

INFANT MORTALITY AS A PUBLIC HEALTH PROBLEM

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One might say infant mortality is not a public health problem: it is THE public health problem. Infant deaths (that is, deaths of babies *after* their birth but under one year of age) constitute one-fifth of all deaths at all ages, and, physicians tell us, at least half of them are preventable. Deaths before birth are said to be even more numerous than infant deaths.

Some years ago France, appalled at the small margin between births and deaths, took steps to lessen the number of infant deaths, and Germany and England have not been far behind her. Congress, in creating the Children's Bureau, assigned to our own country the task of studying this question. In spite of all the study that national governments have given the subject, the problem is not yet solved. The hopeful thing though is that in some places where serious efforts have been made a reduction in the infant mortality rate has actually occurred.

The great loss of life in this disastrous war has so thoroughly aroused public interest in the subject in Europe that one of the war economies most prominently urged and generally accepted there is economy in babies.

Few Europeans today discount the value of war equipment, yet England's practical men and women are urging that "babies are of greater import than battalions and truer dreadnaughts." Germany designates its present reinvigorated efforts for the conservation of infant life as "movements of increasing and improving national efficiency." France tells her citizens that the combat against such of their enemies at home as alcoholism,

tuberculosis and infant mortality is of pressing import and of vital necessity, and that infant mortality is now a problem of the life and death of the nation and all other problems are secondary.

These countries and even Belgium, with all her burdens, and the small neutral countries divert attention from details of fighting, and appeal to patriotism in language that every one understands. Dr. Louis C. Parkes, before the Royal Sanitary Institute, estimated that two years of war cost the five principal belligerent nations (England, France, Russia, Germany and Austria-Hungary) nine millions of males of military age. Adding losses sustained by other countries he brings the total up to twenty millions. The people in Europe are told to "Make up for the terrible wastage of war by conserving all the young life possible"; that "The child should have a fair start in life and arrive at maturity physically fit to take his part in the heritage of the Empire"; "The nation needs men, more men, still more men, and the child is father to the man"; "The nation survives in its young," and so on.

We think with horror of the number of American lives lost in Mexico, or on the high sea and in the danger zones and some of us demand action—to prevent these losses. Why should it take the awful shock of the unexpected or of war to make us see things? Why should not our health officers try to make our people see that our complacency in a steady calamity of more than one third of a million infant deaths yearly, is a terrible indictment? The conscience of Europe is touched by its infant deaths—it thinks it needs men to win its wars.

We like to think it is an American belief and ideal that every child has the right to be protected from disease and to have a fair chance in life. When all of us fully realize that steps to lessen infant mortality are the most fundamental in the whole program of the conservation of national vitality, we will demand that health officers everywhere act. By demanding that they act I mean vote them funds for their work.

There are people who say that any attempt to reduce infant mortality is an interference with natural selection which tends to lower the average health of survivors. But a human being is not merely the sum of his ancestors. If this were true perhaps

there would be but one type of mammal or one type of life. By using "the words nature and nurture for the terms heredity and environment" and thinking of a living being not as nature alone, nor as the sum of nature and nurture, but as the product of nature and nurture, we can, I think, more readily see that effective work in the reduction of infant mortality requires the ascertainment of the social, economic and civic factors involved.

An infant with the most favorable heredity will most certainly succumb if exposed long enough to the fumes of illuminating gas, hence we guard it against such exposure and we guard it also against exposure to damp and to cold draughts—even though there be no respiratory taint in its heredity. Things that kill and weaken do not invariably attack the unfit, they sometimes kill the fit or make them unfit.

The Children's Bureau has no administrative functions. It has been ordered by Congress to "investigate and report," and it is seeking to ascertain the degree of coincidence that exists between various social, economic, and civic factors, and a high or low infant mortality rate.

Its method of studying infant mortality is to secure data directly from the mother by visiting her after at least one year has elapsed since the birth of her child, even though the child may have been stillborn or may not have survived a full year. Some of the questions are very intimate and personal, but our refusals have averaged less than one per one thousand mothers interviewed.

