PUBLIC HEALTH

# 1938 Will Be Healthy With Probably No Major Epidemics

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NINETEEN thirty seven has again been a remarkably good health year. The prediction I made for Science Service a year ago has been more than fulfilled.

At the very beginning of the year, to be sure, it seemed that my optimism had been ill-founded. An unseasonably warm January was marked by an unusually high mortality rate. Among the 17,500,000 people who are Industrial policyholders in the Metropolitan Life Insurance Company, for example, the January death rate was more than 10 per cent. higher than during the corresponding month of 1936. Later on, reports for the general populations of a number of States and cities showed that the year had gotten off to a decidedly bad start in various parts of the country.

## Influenza Epidemic

The chief cause of the increased mortality was a widespread outbreak of influenza; and this was accompanied by a high incidence of fatal pneumonia and by increased mortality from most of the chronic diseases. This condition practically always accompanies influenza epidemics; many chronically sick persons die prematurely because they are unable to withstand an attack of influenza.

In February, too, the mortality picture was unfavorable; but in March there were signs of a turn for the better. Reports from the flood areas of the Ohio and Mississippi valleys showed that the aftermath of the floods had not been as bad as we had all feared, and that the magnitude of the death toll chargeable to flood conditions had been wildly over-estimated. Indeed, one of the brightest spots in the health record of 1937 is the efficiency which was shown by national, State, and city health officials in coping not only with the immediate emergencies but with the serious potentialities arising from the worst flood in the history of the Ohio and Mississippi valleys.

In April there came a distinct turn for the better, and there followed, beginning with May and extending through seven successive months, a continuous series of all-time low monthly death rates among the millions of Metropolitan policyholders. The crowning distinction, however, goes to the month of September, when the death rate was *the lowest ever recorded for any single month* in the history of this large cross-section of the population.

I hope my readers will understand why I must fall back upon our insurance mortality figures as a gauge of the current health situation. It is because complete and accurate statistics pertaining to the general population of the United States are not yet available—and will not be for some time to come. Such fragmentary information as we have been able to gather for the population at large (and it comes from all parts of the country) points, however, to a lower nation-wide death rate this year than last. Some sections have fared better than others and in some parts of the United States there appears to have been higher mortality in 1937 than in 1936. But, all in all, 1937 is a good example of what has happened several times in the past, namely, that despite a bad beginning, a year may close with an excellent health record.

## Record Called Favorable

Aside from the influenza epidemic of last winter and a serious outbreak of poliomyelitis (particularly in the States bordering the Mississippi River and the Great Lakes), the 1937 record for the principal controllable diseases has been distinctly favorable. It is true that more deaths have occurred from whooping cough this year than last, and that during the final quarter the mortality from diphtheria has increased somewhat; but the mortality rate for each of these diseases is still at a low figure and gives as yet no serious concern.

I said a year ago that the mortality from tuberculosis might not continue to show as high a rate of improvement as had obtained for a decade past. Up to the end of May it looked as if there would be no improvement at all, but since then the outlook has brightened and a new low death rate, showing a considerable drop (perhaps as much as 4 per cent.) from that of 1936, is now assured.

The most favorable development of all, in 1937, has been another pronounced drop in the mortality from diseases associated with pregnancy and childbirth. The 1937 figure will mark a drop of approximately 50 per cent., as compared with that recorded only ten years ago. It is true that the birth rate has declined and fewer women have been subject to the hazards of pregnancy and childbirth. That, in itself, would reduce the puerperal death rate. But it is also true that the decline in deaths arising out of pregnancy and childbirth has exceeded the drop in the birth rate. Accordingly, there can be no doubt that there has been a genuine decrease in the hazards of maternity.

## Syphilis to Show Decline

Lower rates in 1937 than in 1936, I believe, will be in evidence at the end of the year for most of the principal degenerative diseases, and for syphilis.

There are very few bad spots in the 1937 health record. More deaths from coronary artery diseases were reported than in the immediately preceding year, and the death rate from this cause has again shown a sharp rise. This repeats the experience observed in each successive year since 1930. Part of this increase is fictitious and is due to increasingly accurate diagnosis of coronary conditions; nevertheless, there can be no doubt that an actual increase has occurred in the mortality from these diseases. The cancer death rate is up slightly. It dropped a bit in 1936, but the decline then observed now appears to have been a temporary deviation from the practically continuous upward tendency observed over a long period of years. The reader will understand that most of the deaths from cancer occur in the upper age ranges of life; and with the average age of the population increasing (as it has been doing and will continue to do) an increasing proportion of the population is comprised within the ages where cancer is one of the major causes of death. When we are able to adjust the 1937 cancer death rate to take this age factor into account, we may find that there was no real increase at all. However that may be, it is quite certain that the cancer death rate *is not decreasing;* that cancer ranks second in numerical importance among all the causes of death, and that today the largest opportunity in the entire field of public health lies in the control of cancer.

