

# PUBLIC HEALTH REPORTS

VOL. 48

OCTOBER 13, 1933

NO. 41

## SICKNESS AND THE ECONOMIC DEPRESSION<sup>1</sup>

Preliminary Report on Illness in Families of Wage Earners in Birmingham, Detroit, and Pittsburgh

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What effect 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.

<sup>1</sup> From the Office of Statistical Investigations, United States Public Health Service, and the Division of Research, Milbank Memorial Fund. This study was made also in cooperation with the international inquiry being carried out in various countries under the general auspices of the Health Organization of the League of Nations, the American committee being composed of Edgar Sydenstricker, Milbank Memorial Fund; Louis I. Dublin, Metropolitan Life Insurance Co.; Walter F. Willcox, Cornell University; and Selwyn D. Collins, U.S. Public Health Service.

The cooperation of local health officers and others in each locality who assisted in the surveys is gratefully acknowledged.

A large part of this paper appears also in the Quarterly Bulletin of the Milbank Memorial Fund for October 1933.

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, and even privation have not *killed* very many of the population. But this indication should be accepted only insofar 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 decreased 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 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. Higher infant mortality and tuberculosis death rate have 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 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 the United States Public Health Service to make an inquiry 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.

#### METHOD AND SCOPE OF THE INVESTIGATION

The investigation obtained records of illness for a 3-month period in 1933 and an income and employment record for 4 years for some 12,000 families in 10 cities by house-to-house canvass. In addition, a study of diet and housing conditions was made among a small group of families in each surveyed city, and school children in enumerated families were examined in two of the cities. The present paper includes only provisional sickness data in three of the canvassed cities—Birmingham, Detroit, and Pittsburgh.

*Selection of cities.*—Large cities were selected for the survey, with two exceptions, because unemployment and the privation incident to unemployment were known to be greater in the large cities. Eight cities were included, as follows: Detroit, Cleveland, Pittsburgh, Syracuse, New York, Brooklyn, Baltimore, Birmingham. In addition, a survey was made in a number of coal mining camps in the vicinity of Morgantown, W. Va., and in cotton mill villages near Greenville, S. C.

*Selection of areas within the cities.*—Districts were selected in the poorer sections of the cities. Well-to-do sections were disregarded because the dwellers in these areas, however much their incomes may have decreased, were presumably living above any scale that might involve deprivation of the things necessary to health. On the other hand, slum areas were also avoided. The desired sample of the population was one which contained a high percentage of individuals able and willing to work but in which unemployment was high at the time of the canvass.

Living side by side with these families of the unemployed, there were other families who, even in these poor districts, were still in reasonably comfortable circumstances, that is, had adequate food, clothing, and shelter. These "comfortable" families serve as a control group whose illness record can be compared with that of families in a state of comparative poverty for 1 or more years prior to the survey. It should be emphasized that in the selected districts every family was included unless the information was refused, and refusals were exceedingly rare.

*Nature of information obtained.*—The information called for on the schedule included (a) occupation, income, and regularity of employment of each wage earner for each year from 1929 to 1932, (b) nativity, racial stock, and education of husband and wife, (c) a complete census of the household, with birth date, sex, and marital status of each member, and (d) illness of each member during the three months prior to the enumerator's visit, together with the extent of medical, hospital, nursing, and dental care received.

*Method of obtaining the information.*—For each city a local supervisor was assigned from the Public Health Service or the Milbank Memorial Fund. The supervisors were already experienced in the collection and tabulation of data of the kind here considered, but to secure accuracy and uniformity they were given an intensive training in the meaning of the items on the schedule and the method of recording the data.

Enumerators were hired locally. It was possible to secure very capable men and women for the work, many of them having had previous experience in surveys for social service groups and relief organizations. The enumerators were given a preliminary period of training in order to make them familiar with the schedule and were

taken by the local supervisor to interview several families before making any visits alone. Enumerators were instructed and encouraged to be thorough rather than rapid in their work.

Both the supervisor and the enumerators worked under written instructions so that the surveys would be done in as comparable a manner as possible in all cities. In addition, one of us (G. S. P.) acted as general supervisor and visited all but two of the communities either to start the work (select districts, enumerators, etc.) or to check the selections made by the local supervisor.

#### THE POPULATION SURVEYED

*Number.*—In the three cities included in this preliminary paper, schedules were obtained from about 3,500 white families. The families here considered are those for which the employment and wage record and other income facts were sufficiently complete to permit computing of exact incomes for each year from 1929 to 1932 and for which other information was reasonably complete. There were 2,566 such families including 11,330 individuals.

*Occupational composition.*—The population was largely of the wage-earning class. The usual occupation of the chief wage earner in 1929 was that of skilled laborer in 59 percent of the families; unskilled, 19 percent; clerical and salesmen, 13 percent; dealers, merchants, etc., 7 percent; professional, 2 percent. In 1932, in 18 percent of the families the chief wage earner was without employment throughout the year.

Considering all the wage earners in the family, in 1929 only 1 percent of the families had no employed workers, 16 percent had only part-time workers, and 83 percent had one or more full-time workers.<sup>2</sup> In 1932 the percentages were 12 percent no employed workers, 40 percent part-time workers only, and 48 percent full-time workers.<sup>3</sup> The same downward change is evident here as in the per capita and family income, one, of course, being the cause of the other.

*Nativity and racial stock.*—In nearly 54 percent of the families the head of the household was native white of native parents, in 14 percent of foreign or mixed parents, and in 32 percent foreign born. The racial stock of the group of foreign or mixed parents was largely English, Irish, and German, while that of the foreign-born group was more evenly distributed between English, Irish, German, Polish, Italian, and Slavic.

<sup>2</sup> Includes 2 percent of families whose wage earner was living on income or pension.

<sup>3</sup> Includes 3 percent of families whose wage earner was living on income or pension.

## ECONOMIC HISTORY OF FAMILIES

*Meaning of "Income."*—Income as computed in this study includes all receipts from any source—salary, royalties, interest, pension, savings, borrowed funds, gifts, and public and private relief. In the case of families given a weekly food ticket from welfare institutions, its value was included in the family income. Free or unpaid rent was not included because of incomplete data on this item.

*Family incomes 1929 and 1932.*—No attempt was made to select districts in which the income distribution of the surveyed families would be representative of the cities as a whole. The plan, as already outlined, was to include sections having families who in normal times were in moderate circumstances, but who in large numbers had been reduced to poverty or near poverty during the depression. A rough idea of the income distribution of the surveyed group in 1929 and 1932 as compared with large cities and the entire United States may be obtained from table 1.

It will be seen that even in 1929 the surveyed population as compared with the total population of large cities contained a considerable excess of families below \$1,200 in annual income (25 percent as compared with 7 percent) and a deficiency of families over \$3,000 (18 percent as compared with 39 percent). The closer agreement with the estimate for the United States in 1928 is simply fortuitous. The total population of the United States contains a larger proportion of low incomes than the population in cities of 100,000 or more inhabitants because of the dwellers in small towns and rural areas, where money income and the general level of prices are lower. Negroes are also a low income group that live largely in rural areas.

The table shows also the tremendous drop in income experienced by the surveyed population from 1929 to 1932. In 1932, 69 percent of the families received incomes less than \$1,200 per year, as compared with 25 percent in 1929. Only 9 percent of the families had incomes over \$2,000 in 1932 as compared with 40 percent in 1929.

TABLE 1.—Percentage distribution according to total income of families (1) in the surveyed population for 1929 and 1932, (2) as estimated for all cities of 100,000 and over, and (3) as estimated for the United States

Total family income per annum	Surveyed group in Birmingham, Detroit, and Pittsburgh		Cities of 100,000 and over in United States, 1928-31 <sup>1</sup>	United States, 1928 <sup>2</sup>
	1929	1932		
Under \$1,200.....	25.2	69.3	7	21.3
\$1,200, but under \$2,000.....	34.5	21.6	27	34.0
\$2,000, but under \$3,000.....	22.7	7.0	27	21.5
\$3,000 and over.....	17.6	2.1	39	23.2
All income.....	100.0	100.0	100	100.0

<sup>1</sup> I. S. Falk, Margaret C. Klem, and Nathan Sinai: The Incidence of Illness and the Receipt and Costs of Medical Care among Representative Families. Publication No. 28, Committee on the Costs of Medical Care.

