Public Health Reports

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ANNOUNCEMENT

CONFERENCE OF STATE AND TERRITORIAL HEALTH OFFICERS

The forty-fifth annual conference of the Surgeon General of the United States Public Health Service with the State and Territorial health officers will be held December 2, 3, 4, and 5, 1946, in the auditorium of the United States Public Health Service Building, 19th Street and Constitution Avenue NW, Washington 25, D. C.

All State and Territorial health authorities are urged to attend this conference. The general sessions will be open to all persons wishing to attend.

NEGRO MORTALITY

II. THE BIRTH RATE AND INFANT AND MATERNAL MORTALITY [1]

By MARY GOVER, *Statistician, United States Public Health Service*

The growth of the registration area for births has always lagged behind that for deaths; and it is only since approximately 1930 that the area has comprised the States in which the majority of Negroes live. The birth registration area in 1920 included 22 States and the District of Columbia or 62 percent of the white and only 29 percent of the Negro population. By 1927 representation was appreciably better, including 40 States and the District of Columbia, or 90 and 72 percent of the white and Negro populations, respectively, as enumerated in 1920. Since 1933 all States have been included in the birth registration area.

The completeness of the reports of births, as well as the States represented in the birth registration area, has also lagged behind that for deaths. By a process of matching birth and death certificates

[1] From the Division of Public Health Methods. This is the second *(1)* in a series of short reports on Negro mortality consisting of data assembled from available sources and prepared at the request of the office of Negro Health Work, U. S. Public Health Service.

and enumeration records, the Bureau of the Census (*2*) has concluded that birth registration in 1940 was 94 percent complete for the total white and 82 percent complete for the total nonwhite populations of the United States. There were approximately 25 and 50 percent of States in which 10 percent or more of births occurring in 1940 were not registered for white and Negro populations, respectively. In the South Atlantic and South Central sections the completeness of birth registration for nonwhite populations was 60 to 69 percent in three States, 70 to 79 percent in three States, 80 to 89 percent in seven States, and 90 to 99 percent in the remaining four States. Registration is also less in rural than in urban areas,[2] 97 and 90 percent for white and 92 and 77 percent complete for nonwhite populations in urban and rural areas of the United States, respectively. Although the registration of births is obviously incomplete, particularly in certain sections, some progress in registration is shown by a comparison of the Bureau of the Census report for 1940 (*2*) with the estimates of underreporting made by Whelpton (*6*) for 1930, in which 25 percent of States in 1940, as opposed to 43 percent in 1930, showed 10 percent or more of white births to have been unregistered.

Allocation by the Bureau of the Census of births and deaths to place of residence has greatly facilitated urban and rural comparisons.

TABLE 1.—*Natality, infant, and maternal mortality for nonwhite and white in urban and rural areas of the United States—resident rates, 1939 to 1943* [1]

Year	Birth rate: Births per 1,000 women 10–54 years	Infant mortality: Infant deaths per 1,000 live births			Maternal mortality: Deaths from puerperal causes per 10,000 live births		
	Total	Total	Urban [2]	Rural [2]	Total	Urban [2]	Rural [2]
	Nonwhite						
1939	58.9	74.2	73.2	74.8	76.2	83.5	72.4
1940	60.4	73.8	71.6	75.0	77.3	73.3	79.6
1941	63.0	74.8	71.0	77.1	67.8	[3]	[3]
1942	65.1	64.6	64.0	65.0	54.4	53.4	55.0
1943	68.1	62.5	65.0	60.8	51.0	48.5	52.6
1944	67.6	60.3					
	White						
1939	49.3	44.3	41.1	46.8	35.3	34.2	36.1
1940	51.0	43.2	39.0	46.7	32.0	29.8	33.8
1941	53.9	41.2	36.5	45.3	26.6	[3]	[3]
1942	60.5	37.3	34.3	40.2	22.2	19.9	24.4
1943	62.9	37.5	35.8	39.1	21.1	19.6	22.5
1944	59.3	36.9					

[1] Rates for 1939 and 1940 are taken from Vital Statistics Rates in the United States, 1900–1940 (1943) pages 669, 578, and 622 (*4*). Rates for the years 1915–38, plotted in figures 1 to 3, can be obtained from the same reference. Rates prior to 1933 are for the expanding birth registration States; urban and rural deaths prior to 1939 are recorded for place of occurrence. Rates for 1941–43 are computed from births and deaths as given in Vital Statistics of the United States, Bureau of the Census, 1941, 1942, and 1943.