Another unfavorable item in the 1937 health picture was a marked increase in the prevalence of smallpox in certain states. It is a shameful fact that despite the ease with which this disease can be controlled, the number of cases has steadily increased in this country since 1934, and it is now certain that the total number of cases this year will be more than double the figure for three years ago. It is very fortunate, indeed, that most of the smallpox which has prevailed has not been of the virulent type and that, consequently, the case-fatality rate for this disease has remained low.

The accident situation in general improved somewhat during 1937, although the number of deaths from occupational accidents and automobile accidents has shown an increase. These increases, however, have been more than offset by the decline in fatal accidents in the home.

### More Influenza Unlikely

At this writing, the general public health outlook for 1938 appears favorable. We must, of course, always reckon with weather conditions and no one can foretell what they will be during 1938. The health services and the social agencies were never more alert than now, and I believe they will be given all possible encouragement and support. That will make for less sickness and fewer deaths, unless, of course, we meet with an unforseen epidemic. No one can ever be certain about this contingency. A severe epidemic of influenza, for example, would result in many thousands of deaths and an increased general mortality rate. We are not likely to have an important influenza outbreak in 1938, however. We had one early in 1937 and it does not often happen that this disease obtains epidemic prevalence two years in succession. There is, in my judgment, little likelihood of a major outbreak of any of the other communicable diseases.

### Tuberculosis To Decline

I believe that tuberculosis will continue to register a declining mortality, and that the unremitting campaign which is being waged against the diseases of pregnant and parturient women will show continued progress and will result, also, in a lowered infant mortality rate.

Please understand that there is no guarantee in these predictions, but I am, as I was a year ago, very optimistic about the outlook for the health of the American people. We are learning every day how to profit from the increased knowledge coming from the scientific medical laboratories; our official agencies are becoming more skilled and are supplied with more resources; our press is cooperating more actively in the campaigns for better health. Altogether, the outlook continues to be extremely promising for longer and healthier living for Americans.

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son. Usually the female goes away to a wild and secluded place, there to have her litter of six or eight pups. She is crabbed and suspicious at that time and will not permit any male dogs around her. For she knows that the male husky will eat her pups if he gets a chance. In winter, the Eskimos build a small snow kennel for the mother dog, place bags or skins on the floor and make the animal as comfortable as possible.

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Sixty British scientists have formed a society to study snow and ice.

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Even smaller towns of Britain had theaters in the time of Roman conquest.

*NEARLY PURE BRED*

***This grayish-white dog, which can pull its own weight in sled and supplies, is typical of the thousands of nearly pure-bred huskies in the Far North. Indiscriminate cross-breeding has, however, made large inroads in the purity of the breed.***

PHYSIOLOGY

## Bulldog's Build, Behavior Due to Glandular Defects

THE bulldog's peculiar head, body build and behavior, including the occasional devouring of bulldog puppies by their mother, have been traced to defects of thyroid and pituitary glands in research reported by Dr. Charles R. Stockard of Cornell University Medical College to the American Association for the Advancement of Science.

These gland defects in the bulldogs, and other gland defects or disorders in other breeds of dogs, are inherited and are associated with changes in the animals' instinctive behavior.

Dogs like the St. Bernard and the bloodhound have inherited pituitary gland defects which are responsible for their peculiar build. Humans with this particular gland defect grow into giants with lantern jaws and huge hands and feet.

### Clumsy Mothers

In the giant dogs, the maternal instinct is undeveloped. The mothers ignore their puppies and have to be taught to lick and clean their young. All the puppies in the litter may be crushed to death within a few days because of two other defects in maternal behavior. These are failure of the "push reflex" and of a reflex for limp bending of wrist and ankle. The "push reflex" is shown by the normal bitch when she lies down beside her puppies, carefully letting her body slide down and pushing the puppies away so as to avoid mashing them. The wrist and ankle reflex serves to push the puppies aside as the foot of the mother descends to the floor of the nest when she returns to her puppies.

Feeding magnesium salts to the mothers, Dr. Stockard reported, was partially successful in overcoming the failure of proper maternal behavior, but the fault was in the glands, not the diet.

The change in a normal dog from a frolicsome puppy to a sedate and dignified grown-up dog and the dog's devotion to his master are also governed by gland changes. Before the dog has matured he is equally attracted by any friendly person but after he has gone through certain normal gland changes he develops his strong devotion to his master. These gland-linked behavior changes are characteristic of all dogs but are more emphasized in breeds like the bull that have abnormal glands.

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