<sup>2</sup> Louis S. Reed: The Ability to Pay for Medical Care. Publication No. 25, Committee on the Costs of Medical Care.

*Per capita income changes.*—For the purposes of this investigation family income per capita was used as the basis of classifying the households because it was felt that this represented economic status better than the total family income, which takes no account of size of family. It was realized that for strict accuracy a figure taking account not only of the size of the family but also the age and sex of its members, such as “income per adult male unit”, might be better than income per capita. However, previous studies have shown excellent correlation between per capita income and these other derived units. It was felt that the accuracy of the 4-year income record might not be sufficient to justify the more refined calculations.

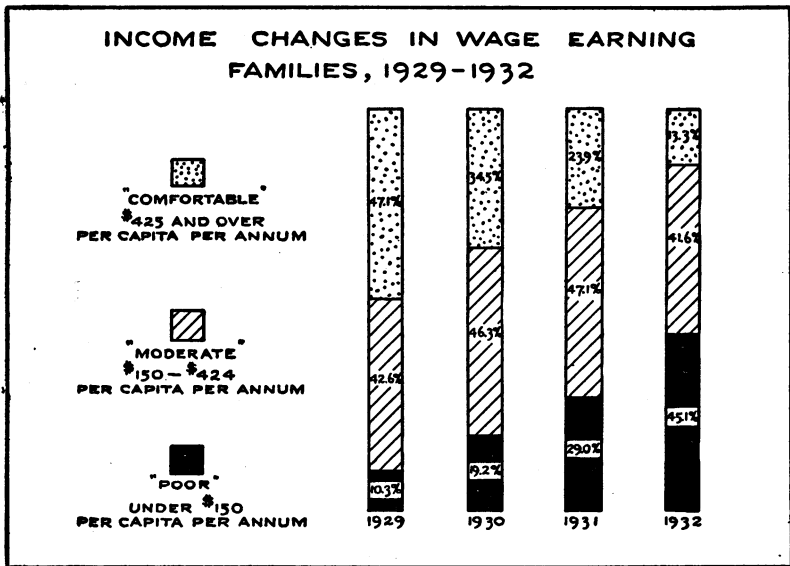


FIGURE 1.—Percentage distribution of the surveyed population according to annual family income per capita for each of the years 1929-32. The population includes 11,330 individuals in 2,586 families in Birmingham, Detroit, and Pittsburgh.

Table 2 and figure 1 show the population grouped according to annual per capita income for the years 1929 to 1932. For convenience in discussion the individual income classes have been combined into three groups and designated as follows:

*Poor:* Under \$150 per capita per year.

*Moderate:* \$150 to \$424 per capita per year.

*Comfortable:* \$425 and over per capita per year.

These designations have no significance other than as convenient labels indicating a rising scale of per capita income.

It will be seen that the “poor” group (income less than \$150 per capita), which constituted only 10 percent of the total in 1929, was 45 percent in 1932, while the “comfortable” group (\$425 or more per

capita) dropped from 47 percent of the total in 1929 to 13 percent in 1932. The percentage in the "moderate" class (\$150 to \$424) did not change greatly. This does not mean that individuals in this group in 1929 suffered no diminution in income during succeeding years, but that as some dropped into the low income group others from the higher class took their places.

TABLE 2.—Distribution of the surveyed population according to annual family income per capita for the years 1929 to 1932, Birmingham, Detroit, Pittsburgh

Annual family income per capita	1929		1930		1931		1932	
	Number of persons	Percentage	Number of persons	Percentage	Number of persons	Percentage	Number of persons	Percentage
<b>"Poor"</b>								
Under \$50.....	123	1.1	338	3.0	657	5.8	1,366	12.1
\$50 to \$99.....	401	3.5	925	8.2	1,426	12.6	2,236	19.7
\$100 to \$149.....	645	5.7	912	8.0	1,197	10.6	1,506	13.3
<b>"Moderate"</b>								
\$150 to \$199.....	726	6.4	1,052	9.3	1,442	12.7	1,812	11.6
\$200 to \$249.....	882	7.8	861	7.6	1,121	9.9	1,178	10.4
\$250 to \$299.....	917	8.1	1,027	9.2	926	8.2	815	7.2
\$300 to \$349.....	1,068	9.4	1,062	9.3	901	7.9	717	6.3
\$350 to \$424.....	1,230	10.9	1,241	10.9	949	8.4	693	6.1
<b>"Comfortable"</b>								
\$425 to \$499.....	1,298	10.6	880	7.8	708	6.3	506	4.5
\$500 to \$749.....	2,390	21.1	1,876	16.5	1,363	12.0	709	6.2
\$750 and over.....	1,748	15.4	1,156	10.2	640	5.6	292	2.6
Total.....	11,330	100.0	11,330	100.0	11,330	100.0	11,330	100.0

The change from one income class to another is better shown in figure 2, where the income history of the three groups of individuals in 1929 is traced through each year to 1932. It is seen that only about one fourth of the individuals in families economically comfortable in 1929 retained that status in 1932, and nearly an equal number had become "poor." Over half of those in moderate circumstances in 1929 had fallen into the "poor" category by 1932. Nine out of ten persons classified as "poor" in 1929 remained in that class throughout the period. Obviously very few persons enjoyed an increasing income during the depression and a very large percentage suffered a drop in income.

Figure 2 suggests a method of classifying the families into groups having different types of economic history during the depression for purposes of comparing illness rates. Two broad groups might be made: (1) Families suffering no material change in income from 1929 to 1932, and (2) families whose income changed between 1929 and 1932. Group 1 can be further divided into (a) comfortable, 1929-32, (b) moderate, 1929-32, and (c) poor, 1929-32. Disregarding the relatively few families whose income rose or oscillated, group 2 could be divided into a large number of groups defined by an economic

status rating and the time when the family experienced that status. For example, we might have families with depression history as follows: (1) Comfortable, 1929; poor, 1930, 1931, 1932; (2) comfortable, 1929, 1930; poor, 1931, 1932; and so on. The number of groups feasible

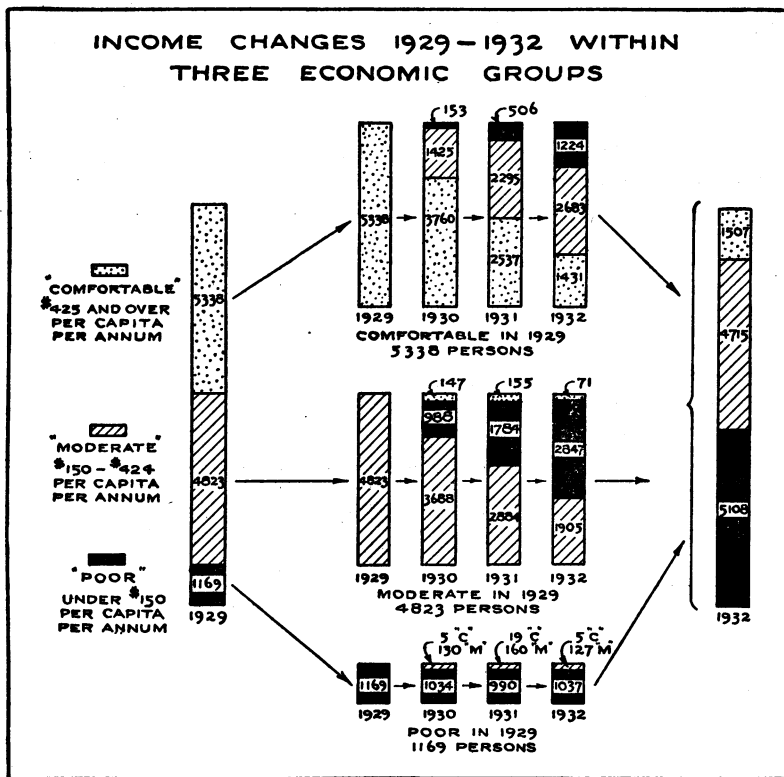


FIGURE 2.—Annual shifts (1930-32) in number of individuals in each of three broad income classes of family income per capita in 1929 (11,330 persons in 2,566 families in Birmingham, Detroit, and Pittsburgh).

