WHAT effects is the economic depression having upon the health of the American people? The indices of health—or rather of ill health—upon which we ordinarily rely have pointed so far to a condition that is surprising to many. After several years of severe economic stress, the gross death rate has attained the lowest level on record. Infant and tuberculosis mortality have not increased in the country as a whole; on the contrary they have continued to decline. These encouraging indications have led to considerable speculation on the part of some as to the possible advantages of “tightening the belt” during hard times, of returning to “simpler and saner living,” of the “toughening” regimen of adversity. Others have offered the explanation that any ill effects have been prevented by a marvelously efficient public health system and program of social relief, and are concerned chiefly over the possibility of a breakdown in these efforts before necessary economic readjustments can be completed.

Whatever may be the reasons for a low death rate during an unusually severe economic depression, the fact that the death rate has continued on a low level must be accepted as a most encouraging sign. It is indubitable evidence that up to this time unemployment, diminished purchasing power, altered standards of living, even privation, have not killed very many of the population. But this indication should be accepted only in so far as it really is a sign of good health. The death rate is not an adequate criterion of the extent of sickness and impairment. It is not affected immediately by unfavorable living conditions unless starvation and pestilence are actually present. It does not promptly reveal de-
creased resistance to disease. It is not an accurate measure, for example, of malnutrition. Furthermore, the gross mortality rate for the nation as a whole or for any large group of the population does not tell whether or not certain elements of the population are suffering from ill health; the actual increase in illness and mortality among that fraction which has been reduced to poverty by the depression may be masked by the general downward trend of the mortality among the more fortunate and larger moiety of the population. In fact, fragmentary information\(^1\) already gives a hint of warning that in certain areas and among certain classes of the population, the situation is not nearly so favorable as gross mortality rates appear to show. Malnutrition among school children apparently has increased, in some localities at least. A higher infant and tuberculosis mortality has been experienced in certain areas of New York City where unemployment was most serious. Signs of an increase in the number of cases of mental disease are not lacking. Already there is some evidence that the sickness rate has risen among the unemployed population, especially in those instances where social relief has been unequal to the situation.

These indications of an unfavorable tenor, as well as the

obvious desirability of appraising the situation as accurately as possible, led Surgeon-General Hugh S. Cumming of the United States Public Health Service to direct an inquiry to be made into the prevalence of sickness and malnutrition and into changes in economic status and standards of living in sample populations that are known to be seriously affected by unemployment. The purpose of this inquiry was to obtain first-hand information in order that such questions as the following might be answered:

Are the unemployed and their families subject to an unusual amount of sickness of various kinds as compared with other groups less severely affected? Do evidences of ill health show any relation to the severity of the depression as actually experienced by families? What is the nature of ill health as evidenced by sickness? Is malnutrition among children a more serious problem now than a few years ago, and if so, in what groups of the population is it most pressing? What have been the effects of the depression upon housing and diet? Is there a decrease in the amount of medical and
surgical care available to families seriously affected? How successful have been social relief and public health in coping with the consequences of the depression?

The inquiry possesses an added significance because it is coordinated with similar inquiries in several other countries under the auspices of the International Health Organization of the League of Nations.² Along the general lines suggested by experts of and collaborating with the League's Health Section, the investigation was planned to cover four important phases:

1. A record of illness in the late spring of 1933 and of mortality in 10,000 or more families, selected from the lower economic classes of the population, which could be correlated with their economic experience during the period 1929-1932.

2. A survey of diet and housing conditions among sample families selected from the population for whom a record of illness and economic history was secured.

3. Physical examinations of school children in sample families selected from the same group in at least two of the cities.

4. An analysis of mortality experience during the depression, particularly in localities where the records are available by health areas, enumeration districts, or other suitable subdivisions.

²See Minutes of the 19th session, Health Committee, Health Organization, League of Nations, Geneva, October 10th to 15th, 1932; Report of the Conference at Berlin, December 5th to 7th, 1932, on The Most Suitable Methods of Detecting Malnutrition Due to the Economic Depression, Quarterly Bulletin of the Health Organization, League of Nations, March, 1932, pp. 116-129. The statistical committee representing the United States named by Surgeon-General Cumming to collaborate with the League is composed of Edgar Sydenstricker, Louis I. Dublin, Walter F. Willcox, and Selwyn D. Collins. In 1932, two American representatives, Drs. John R. Murlin and Kenneth D. Blackfan, named by Dr. Cumming, were sent by the Milbank Memorial Fund to attend an international conference at Berlin to discuss and formulate plans for inquiries into the nutritional status of children during the depression.
Since most of these records had to be obtained from house-to-house canvass, the inquiry was a large undertaking. Lack of funds and personnel limited the survey to ten localities but it was believed that whatever definite indications were found in these localities would be fairly representative of the situation in similar populations in the rest of the country.

