struggling from his embrace, she ran to the postman, and snatched the package from his hand.

"*Merci, monsieur le facteur,*" she thanked him. "But, *parbleu*, this looks more like a letter than a package! Are you sure it is for me?"

"It is for you, certainly. Ah, thank you, *monsieur,*" he added, as Amédée poured him a glass of champagne.

He shrugged his shoulders once again to shake off the rain, and touched glasses around the table.

"To your very good health," he said; "and to the felicity of *mademoiselle*, for I perceive it is her birthday party."

"I am twenty-one," said Josephine.

The postman drank his champagne in little sips, smacking his lips, and chewing the bottom of his mustache, not to lose a drop of the sweet liquor. He drained the glass; then, bowing low, he went out into the blustering storm that was drenching the city of Orléans.

"Open the package, Josephine."

"Open it. A ring, I'll wager!"

"From the Emperor of China!"

"No, from the President of France!"

"From the hunchback in the Rue St. Germain—the one that makes moon-eyes at her!"

A peal of laughter greeted each of these sallies. Josephine succeeded in undoing the package. It contained a little bronze medal. The accompanying parchment proclaimed that the Society of Jeanne d'Arc for the Encouragement of Morality had bestowed on Mlle. Josephine Duprez the medal of virtue in recognition of her many good deeds.

"A medal of virtue for Josephine!"

Her companions shrieked hilariously, and fat Albert's voice went out in little flickering gasps at the top of the scale.

Yvette tore the medal and parchment from Josephine's hands. Her comrades all tried to read at once.

"For the encouragement of morality!" barked Amédée.

"Our Josephine has become a saint!" Yvette proclaimed.

"Hail to our little St. Josephine!" cried Jacqueline with mock reverence.

"For virtue!" piped Albert, between gasps.

Josephine stood bewildered. A crimson flush became visible under the rouge on her cheeks.