The chart is designed to show graphically how families changed from one income class to another during the 3 years following 1929.

Thus, it is seen that of the 5,338 individuals who were "comfortable" (per capita income of \$425 or more) in 1929, 3,760, or 70 percent, had this income in 1930; 2,537, or 48 percent, in 1931; and only 1,431, or 27 percent, were still "comfortable" in 1932. This drop in the number in the "comfortable" group of 1929 was made up of 2,683, or 50 percent, who had dropped to the "moderate" class (\$150-\$424) by 1932 and 1,224, or 23 percent, who had dropped to the "poor" group (under \$150).

In the same way, the history may be followed of the 4,823 individuals in the "moderate" income group in 1929. By 1932, only 1,905, or 40 percent, of these were still in the "moderate" group, 2,847, or 59 percent had fallen into the "poor" group, and only 71, or 1 percent, had risen to the "comfortable" group.

Of the 1,169 who were "poor" in 1929, 127, or 11 percent, had risen to "moderate" circumstances in 1932, and only 5 persons (one family) to "comfortable" circumstances. The other 89 percent remained "poor" in 1932.

to use in a sickness study will obviously depend on the size of the population being studied. In the present report, which covers only some 11,000 individuals, a relatively few groups have been used, which describe the depression history in a manner as specific as



possible without giving too small a population to be significant for statistical study. As other cities are added to the tabulations, depression history groups will be made increasingly specific.

#### ILLNESS AND 1932 INCOME

Inquiry was made about illness from all diseases and accidents, including mild as well as severe cases. What was included as illness was to a considerable extent a matter of what the informant (usually the housewife) remembered and designated as such. Hence the records of disabling cases are probably better measures of real sickness than are the total cases, because the disabling illnesses are more likely to be accurately and completely reported. A case sufficiently severe to be disabling or confine the individual to his bed within the 3 months of the interview is very likely to be remembered, while

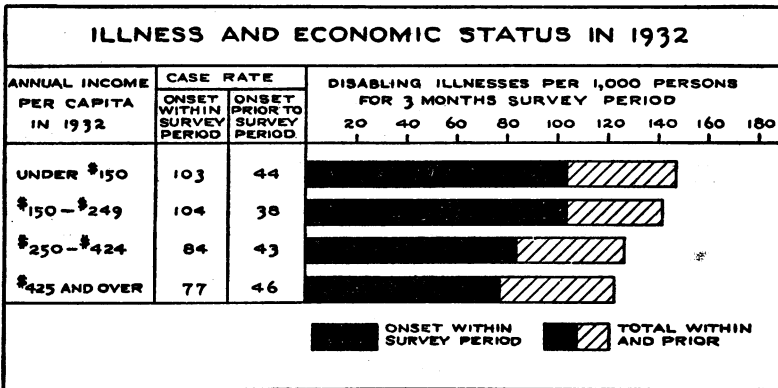


FIGURE 3.—Disabling illness during a 3 months' period in the early spring of 1933 in wage-earning families classified according to income per capita in 1932, in Birmingham, Detroit, and Pittsburgh.

many of the minor ailments are forgotten and are consequently not mentioned to the enumerator.

Illnesses are classified as having (1) onset within the survey period and (2) onset prior to the survey period. Each of these groups is shown as (a) all cases, (b) disabling cases, consisting of those causing inability to carry on their usual activities, and (c) cases in which the patient was confined to bed for 1 or more days. All bed cases are included in the disabling class.

The illness rates are for the 3-month period of the survey and are not reduced to an annual basis. The "survey period" refers to the 3 months prior to the enumerator's visit; it is the period of time for which illness data were recorded.<sup>4</sup>

In table 3 and figure 3 the incidence of illness is shown for four groups of the surveyed population classified according to annual per capita income in 1932 to show the relation between economic status and illness as it was found in 1933. Inspection of the table and graph

<sup>4</sup>See footnote to table 3 for calendar months included, etc.

shows a lower illness rate <sup>5</sup> for the higher income groups, when illnesses with onset within the survey period are considered. Illnesses with onset prior to the survey period (largely chronic cases) show no relation to income. For illnesses within the survey period, the disabling case rate among the two lower income groups (under \$250) is 35 percent higher and the bed case rate 47 percent higher than among the group having an annual family income per capita of \$425 and over. The poor in 1932 in the surveyed group are obviously subject to more illness than their more fortunate neighbors in relatively comfortable circumstances.

TABLE 3.—*Illness and 1932 income*

Incidence of illness as related to 1932 family income per capita in canvassed white families in Birmingham, Detroit, and Pittsburgh. The group comprised 2,566 families, including 11,330 individuals

Annual family income per capita in 1932	Illness rate per 1,000 persons for 3 months' survey period <sup>1</sup>						Population observed
	Onset within period			Onset prior to period			
	Total	Disabling	Bed	Total	Disabling	Bed	
Under \$150.....	151	103	94	75	44	32	5, 108
\$150 to \$249.....	143	104	94	66	38	31	2, 490
\$250 to \$424.....	136	84	74	70	43	33	2, 225
\$425 and over.....	127	77	64	85	46	32	1, 507

<sup>1</sup> The survey period refers to the 3 months prior to the enumerator's visit. The canvass in each city required from 3 to 4 weeks. The dates of the canvass were slightly different in each city but were between Mar. 20, 1933, and May 15, 1933, for all 3 cities.

It may be argued, however, that a large percentage of the individuals who were poor in 1932 were the chronically poor, the "unemployables" who were perhaps in a state of poverty *because* of sickness and that this group with a very high illness rate raises the average rate of the poor in 1932. To investigate this point, further study of the group was made.

#### ILLNESS AND INCOME CHANGE

In this analysis the individuals were divided into six categories according to economic status in 1929 and 1932, as follows:

I. Individuals experiencing lowered family income per capita between 1929 and 1932 were classified as—

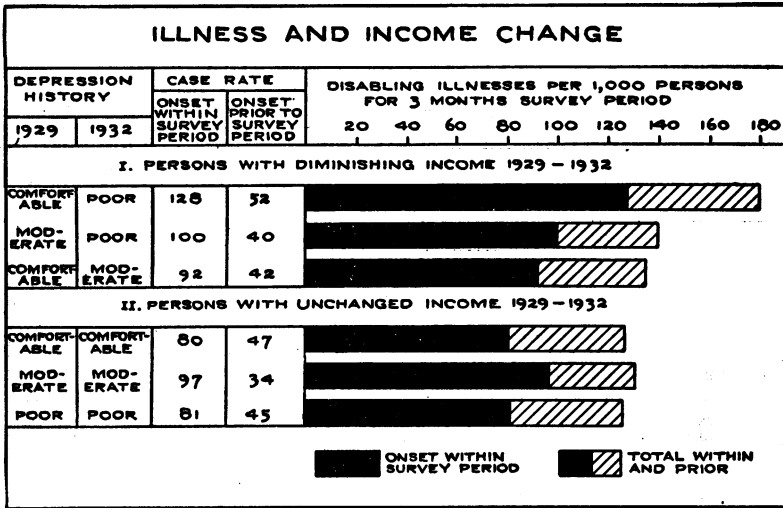
- (1) Comfortable in 1929 and poor in 1932;
- (2) Moderate in 1929 and poor in 1932;
- (3) Comfortable in 1929 and moderate in 1932.

<sup>5</sup> Crude rates in vital statistics often give rise to erroneous conclusions. Three possible sources of error in the present study occur to the writers: (1) Variation in age distribution in the different income and "depression history" groups, (2) variation in family size in these groups (illnesses may not be completely reported in large families), and (3) possible concentration of sickly individuals in the lower income groups, who were the first to feel the effects of the depression because of the handicap of a tendency to sickness. Preliminary tabulations have been made to investigate these possible sources of error and so far no adjustments found necessary have changed the trends observed in the crude rates. Later papers including more cities will present data on these factors.