In order to facilitate the study and to enlarge its scope to include the ten localities, the Milbank Memorial Fund placed several of its staff at the disposal of the United States Public Health Service and rendered financial assistance for purposes for which government appropriations were not available. The project has been a collaborative undertaking on the part of the research and field staffs of the Service and the Fund, and furnishes another example of useful cooperation between official and private agencies in rendering a public service.

The collection of the data has been completed and the arduous task of tabulating the results is under way. With Surgeon-General Cumming's concurrence, it is possible to present some preliminary and partial results of the study in the three brief reports which appear in the following pages of this issue of the Quarterly Bulletin.

The reader is referred to the extremely interesting papers for details but some short general comment may be pertinent:

If the incidence of sickness may be accepted as a more delicate index of ill health than mortality, the surveys in Birmingham, Detroit, and Pittsburgh, as reported by G. St.J. Perrott and Dr. Selwyn D. Collins, clearly point to the fact that individuals in the lower income classes in 1932 were sick more frequently than individuals with higher incomes. This fact is manifested for each of the three cities. But, as is well known, this correlation between sickness and ill health is not confined to periods of depression; it is obviously desirable, therefore, to ascertain whether or not the higher sick-
ness rate among the poorer classes was in any way associated with changes in their standard of living due to the depression. The next very significant and interesting point is brought out that the highest sickness rate was found in the group whose economic condition had manifested the greatest change downward from 1929 to 1932. The illness rate was 60 per cent higher among persons whose economic status had dropped from that of reasonably comfortable circumstances in 1929 to poverty in 1932 than that of their more fortunate neighbors who suffered no drop in income. In fact, those individuals who were in a condition of poverty in 1929 and continued in that condition through 1932 apparently had less sickness than the higher income group which suffered most severely from the depression—a finding that immediately tempts one to speculate as to the underlying reasons. The direct effect of unemployment is suggested by the fact that the sickness rate in families of the unemployed was about 40 per cent higher than in the group having full-time wage-earners. All of these comparisons apply to total sickness, disabling illnesses, as well as illness resulting in confinement to bed.

Physical examinations of several hundred school children in the Bellevue district of New York City, conducted by physicians from the New York City Health Department, the United States Public Health Service and the Milbank Fund, and reported upon by Dr. Clyde V. Kiser and Dr. Regine K. Stix, showed that in this area, which was seriously affected by the depression, a high rate of malnutrition existed in the late spring of 1933. The children were selected from families included in the sickness and economic survey but the examining physicians had no information as to their economic status or the extent to which the families had been affected by the depression. Only about 25 per cent were rated
as "good" in nutrition and about 35 per cent were rated as "poor" or worse. When the children were later classified according to family income, it was found that for each sex and age group there was a consistent direct association between nutrition and low economic status. Over 40 per cent of those in the lowest income class were judged as "poor" and "very poor" in nutrition as compared with only 25 per cent in the highest income class—which, by the way, was not very high. Furthermore, when the nutrition of children in families suffering the greatest drop in income during the depression is compared with that of children in families not so seriously affected, it was found that the extent of malnutrition in the former group was nearly twice as high as that in the latter. Children in families without social relief were found to have a higher rate of malnutrition than similar families aided by relief.

A preliminary computation by Miss Dorothy G. Wiehl of the average diets of several hundred families in the Bellevue area clearly suggests that a dietary deficiency, at least in the calorific value and probably in certain food essentials, existed in families most seriously affected by the depression as compared with families less seriously affected. Here again, the efficiency of relief activities is indicated. Families aided by relief funds, particularly when relief took the form of stipulated orders of specific foods, had a better diet than unemployed families without relief.

Although these are but preliminary and fragmentary results from only a part of the large mass of data now being analyzed in greater detail, they are consistent and significant. They tend to corroborate what those in close touch with the large unemployed part of our population have observed, that privation is having deleterious effects upon the health of many. How serious and how lasting these effects will be,
it is as yet impossible to say, but such indications as this study so far affords should at least constitute a warning against the complacency fostered by too complete reliance upon so crude an index of health as the death rate, and against any relaxation in the maintenance of preventive and relief measures.