[2] *Urban* is defined as cities of 10,000 population or more; *rural* as cities of less than 10,000 population and rural areas.

[3] Not available in the annual report.

[2] Urban includes cities of 10,000 or more population; rural, towns under 10,000 population and rural areas.

Allocation to place of residence lowers the urban [3] death rate approximately 8 percent in cities of varying size and raises the rural [3] death rate 13 percent; while it lowers the urban [3] birth rate, per 1,000 population, approximately 20 percent in cities of varying size and raises the rural birth rate 28 percent, 1940 (*3*).

COURSE OF NATALITY AND MORTALITY

Figures 1, 2, and 3 show the course of the birth rate and infant and maternal mortality, since 1920, in the expanding birth registration States for both nonwhite [4] and white. The birth rate is expressed as the number of births per 1,000 women 10 to 54 years of age; infant mortality as deaths under 1 year of age per 1,000 live births; and maternal mortality as deaths of women from puerperal causes per 10,000 live births.

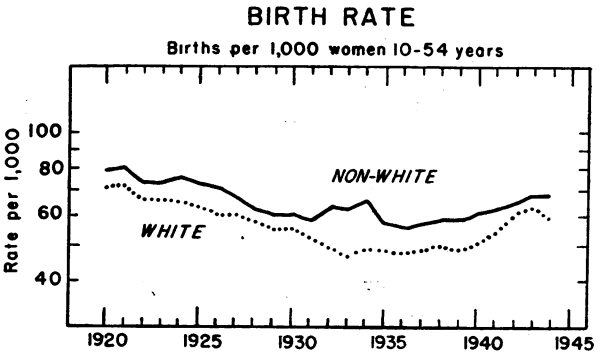

FIGURE 1.—Course of the birth rate in the expanding birth registration States, 1920–43. For table of rates see Vital Statistics Rates in the United States, 1900–1940, (*4*) page 669, and table 1 of this report.

The Negro birth rate (fig. 1) has been roughly 10 to 30 percent higher than the white. Negro as well as white natality declined from 1920 to 1930 at approximately 2.5 percent annually; the years 1932 to 1934 show an unusually high birth rate among Negroes; from 1936 to 1943 Negro natality increased at approximately 2.5 percent annually. Both the Negro and white birth rates, however, show an accelerated increase since the beginning of World War II, the Negro rate of increase since 1940 being less than the white.

Infant mortality since 1920 (fig. 2) has been approximately 65 percent higher for Negroes than whites in the birth registration States. Both Negro and white infant mortality declined from 1925 to 1935 at a rate of approximately 2.5 percent annually; since 1936 the decline in infant mortality has been accelerated to about 3.8 and 4.5 percent annually for Negroes and whites, respectively.

[3] Urban includes cities and towns of 2,500 or more population; rural, towns under 2,500 and rural areas.

[4] In the total United States 96 percent of the nonwhite population enumerated in 1940 was Negro and therefore rates for the entire country which are obtainable only for the nonwhite population will be referred to as Negro rates. The same applies to northern and southern sections of the country also, since the proportion of the nonwhite population that is Negro is 96 and 99 percent, respectively. Rates for separate geographic areas shown in figures 4, 5, 6 are computed specifically for Negroes.