II. Individuals who had not experienced lowered family income between 1929 and 1932 were classified as—

- (1) Comfortable in 1929 and 1932;
- (2) Moderate in 1929 and 1932;
- (3) Poor in 1929 and 1932.

The results are given in table 4 and figure 4. Here we see a significant difference between the illness rate of group I (102 disabling) and group II (87 disabling). The highest illness rate in group I is ex-



Comfortable.... \$425 and over per capita per year.

Moderate..... \$150-\$424 per capita per year.

Poor..... Under \$150 per capita per year.

FIGURE 4.—Disabling illness during a 3 months' period in the early spring of 1933 in wage-earning families classified according to change in per capita income 1929-32, in Birmingham, Detroit, and Pittsburgh.

perienced by individuals whose fortunes had suffered the greatest change, namely, the group "comfortable in 1929 and poor in 1932." This group, with a rate of 128 per 1,000, showed an incidence of disabling illness 60 percent higher than the rate (80) of their more fortunate neighbors who were equal in status in 1929 but suffered no drop in income by 1932, that is, the "comfortable in 1929 and 1932" group. The group which had dropped from comfortable to moderate showed a 15 percent higher disabling illness rate than the comfortable group which had experienced no drop in income. Those families which had dropped from moderate to poor show about the same illness rate as the group which had been in moderate circumstances throughout the 4 years.

TABLE 4.—*Illness and change in income*

Incidence of illness among families classified according to change in the annual per capita income from 1929 to 1932, Detroit, Pittsburgh, Birmingham

Depression history <sup>1</sup>		Case rate per 1,000 persons for 3 months' survey period <sup>2</sup>						Population observed
1929	1932	Onset within period			Onset prior to period			
		Total	Disabling	Bed	Total	Disabling	Bed	
<b>I. FAMILIES WITH DIMINISHED INCOME, 1929-1932</b>								
Comfortable.....	Poor.....	189	128	114	88	52	39	1,224
Moderate.....	Poor.....	141	100	93	63	40	28	2,847
Comfortable.....	Moderate.....	142	92	81	75	42	33	2,683
Total.....		150	102	92	72	43	32	6,784
<b>II. FAMILIES WITH NO MATERIAL CHANGE IN INCOME, 1929-1932</b>								
Comfortable.....	Comfortable.....	130	80	66	87	47	33	1,431
Moderate.....	Moderate.....	136	97	88	56	34	27	1,905
Poor.....	Poor.....	134	81	76	91	45	35	1,037
Total.....		133	87	78	75	41	31	4,373

<sup>1</sup> Comfortable—\$425 and over per capita per year.

Moderate—\$150 to \$424 per capita per year.

Poor—under \$150 per capita per year.

<sup>2</sup> See footnote to table 3.

The same trends are observed for the total illnesses, onset within the survey period, and even the addition of the cases with onset prior to the survey period (largely chronic) does not obscure the fact that a relatively large drop in economic status appears to be associated with a high illness rate.

## UNEMPLOYMENT AND ILLNESS

In table 5 and figure 5 is shown the relation between unemployment and the illness rate. The surveyed group has been divided into 3 classes of individuals, those from families having (1) no employed workers, (2) 1 or more part-time workers but no full-time workers, and (3) 1 or more full-time workers with or without additional part-time workers. As might be expected from the relation between sickness and 1932 income, the illness rate is highest in the families having no employed workers (122 disabling cases per 1,000) and lowest in the households having full-time workers (88 per 1,000). The group with no employed workers has a higher illness rate than the group with annual per capita income under \$150 (table 3)—122 as against 103 disabling cases per 1,000 persons.

TABLE 5.—*Illness and unemployment*

Incidence of illness among families classified according to the number of employed workers during 1932, Birmingham, Detroit, Pittsburgh

Employed workers in the family	Case rate per 1,000 persons for 3 months' survey period <sup>1</sup>						Population observed
	Onset within period			Onset prior to period			
	Total	Disabling	Bed	Total	Disabling	Bed	
No employed workers.....	160	122	114	91	55	40	1,402
Part-time workers (1 or more; no full-time).....	157	98	89	70	40	30	4,561
Full-time workers (1 or more; 0 or more part-time).....	127	88	77	72	42	32	5,367

<sup>1</sup> See footnote to table 3.

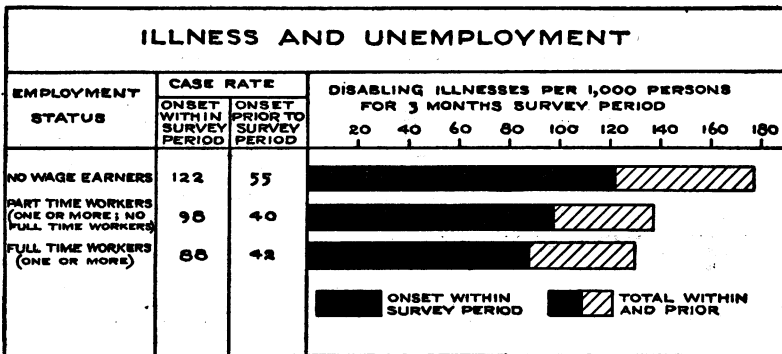


FIGURE 5.—Disabling illness during a 3 months' period in the early spring of 1933 in families classified according to the employment of wage-earning members, in Birmingham, Detroit, and Pittsburgh.

#### SUMMARY

Records of illness in 1933 and economic history from 1929 to 1932 have been collected from more than 12,000 families in 8 large cities, a group of coal-mining communities, and a group of cotton-mill villages. This paper presents preliminary results of the survey in three cities—Birmingham, Detroit, and Pittsburgh. This group comprised 2,566 families and included 11,330 individuals.

The results show a higher incidence of disabling illness among individuals in the lower-income classes in 1932 than among individuals with higher incomes. The highest illness rate is reported by a group which was in reasonably comfortable circumstances in 1929 but which had dropped to comparative poverty by 1932; their rate is 60 percent higher than that of their more fortunate neighbors who were equal in economic status in 1929 but suffered no drop in income by 1932. The group of individuals who may be described as the "chronically poor", that is, individuals who were in a condition of poverty even in 1929, showed a relatively low sickness rate as compared with the group which

had fallen into straitened circumstances as a result of the economic depression. The rate of disabling illness reported among individuals from families of the unemployed was 39 percent higher than that of the group having full-time wage earners and 25 percent higher than that of the group containing part-time but no full-time workers.

The foregoing findings are generally true for the surveyed group in each of the cities as well as for the total of the three cities.

As regards the significance of the findings, the writers have purposely refrained from drawing conclusions as to their broad implications and the reader is cautioned to exercise similar restraint. For example, how large a proportion of the entire wage-earning population in urban areas in the United States has suffered increased illness obviously cannot be estimated from the experience recorded in the samples surveyed in three cities only. Nor is it possible to suggest any specific interpretations of increased illness rates in terms of impaired vitality until the nature of the sickness experienced is considered. Conclusions and interpretations of this kind should await more complete analysis of the entire volume of data collected.

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### COURT DECISION RELATING TO PUBLIC HEALTH

*Narcotic drug law construed.*—(California District Court of Appeal, 2d Dist.; *People v. Randolph*, 23 P. (2d) 777; decided July 6, 1933.) The defendant was charged with and convicted of violating the statute relating to narcotic drugs by having in his possession a preparation of morphine containing more than one-fourth grain of morphine to the avoirdupois ounce. The act made it unlawful for any person to have in his possession any opium except on the written order or prescription of a physician, dentist, or veterinary surgeon licensed to practice in the State (Deering's Gen. Laws, 1931, act 5323). In upholding the conviction, the court of appeal said:

The evidence shows that four bindles of morphine were found sewed in the lining of appellant's coat. Appellant denies having any knowledge of its presence in his coat and claimed to have purchased the coat secondhand in some place on Main Street sometime before. \* \* \* Such defense merely created a conflict with the prima facie case made out by the people showing that such morphine was in plaintiff's possession. Neither intent nor knowledge is an element of this offense. The mere possession is a violation of the act. *People v. Le Baron*, 92 Cal. App. 550, 268 P. 651, 269 P. 476. The only perfect defense is a valid prescription under the act. Any other defense is for the consideration of the judge or jury, as the case may be; and the defense made having been rejected by the trial court, nothing remains to be considered on appeal in view of the fact of possession which the court must have found.

