

Public Health and Preventive Medicine

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When the history of the twentieth century is written an outstanding feature of its early years will be the great growth of the social service or humanitarian spirit throughout the civilized nations. In the social service work of recent years we have no greater example of unselfish public service than that of leading men of the medical profession giving their ability and energy ungrudgingly to Preventive Medicine for the benefit of humanity rather than for their own personal interests. It is rather an anomaly that the men foremost in the campaign for public health are those of the medical profession who have most to lose by it in a material sense while the Insurance Companies who have most to gain from an economic standpoint are as yet more or less indifferent to its value.

The nineteenth century and especially the latter part of it was a period of city building. The great cities of Europe of to-day are a striking contrast of the days when Constantinople was the only city in Europe with 100,000 people. In 1800 only 22 cities in all Europe had a population of 100,000 or more; in 1900 the number had risen to no less than 139. London's population to-day of 7,250,000 is more than three times the combined population of London, Petrograd, Paris, Vienna and Berlin a hundred years ago. In 1800 no city on this continent had 100,000 people, while to-day nearly 70 cities claim this rank. Some Canadian cities doubled their population in the first 10 to 15 years of this century. The end is not yet. We must prepare for still greater cities. The same causes that have already produced great cities will even in our lifetime produce greater cities. Fifty years ago 70 per cent of the people on this continent lived in the rural districts. To-day 70 per cent are living under unnatural conditions amid the bricks and wire cages of our modern cities. This rapid and enormous growth of cities gave birth to many new and complex problems. One of the most important, in my own judgment, I would say, the most important problem is that of "Preventive Medicine," "proper hygienic conditions, or as more commonly called "Public Health." I recognize that the field of Preventive Medicine is not confined to urban centres, but that the need for it is multiplied and intensified by city conditions is at once granted. Nature never intended human beings to be born and reared in a packing box, especially when that packing box was one of thousands of similar purpose stacked high and close together like the apartments of the cities of to-day. We go about the daily routine of life little realizing that existence in the great congested cities of to-day would be almost impossible were it not for the great advance made by Preventive Medicine in recent years. People are apt to forget that 10,000 people died in Constantinople in a single day in 543 of plague; that it is estimated that 50,000,000 people died in Europe of smallpox in the 100 years before the discovery and introduction of vaccination; that as late as 1878 in the city of Memphis one-third of the population died of yellow fever. Who shall attempt to calculate the economic value of the measure of Preventive Medicine that puts these scourges into the past. But, they are of the past only as we are eternally vigilant. The problem of producing human life, of maintaining human life and human efficiency, of making life livable, especially under city conditions, is the problem or task of Preventive Medicine. Some attempts to stem the growth of cities have been made, but the effort was as brushing the ocean waves from the shore with a broom. Attempts have been made to turn people back from city to rural life, but these efforts were as useless as attempting to drive the moth from the candle. In recent years men have ceased in large measure to war against the inevitable growth of cities and have wisely turned their efforts to making, if possible, the inevitable the preferable. The medical profession, the scientist, the educator and the philanthropist are each taking a part, but outside of these there is among the masses of the people a lamentable lack of knowledge or appreciation of the merits of the campaign for Public Health and of its value to the community and to the individual.

It has been well pointed out that while philanthropy may lead and does lead in most of the great reforms, yet in order for these reforms to be permanently successful the task must sooner or later fall upon the Government of the land. I think I am right when I say that Governments generally speaking do not pioneer and lead the people in the matter of reforms. Most Governments seem satisfied to

take such action in these matters as the public mind forces them to take. Perhaps this is the proper kind of Government. We will not discuss that now. To inform and educate the public mind is then the greatest task ahead of the Public Health campaigner to-day.

The two great obstacles to the advance of Preventive Medicine have been a widespread and almost traditional belief in:

- (1st). An iron law of mortality beyond the influence or power of man.
- (2nd). That disease, epidemics and death were the visitations of Providence.

If the public mind and thereby the individual could once grasp the fact that there is no unchangeable law of mortality, but that the span of life is conditional in large measure upon the hygienic conditions under which we live, great progress could be made. In the education the church, the school, the municipality, the fraternal society, the insurance company, the manufacturer and allied interests can and should play a great part. In educating the public mind nothing is, in my judgment, as useful and convincing as the presentation of actual facts, such as the following, giving the results accomplished by Preventive Medicine.

- (A). In a paper given before the Royal Statistical Society of England, Baines calculated that the average duration of life in India was 23 years for males and 24 years for females, or less than one-half that of the civilized countries of Europe. In answer to this the argument may be made that the climatic and social conditions of India account for the short lives, but this argument admits that the span of life in India is governed by living or hygienic conditions. Our next fact, however, throws light upon this.
- (B). Colonel Gorgas, with the instruments of Preventive Medicine,
- (C). Certain unsanitary conditions in Paris and Glasgow show a mortality more than twice that of the sanitary conditions.
- (D). In the 14th Century the Black Death, probably Bubonic Plague carried off from one-half to two-thirds of the population of Europe. Each succeeding century has seen its return in Europe but in an ever reducing extent. Medical service has discovered the cause of Bubonic Plague, its method of propagation and the means by which its spread is prevented. Bubonic Plague still exists in certain lands and if the Medical and Sanitary Officers of our own country were all to take a holiday, we could soon have another visitation of Black Death.
- (E). The city of New York has carried on in recent years a very aggressive Public Health work with the result that the Death Rate reduced year by year until in 1915 it was only 16.4—the lowest in the history of the city.

To those already familiar with these facts the recitation of them may be a little tiresome, but it is not enough that the leaders in this movement know; the masses must know and they do not know. I believe that the widespread dissemination of facts, such as those, would arrest the attention of the individual and show him the value of Preventive Medicine in lengthening his own span of life. To accomplish this is to secure his co-operation for, say as you will, man's first desire is to live and second is to live comfortably.

The belief that disease and epidemics, with the resulting premature deaths, are the visitation of Providence is not by any means of the past. The belief is yet widespread. I yield to no man in my humble love and reverence for the God of all our lives. But, this belief is repugnant to me and has been, I am glad to say, since my boyhood days. Man has too long by this subterfuge side-stepped his responsibility for the dirt and carelessness that produced disease and death. The mass of the people must learn that communicable diseases may be largely prevented if we will use the faculties of cleanliness care and precaution which God has given us and God seldom does for us what we can do for ourselves. In this we have some reason to suggest the assistance of the clergy of our churches. If funeral sermons were honest and in my judgment the theology more correct, there would be a small attendance of Town Fathers at the funeral of the man