Our findings thus far indicate that a high infant mortality rate is a definite, significant symptom of defective social and economic conditions, but it is exceedingly difficult to measure the relative importance of each factor.

On account of poverty a mother may remain ignorant of the simple rules of hygiene that might promote her own and her baby's health. Or, on the other hand, she may well know the advantages of fresh air, cleanliness, sunlight, and proper food for herself and baby, but be without the necessary facilities for ventilating her home, or without time or means to secure cleanliness and other wholesome conditions that she appre-

1 C. W. Saleeby, M.D., "Nature and Nurture," *Nat. Health*, London, Mar. '16.

ciates and desires. Babies die at a greater rate where these advantages are lacking.

A high death rate is coincidental with house congestion. Congestion implies all sorts of other unfavorable conditions and is usually a result of poverty. It might be relieved to some extent, however, if suitable homes were available at a moderate rate.

Artificial feeding in the early months of life also has an important share of the responsibility for a high infant mortality rate. The cessation of breast feeding is largely traceable to ignorance, but such ignorance is not confined to illiterates. Either because they cannot afford competent advice on the subject or because they fail to realize the importance of feeding, mothers, acting on their own or their neighbor's mistaken judgment, sometimes discontinue breast feeding because they fancy their own milk is insufficient, or that it does not agree with the baby, or that it makes very little difference in any case. Some mothers stated that when they got up from child-bed too soon and had to take up tasks, that taxed their depleted strength, their milk left them entirely. Sometimes the discontinuance of breast feeding in the early days or months of a baby's life is absolutely essential. A contagious disease or another pregnancy may make it necessary to give the baby artificial food. But we believe a vigorous educational campaign in favor of breast feeding is urgently needed.

The influence of unfavorable prenatal conditions is evidenced by stillbirths and by numerous deaths in the early days and even early hours of life, as well as by the frequency with which physicians certify prematurity, congenital debility and congenital malformations as a cause of death. Dr. Saleeby says, in effect, that one might say of a child whose mother had worked in the lead industry during her pregnancy, "better dead"—if the child happens not to have been born dead. Health officials should try to reach prospective mothers in a community and make known to them the dangers of such work during pregnancy. If the episode of birth were the beginning of life we might disregard these deaths and begin preventive work after a child enters the world. Why not consider the advisability of that measure which is now being advocated abroad for compulsory notification of pregnancy so that in-

fants need not be born unfit because their mothers were not cared for during pregnancy? It is important, moreover, to impress the mother in advance of the baby's arrival, with the urgency of breast feeding from the earliest possible moment after birth.

Education, by means of the publication and distribution of **properly prepared health literature**, in the languages spoken in the community, may do something to improve the health not only of the prospective but of the nursing mother as well. Of course this will not avail where a woman's poverty will not permit her to have the necessary nutrition and care. If such a **poverty group is large, the remedy frequently lies in the hands of the community itself.** For example, a community need not permit industry to operate in such a manner that it absorbs the time and strength of a large part of the population and yet returns, in the form of wages, so little that the individual workers are unable to purchase the right to live in sanitary homes in healthful localities and to provide for themselves and their children a supply of clothing and food adequate for health and comfort. Any industry is a parasite on the community when its workers must herd together in **unhealthy places** and become a menace to the public health and morals. Children born in such surroundings, it has been demonstrated, die at an abnormal rate. Literature alone will not help a mother to protect her baby if her husband's low earnings force her to labor and live under all the conditions of their resulting poverty that are so detrimental to health. Unless the community evolves a plan of regulating the industries within its limits which, while employing, consume mentally and physically the people whose hands labor to build and enrich them, it can never adequately reduce its infant or other death rate, or its expense of caring for defectives, dependents and delinquents.

Writers and speakers in recent years have so insisted upon the uselessness of the excessive number of infant deaths that the public is ready to regard infant mortality as an index of the **efficiency of public health administration.** Any health officer who now convinces his community of the truth of New York's motto, "Public health is purchasable," and then makes it realize that a direct attack on infant mortality will, as a by-product, create a healthier community will have done a great work.