**DEATHS DURING WEEK ENDED SEPTEMBER 23, 1933**

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Sept. 23, 1933	Correspond- ing week 1932
<b>Data from 85 large cities of the United States:</b>		
Total deaths.....	6,992	6,741
Deaths per 1,000 population, annual basis.....	9.8	9.6
Deaths under 1 year of age.....	588	566
Deaths under 1 year of age per 1,000 estimated live births (81 cities).....	50	47
Deaths per 1,000 population, annual basis, first 38 weeks of year.....	10.9	11.2
<b>Data from industrial insurance companies:</b>		
Policies in force.....	67,704,198	70,529,728
Number of death claims.....	10,972	10,919
Death claims per 1,000 policies in force, annual rate.....	8.5	8.1
Death claims per 1,000 policies, first 38 weeks of year, annual rate.....	9.9	9.7

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended September 30, 1933, and October 1, 1932

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Sept. 30, 1933, and Oct. 1, 1932

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932
<b>New England States:</b>								
Maine.....	1	3	5	2	3	1	0	0
New Hampshire.....		1					0	0
Vermont.....		1			2	1	0	0
Massachusetts.....	21	18		2	15	53	0	3
Rhode Island.....	2	5			2	1	0	0
Connecticut.....	4	5	1		1	2	0	0
<b>Middle Atlantic States:</b>								
New York.....	41	41	17	13	41	90	4	4
New Jersey.....	22	9	10	4	15	41	0	1
Pennsylvania.....	52	94			23	64	8	7
<b>East North Central States:</b>								
Ohio <sup>1</sup> .....	57	75	60	4	15	37	1	1
Indiana.....	29	75	33	8	2	3	3	8
Illinois <sup>1</sup> .....	32	83	15	7	15	14	2	3
Michigan.....	19	22	2	1	34	41	1	3
Wisconsin.....	4	14	20	16	33	49	3	1
<b>West North Central States:</b>								
Minnesota.....	4	11		3	5	22	0	2
Iowa <sup>1</sup> .....	7	6			3	1	0	1
Missouri <sup>1</sup> .....	51	67	1		4		2	3
North Dakota.....	3	2			15	10	0	0
South Dakota.....	2	1			1	2	0	0
Nebraska.....	5	21				5	0	0
Kansas.....	5	17	3	1	3	2	3	0
<b>South Atlantic States:</b>								
Delaware.....	1	2					0	0
Maryland <sup>1</sup> .....	29	10	10	3	1	2	1	0
District of Columbia.....	6	3			1	2	0	0
Virginia.....	98	64			8	18	0	0
West Virginia.....	62	67	7	6	1	19	1	0
North Carolina <sup>1</sup> .....	117	75	46	24	23	24	0	1
South Carolina <sup>1</sup> .....	31	17	142	190	22	7	0	0
Georgia <sup>1</sup> .....	53	48		32	10	11	2	1
Florida <sup>1</sup> .....	15	11		1			0	0
<b>East South Central States:</b>								
Kentucky.....	116	74				47	1	0
Tennessee.....	77	65	11	15	14		1	2
Alabama <sup>1</sup> .....	97	94	23	10	5	2	2	1
Mississippi <sup>1</sup> .....	36	35					0	2

See footnotes at end of table.



*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Sept. 30, 1933, and Oct. 1, 1932—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932
<b>West South Central States:</b>								
Arkansas.....	25	37	1	18	17	2	0	0
Louisiana.....	28	24	6	10	2	5	2	1
Oklahoma <sup>1</sup> .....	52	68	12	13	2	—	0	0
Texas <sup>2</sup> .....	108	120	83	43	31	3	2	0
<b>Mountain States:</b>								
Montana.....	2	1	11	16	1	45	0	0
Idaho.....	—	5	1	—	—	—	0	0
Wyoming.....	—	1	3	—	2	1	0	1
Colorado.....	1	7	—	—	4	5	0	2
New Mexico.....	10	8	—	—	4	2	0	0
Arizona.....	2	2	2	—	4	2	0	0
Utah <sup>1</sup> .....	1	—	1	—	7	1	0	1
<b>Pacific States:</b>								
Washington.....	3	8	—	3	30	6	1	0
Oregon.....	3	2	19	35	9	14	1	0
California.....	31	47	35	146	71	25	1	3
<b>Total.....</b>	<b>1,365</b>	<b>1,466</b>	<b>570</b>	<b>626</b>	<b>499</b>	<b>682</b>	<b>37</b>	<b>52</b>

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932
<b>New England States:</b>								
Maine.....	0	1	4	11	0	0	11	7
New Hampshire.....	2	0	11	4	0	0	0	0
Vermont.....	3	0	5	3	0	0	0	0
Massachusetts.....	13	2	86	133	0	0	6	8
Rhode Island.....	2	0	15	14	0	0	0	1
Connecticut.....	7	1	26	18	0	0	1	8
<b>Middle Atlantic States:</b>								
New York.....	77	16	148	161	0	0	31	26
New Jersey.....	13	22	52	56	0	0	8	11
Pennsylvania.....	30	110	168	238	0	0	70	71
<b>East North Central States:</b>								
Ohio <sup>1</sup> .....	43	3	305	227	0	4	56	90
Indiana.....	1	1	103	88	1	0	20	21
Illinois <sup>1</sup> .....	15	8	133	167	0	0	27	37
Michigan.....	8	8	128	113	0	0	10	22
Wisconsin.....	7	2	28	28	1	1	1	8
<b>West North Central States:</b>								
Minnesota.....	23	9	16	29	0	0	2	4
Iowa <sup>1</sup> .....	2	2	42	33	0	7	14	41
Missouri <sup>1</sup> .....	1	0	51	59	7	0	12	18
North Dakota.....	5	2	12	9	0	0	2	13
South Dakota.....	3	0	7	6	1	0	2	1
Nebraska.....	1	0	8	16	0	0	0	0
Kansas.....	1	2	54	61	0	0	10	11
<b>South Atlantic States:</b>								
Delaware.....	0	0	11	3	0	0	3	2
Maryland <sup>1</sup> .....	3	0	52	34	0	0	23	20
District of Columbia.....	1	2	15	8	0	0	7	1
Virginia.....	2	2	102	58	0	0	20	29
West Virginia.....	4	4	73	57	1	3	47	53
North Carolina <sup>1</sup> .....	3	0	113	70	0	0	16	7
South Carolina <sup>1</sup> .....	2	0	10	8	0	0	31	12
Georgia <sup>1</sup> .....	0	0	20	29	0	0	17	37
Florida <sup>1</sup> .....	1	0	—	2	0	0	1	1
<b>East South Central States:</b>								
Kentucky.....	3	1	138	71	0	0	47	51
Tennessee.....	4	0	71	66	0	3	43	36
Alabama <sup>1</sup> .....	2	1	52	57	1	0	27	24
Mississippi <sup>1</sup> .....	0	1	18	7	0	0	8	12

See footnote at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Sept. 30, 1933, and Oct. 1, 1933—Continued

Division and State	Polio-myelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932	Week ended Sept. 30, 1933	Week ended Oct. 1, 1932
<b>West South Central States:</b>								
Arkansas.....	0	0	13	11	0	0	9	12
Louisiana.....	1	2	9	6	0	0	19	17
Oklahoma <sup>4</sup> .....	4	1	12	19	1	0	55	40
Texas <sup>1</sup> .....	3	3	40	51	5	6	74	29
<b>Mountain States:</b>								
Montana.....	0	1	9	9	0	3	6	5
Idaho.....	0	0	5	2	2	0	0	2
Wyoming.....	1	1	0	6	0	2	0	3
Colorado.....	0	0	13	54	0	2	11	8
New Mexico.....	1	0	15	8	1	0	23	19
Arizona.....	1	0	13	14	0	0	8	7
Utah <sup>2</sup> .....	2	0	5	2	0	0	2	1
<b>Pacific States:</b>								
Washington.....	14	3	13	17	6	5	3	6
Oregon.....	2	1	22	8	0	0	7	1
California.....	5	5	118	51	12	11	9	17
<b>Total.....</b>	<b>316</b>	<b>217</b>	<b>2,364</b>	<b>2,232</b>	<b>39</b>	<b>47</b>	<b>799</b>	<b>850</b>

<sup>1</sup> New York City only.

<sup>2</sup> Typhus fever, week ended Sept. 30, 1933, 78 cases, as follows: Ohio, 1; Illinois, 1; North Carolina, 2; South Carolina, 2; Georgia, 19; Florida, 6; Alabama, 37; Texas, 10.

<sup>3</sup> Week ended earlier than Saturday.

<sup>4</sup> Exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week.

State	Menin-gococ-cus menin-gitis	Diph-theria	Influ-enza	Malaria	Measles	Pol-lagra	Polio-my-e-litis	Scarlet fever	Small-pox	Ty-phoid fever
<i>August 1933</i>										
Alabama.....	1	113	33	599	36	37	1	64	1	128
Georgia.....	3	130	61	604	132	32	5	47	1	153
Illinois.....	19	57	24	45	68	2	54	377	3	150
Louisiana.....	4	59	24	553	17	30	6	44	6	185
Maine.....	1	1	1		8		9	16	0	13
Oregon.....	2	27	7		74		5	35	16	16
Texas.....	6	208	200	1,525		54	9	95		312
Virginia.....	3	92	96	33	59	11	6	97	0	147

<i>August 1933</i>		German measles:	Cases	Mumps—Continued.	Cases
<b>Anthrax:</b>	Cases	Illinois.....	13	Louisiana.....	5
Louisiana.....	1	Maine.....	6	Maine.....	10
<b>Chicken pox:</b>		<b>Hookworm disease:</b>		Oregon.....	14
Alabama.....	2	Georgia.....	90	Virginia.....	8
Georgia.....	1	Illinois.....	12	<b>Ophthalmia neonatorum:</b>	
Illinois.....	105	Louisiana.....	19	Alabama.....	1
Maine.....	30	<b>Impetigo contagiosa:</b>		Illinois.....	3
Oregon.....	29	Illinois.....	3	<b>Paratyphoid fever:</b>	
Virginia.....	29	Oregon.....	16	Georgia.....	8
<b>Conjunctivitis:</b>		<b>Lead poisoning:</b>		Maine.....	1
Georgia.....	8	Illinois.....	2	Oregon.....	3
<b>Dengue:</b>		<b>Lethargic encephalitis:</b>		Texas.....	26
Alabama.....	2	Alabama.....	2	Virginia.....	5
Georgia.....	1	Illinois.....	24	<b>Rabies in animals:</b>	
<b>Diarrhea and dysentery:</b>		Maine.....	2	Illinois.....	20
Virginia.....	481	Virginia.....	2	Louisiana.....	10
<b>Dysentery:</b>		<b>Mumps:</b>		Maine.....	6
Georgia.....	20	Alabama.....	10	<b>Rabies in man:</b>	
Illinois (amebic).....	13	Georgia.....	11	Alabama.....	1
Illinois (bacillary).....	24	Illinois.....	122	Illinois.....	1
Louisiana.....	9				

Cases	Tetanus—Continued.	Cases	Undulant fever:	Cases
Rocky Mountain spotted fever:	Louisiana.....	6	Alabama.....	1
Alabama.....	Maine.....	2	Georgia.....	5
Georgia.....	Virginia.....	1	Illinois.....	7
Virginia.....	Trachoma:		Louisiana.....	1
Scabies:	Georgia.....	3	Maine.....	1
Oregon.....	Illinois.....	5	Virginia.....	4
Septic sore throat:	Tularaemia:		Vincent's angina:	
Georgia.....	Georgia.....	3	Illinois.....	30
Illinois.....	Illinois.....	2	Oregon.....	4
Louisiana.....	Louisiana.....	3	Whooping cough:	
Oregon.....	Virginia.....	4	Alabama.....	80
Virginia.....	Typhus fever:		Georgia.....	54
Tetanus:	Alabama.....	87	Illinois.....	663
Alabama.....	Georgia.....	83	Louisiana.....	25
Illinois.....	Illinois.....	1	Maine.....	75
	Virginia.....	4	Oregon.....	26
			Virginia.....	127

### LETHARGIC ENCEPHALITIS, ST. LOUIS, MO.

From July 1 to October 1, 1933, 504 cases of lethargic encephalitis were reported in the city of St. Louis with 105 deaths. In the county of St. Louis during this period there were 509 cases with 81 deaths. In St. Clair and Madison Counties, Illinois, across the Mississippi River, 15 cases of lethargic encephalitis and 1 death were reported.

### WEEKLY REPORTS FROM CITIES

City reports for week ended Sept. 23, 1933

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
<b>Maine:</b>											
Portland.....	0		0	0	2	1	0	0	0	6	17
<b>New Hampshire:</b>											
Concord.....	0		0	0	0	0	0	0	0	0	8
Nashua.....	0		0	0	0	1	0	0	0	0	0
<b>Vermont:</b>											
Barre.....	0		0	0	0	0	0	0	0	0	3
Burlington.....	0		0	0	0	0	0	0	0	0	10
<b>Massachusetts:</b>											
Boston.....	3		0	4	13	27	0	9	1	20	180
Fall River.....	0		0	0	1	1	0	1	0	17	19
Springfield.....	0		0	0	0	0	0	1	0	3	22
Worcester.....	0		0	3	3	9	0	4	0	12	44
<b>Rhode Island:</b>											
Pawtucket.....	1		0	0	0	2	0	0	0	0	10
Providence.....	1		0	1	8	6	0	4	0	25	64
<b>Connecticut:</b>											
Bridgeport.....	0		0	0	0	2	0	3	0	0	31
New Haven.....	0	1	0	0	2	0	0	0	0	4	30
<b>New York:</b>											
Buffalo.....	5		1	3	7	7	0	6	0	19	123
New York.....	15	6	3	10	71	29	0	72	20	131	1,191
Syracuse.....	0		0	1	0	4	0	1	0	16	49
<b>New Jersey:</b>											
Camden.....	4		0	1	1	7	0	1	1	0	31
Newark.....	0	3	0	3	5	4	0	4	0	24	106
Trenton.....	0		0	1	1	0	0	2	0	1	20
<b>Pennsylvania:</b>											
Philadelphia.....	0	2	2	7	11	24	0	27	3	16	372
Pittsburgh.....	11	1	1	0	6	12	0	3	3	38	120
Reading.....	0		0	0	2	1	0	0	0	6	22
<b>Ohio:</b>											
Cincinnati.....	3		0	6	4	5	0	1	3	26	126
Cleveland.....	0	27	0	1	5	35	0	6	1	28	153
Columbus.....	0		0	0	3	12	0	3	0	2	67
Toledo.....	0		0	0	0	9	0	4	0	3	66
<b>Indiana:</b>											
Fort Wayne.....	0		0	0	4	3	0	0	1	0	23
Indianapolis.....	2		0	0	5	6	0	3	1	4	-----
South Bend.....	0		0	0	1	3	0	1	1	0	13
Terre Haute.....	1		0	0	0	0	0	0	1	0	13

City reports for week ended Sept. 23, 1933—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
<b>Illinois:</b>											
Chicago.....	2	2	0	2	24	46	0	32	2	56	612
Springfield.....	0		0	0	2	1	0	0	1	0	25
<b>Michigan:</b>											
Detroit.....	14	2	0	4	7	36	0	9	5	90	193
Flint.....	0		0	0	0	1	0	1	2	0	24
Grand Rapids.....	0		0	1	0	1	0	2	0	11	26
<b>Wisconsin:</b>											
Kenosha.....	0		0	1	0	0	0	0	0	0	3
Madison.....	0		0	1	0	0	0	0	0	3	5
Milwaukee.....	0		0	1	2	6	0	2	0	64	86
Racine.....	0		0	0	1	0	0	1	0	14	8
Superior.....	0		0	0	0	0	0	0	0	3	12
<b>Minnesota:</b>											
Duluth.....	0		0	1	0	8	0	0	1	6	16
Minneapolis.....	2		0	0	3	3	0	1	0	8	79
St. Paul.....	1		0	1	2	1	0	3	0	4	53
<b>Iowa:</b>											
Des Moines.....	3		0	0	0	9	0	0	0	0	26
Sioux City.....	0		0	0	0	2	0	0	0	0	1
Waterloo.....	0			1		0	0	0	0	0	
<b>Missouri:</b>											
Kansas City.....	1		0	0	4	1	0	8	1	6	100
St. Joseph.....	1		0	0	2	0	0	0	1	0	39
St. Louis.....	16		0	4	2	2	0	6	5	15	195
<b>North Dakota:</b>											
Fargo.....	0		0	0	0	0	0	0	0	1	5
Grand Forks.....	0		0	0	0	0	0	0	0	0	
<b>South Dakota:</b>											
Aberdeen.....	0		0	0	0	0	0	0	0	0	
<b>Nebraska:</b>											
Omaha.....	0		0	1	4	4	0	0	0	4	51
<b>Kansas:</b>											
Topeka.....	0		0	0	2	1	0	0	0	6	14
Wichita.....	1		0	0	2	2	0	1	1	3	14
<b>Delaware:</b>											
Wilmington.....	0		0	0	0	3	0	0	0	5	28
<b>Maryland:</b>											
Baltimore.....	0	4	1	0	15	11	0	16	2	31	184
Cumberland.....	4		0	1	0	2	0	0	0	0	9
Frederick.....	0		0	0	1	1	0	0	0	0	5
<b>District of Columbia:</b>											
Washington.....	4		0	2	3	9	0	11	5	7	126
<b>Virginia:</b>											
Lynchburg.....	3		0	0	0	0	0	0	1	2	4
Richmond.....	5		0	1	4	4	0	1	1	1	43
Roanoke.....	0		0	0	2	1	0	1	0	3	18
<b>West Virginia:</b>											
Charleston.....	1		0	0	1	0	0	4		1	17
Huntington.....	5		0	0	0	1	0	0	0	0	
Wheeling.....	0		0	0	0	3	0	0	1	6	9
<b>North Carolina:</b>											
Wilmington.....	3		0	0	0	0	0	0	0	0	12
Winston-Salem.....	10		0	0	0	1	0	1	0	2	8
<b>South Carolina:</b>											
Charleston.....	1	6	0	0	1	0	0	2	2	0	21
Columbia.....											
Greenville.....	0		0	0	0	3	0	0	0	2	4
<b>Georgia:</b>											
Atlanta.....	6		0	0	5	3	0	1	3	3	82
Brunswick.....	0		0	0	0	0	0	0	0	0	7
Savannah.....	0	10	0	7	4	1	0	0	0	0	31
<b>Florida:</b>											
Tampa.....	1		0	0	0	0	0	1	0	0	17
<b>Kentucky:</b>											
Ashland.....	1		0	0	0	2	0	0	0	7	
Lexington.....	0		0	0	1	2	0	0	0	0	15
Louisville.....	2		0	1	4	5	0	0	2	6	60
<b>Tennessee:</b>											
Memphis.....	5		0	1	5	5	0	6	0	3	98
Nashville.....	2		0	0	0	5	0	2	0	7	44

## City reports for week ended Sept. 23, 1933—Continued

State and city	Diph- theria cases	Influenza		Mea- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
<b>Alabama:</b>											
Birmingham.....	9		0	5	2	0	0	1	2	1	52
Mobile.....	3		1	0	1	0	0	4	4	0	28
Montgomery.....	2		0	0	0	2	0	0	0	2	
<b>Arkansas:</b>											
Fort Smith.....	1			0		1	0		0	0	
Little Rock.....	1		0	4	4	1	0	2	0	0	6
<b>Louisiana:</b>											
New Orleans.....	6	1	0	0	10	9	0	7	1	0	147
Shreveport.....	0		0	0	3	1	0	1	1	1	26
<b>Oklahoma:</b>											
Tulsa.....	1			0		2	0		0	1	
<b>Texas:</b>											
Dallas.....	11		0	0	3	6	0	4	2		53
Fort Worth.....	2		0	0	2	2	0	1	2	0	28
Galveston.....	0		0	0	0	0	0	0	0	0	6
Houston.....	7		0	0	0	2	0	2	0	0	64
San Antonio.....	1		0	0	2	3	0	7	1	1	55
<b>Montana:</b>											
Billings.....	4		0	0	0	0	0	0	0	0	6
Great Falls.....	0		0	0	1	0	0	0	0	0	12
Helena.....	0		0	1	0	0	0	0	0	0	3
Missoula.....	0		0	0	0	2	0	0	2	0	6
<b>Idaho:</b>											
Boise.....	0		0	0	0	4	0	0	0	0	6
<b>Colorado:</b>											
Denver.....	4		0	2	5	5	0	5	4	10	78
Pueblo.....	0		0	0	0	3	0	0	2	3	8
<b>New Mexico:</b>											
Albuquerque.....	0		0	0	0	0	0	3	5	2	14
<b>Utah:</b>											
Salt Lake City..	1		0	1	1	6	0	0	0	4	21
<b>Nevada:</b>											
Reno.....	0		0	0	0	0	0	0	0	0	3
<b>Washington:</b>											
Seattle.....	0		0	0	2	3	0	4	0	18	83
Spokane.....	0	1	1	6	2	0	0	0	0	0	25
Tacoma.....	0		0	0	0	3	0	0	0	4	18
<b>Oregon:</b>											
Portland.....	2		0	1	4	8	1	2	0	2	63
Salem.....	0		0	0	0	1	0	0	0	0	
<b>California:</b>											
Los Angeles.....	16	17	0	3	6	32	2	22	0	26	268
Sacramento.....	2		0	0	1	1	1	2	1	2	14
San Francisco.....	2	4	0	0	7	1	0	12	0	11	156

<sup>1</sup> Nonresident.

City reports for week ended Sept. 23, 1933—Continued

State and city	Meningococcus meningitis		Polio- mye- litis cases	State and city	Meningococcus meningitis		Polio- mye- litis cases
	Cases	Deaths			Cases	Deaths	
Maine:				Missouri:			
Portland.....	0	0	4	St. Louis.....	0	0	2
Massachusetts:				North Dakota:			
Boston.....	0	0	5	Fargo.....	0	0	2
Springfield.....	0	0	1	Maryland:			
Rhode Island:				Baltimore.....	0	0	1
Providence.....	0	0	1	Cumberland.....	0	0	1
New York:				District of Columbia:			
New York.....	0	2	43	Washington.....	1	1	1
Syracuse.....	0	0	3	Georgia:			
New Jersey:				Atlanta.....	1	0	0
Newark.....	0	0	5	Tennessee:			
Pennsylvania:				Nashville.....	0	0	1
Pittsburgh.....	0	0	5	Texas:			
Ohio:				Dallas.....	0	1	1
Cincinnati.....	0	0	2	Montana:			
Cleveland.....	0	0	13	Great Falls.....	0	0	1
Columbus.....	1	1	0	Colorado:			
Indiana:				Denver.....	1	1	0
Indianapolis.....	1	1	0	Utah:			
Illinois:				Salt Lake City.....	0	0	1
Chicago.....	1	1	8	Washington:			
Michigan:				Seattle.....	0	1	4
Detroit.....	0	0	2	Oregon:			
Wisconsin:				Portland.....	0	0	1
Milwaukee.....	0	0	1	California:			
Superior.....	0	0	1	Los Angeles.....	0	1	2
Minnesota:							
Duluth.....	0	0	3				
Minneapolis.....	0	0	17				
St. Paul.....	0	0	2				

*Lethargic encephalitis*.—Cases: New York City, 8; Pittsburgh, Pa., 1; Cleveland, 6; Columbus, Ohio, 1; Chicago, 1; Springfield, Ill., 1; Detroit, 1; Grand Rapids, Mich., 4; St. Paul, 1; Sioux City, Iowa, 1; Kansas City, Mo., 8; St. Joseph, 2; St. Louis, 81; Omaha, 8; Winston-Salem, N.C., 1; Louisville, 6; Memphis, 2; Albuquerque, N.Mex., 1; Salt Lake City, 1; Seattle, 1.

*Pellagra*.—Cases: Baltimore, 1; Charleston, S.C., 1; Memphis, 2; Montgomery, Ala., 1; Brunswick, Ga., 1.

*Typhus fever*.—Cases: Charleston, S.C., 1; Mobile, 1; Montgomery, Ala., 2.

*Rabies in man*.—Deaths: Boston, 1.

## FOREIGN AND INSULAR

### CANADA

*Quebec Province—Communicable diseases—2 weeks ended September 23, 1933.*—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the 2 weeks ended September 23, 1933, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	1	Ophthalmia neonatorum.....	1
Chicken pox.....	28	Poliomyelitis.....	13
Diphtheria.....	32	Scarlet fever.....	75
Erysipelas.....	7	Tuberculosis.....	158
German measles.....	3	Typhoid fever.....	92
Measles.....	44	Whooping cough.....	126

### CZECHOSLOVAKIA

*Communicable diseases—July 1933.*—During the month of July 1933 certain communicable diseases were reported in Czechoslovakia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	11	1	Paratyphoid fever.....	16	-----
Cerebrospinal meningitis.....	4	3	Poliomyelitis.....	12	3
Chicken pox.....	146	-----	Puerperal fever.....	29	17
Diphtheria.....	1,512	112	Scarlet fever.....	1,646	18
Dysentery.....	6	3	Trachoma.....	112	-----
Influenza.....	28	2	Typhoid fever.....	355	29
Lethargic encephalitis.....	4	3	Typhus fever.....	6	-----
Malaria.....	229	-----			

*Vital statistics—1932.*—The following figures have been published for births, deaths, and marriages in Czechoslovakia during the year 1932:

Population (estimated, midyear).....	14,907,068	Death rate per 1,000 population.....	14.1
Number of births.....	312,351	Infant mortality rate per 1,000 live births.....	137.7
Birth rate per 1,000 population.....	21.0	Number of marriages.....	127,593
Number of stillbirths.....	7,032		
Number of deaths.....	210,254		

Cases of certain diseases, with deaths, were reported in Czechoslovakia during the year 1932 as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Cerebrospinal meningitis.....	112	40	Scarlet fever.....	22,204	474
Diphtheria.....	31,882	2,548	Trachoma.....	1,668	-----
Diseases of heart and arteries.....	-----	24,140	Tuberculosis, pulmonary.....	-----	19,605
Influenza.....	-----	1,215	Tuberculosis, other forms.....	-----	22,275
Measles.....	699	-----	Typhoid and paratyphoid fever.....	7,722	1,055
Poliomyelitis.....	385	25	Typhus fever.....	23	2
Puerperal causes.....	-----	1,337	Whooping cough.....	-----	1,085

GREAT BRITAIN

*England and Wales—Vital statistics—April–June 1933.*—During the second quarter of the year 1933, 154,165 live births and 108,609 deaths were registered in England and Wales. The following statistics are taken from the Quarterly Return of Births, Deaths, and Marriages, issued by the Registrar-General of England and Wales. The figures are provisional.

*Birth and death rates in England and Wales, April to June 1933*

Annual rates per 1,000 population:		Annual rates per 1000 population—Continued.	
Live births.....	15.40	Deaths from—Continued.	
Stillbirths.....	.66	Typhoid fever and paratyphoid fever.....	.00
Deaths, all causes.....	10.80	Violence.....	.03
Deaths from—		Whooping cough.....	.04
Diphtheria.....	.05	Deaths per 1,000 live births:	
Influenza.....	.11	Diarrhea and enteritis (under 2 years).....	4.90
Measles.....	.07	Total deaths under 1 year.....	53.00
Scarlet fever.....	.01		

*England and Wales—Infectious diseases—Thirteen weeks ended July 1, 1933.*—During the 13 weeks ended July 1, 1933, cases of certain infectious diseases were reported in England and Wales, as follows:

Disease	Cases	Disease	Cases
Diphtheria.....	9,473	Puerperal pyrexia.....	1,392
Ophthalmia neonatorum.....	1,021	Scarlet fever.....	25,228
Pneumonia.....	11,461	Smallpox.....	267
Puerperal fever.....	504	Typhoid fever.....	374

IRISH FREE STATE

*Vital statistics—First and second quarters 1933.*—The following statistics for the Irish Free State for the first and second quarters of the year 1933 are taken from the Quarterly Return of Marriages, Births, and Deaths for the second quarter 1933, issued by the registrar-general.

	First quarter 1933		Second quarter 1933	
	Number	Per 1,000 population	Number	Per 1,000 population
Marriages.....	3,611	4.8	3,449	4.6
Births.....	13,739	18.4	14,994	20.0
Total deaths.....	12,922	17.3	9,731	13.0
Deaths under 1 year.....	1,067	( <sup>1</sup> )	892	( <sup>1</sup> )
Deaths from:				
Cancer.....	799	1.07	731	.98
Diarrhea and enteritis (under 2 years).....	105		83	
Diphtheria.....	125		70	
Influenza.....	1,107	1.48	383	.51
Measles.....	67		36	
Puerperal sepsis.....	17	1.24	14	1.93
Scarlet fever.....	29		6	
Tuberculosis (all forms).....	920	1.23	940	1.26
Typhoid fever.....	12		16	
Typhus fever.....			1	
Whooping cough.....	80		75	

<sup>1</sup> Deaths under 1 year per 1,000 births: First quarter 1933, 78; second quarter 1933, 59.

<sup>2</sup> Per 1,000 births.



## PUERTO RICO

*Notifiable diseases—Four weeks ended September 23, 1933.*—During the 4 weeks ended September 23, 1933, cases of certain notifiable diseases were reported in the municipalities of Puerto Rico as follows:

Disease	Cases	Disease	Cases
Chicken pox.....	6	Paratyphoid fever.....	2
Diphtheria.....	48	Pellegra.....	1
Dysentery.....	208	Pink eye.....	1
Erysipelas.....	3	Ringworm.....	9
Filariasis.....	15	Syphilis.....	2
Framboesia.....	1	Tetanus.....	3
Influenza.....	29	Tetanus (infantile).....	5
Malaria.....	3, 234	Trachoma.....	3
Measles.....	33	Tuberculosis.....	468
Mumps.....	27	Typhoid fever.....	37
Ophthalmia neonatorum.....	7	Whooping cough.....	102

### CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

(NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for Sept. 29, 1933, pp. 1206-1217. A similar cumulative table will appear in the PUBLIC HEALTH REPORTS to be issued Oct. 27, 1933, and thereafter, at least for the time being, in the issue published on the last Friday of each month.)

#### Cholera

*Philippine Islands.*—During the week ended September 30, 1933, cholera was reported in the Philippine Islands as follows: Bohol Province, Nasingin Island, 6 cases, 3 deaths; Cebu Province, Barili, 1 case, 1 death; Cebu city, 5 cases, 3 deaths; Minglanilla, 3 cases, 1 death; and Talisan 3 cases, 2 deaths.

#### Plague

*China—Manchuria.*—A report dated September 28, 1933, stated that in the villages near Nungan, Hunghsing Station, and Paiyintala, Manchuria, China, 300 deaths from bubonic plague had occurred since August 1933.

Information dated October 6, 1933, stated that a serious epidemic of bubonic and pneumonic plague had been reported on September 26, along the Ssuping kai-Taonan and Chinese Eastern Railways, affecting particularly the cities of Tungliao (Paiyintala), Kaitung, Taonan, Yaomen, and Nungan.

#### Typhus Fever

*Chile—Valparaiso.*—During the week ended September 9, 1933, 8 cases of typhus fever with 1 death were reported in Valparaiso, Chile.

#### Yellow Fever

*French West Africa—Niger Territory.*—During the week ended September 30, 1933, yellow fever was reported in Niger Territory, French West Africa, as follows: Kaolack, 1 case, and Zinder, 1 case.