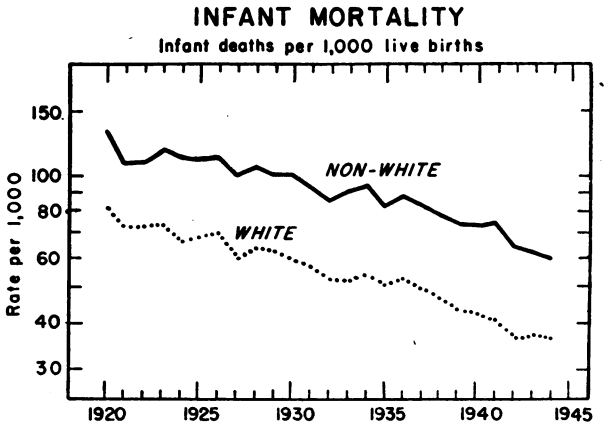

FIGURE 2.—Course of infant mortality in the expanding birth registration States, 1920–43. For table of rates see Vital Statistics Rates in the United States, 1900–1940, (4) page 578, and table 1 of this report.

Maternal mortality has decreased since 1920 (fig. 3) with a marked acceleration in the rate of decline after 1936 for both Negroes and whites. From 1928 to 1935 the annual rate of decline was roughly 2.5 percent for both races, the level of the Negro rate being somewhat less than twice the white. From 1936 to 1943 the rate of decline in maternal mortality has been approximately 7.0 percent for Negroes and 9.5 percent for whites.

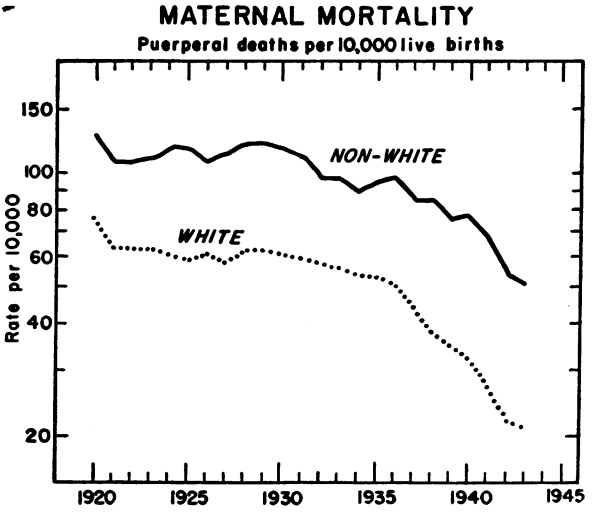

FIGURE 3.—Course of maternal mortality in the expanding birth registration States. 1920–43. For table of rates see Vital Statistics Rates in the United States, 1900–1940, (4) page 622, and table 1 of this report.

NATALITY AND MORTALITY IN GEOGRAPHIC SECTIONS

Figures 4, 5, and 6 show resident natality, infant mortality, and maternal mortality for Negro and white populations in nine geographic sections of the United States for an average of 3 years centering on 1940 for natality and on 1939 for infant and maternal mortality.

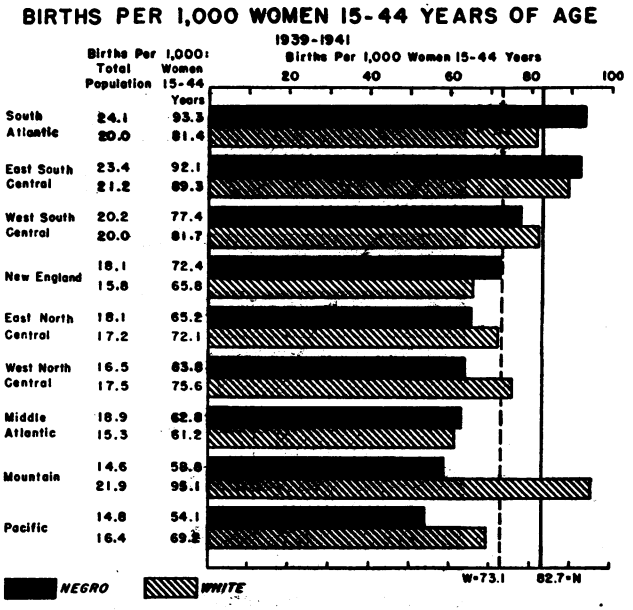

FIGURE 4.—The birth rate in nine geographic sections of the United States (*5*).

The southern sections have high birth rates for both Negroes and whites (fig. 4). Among the northern sections the New England region has a relatively high birth rate for both races. Negroes in the Mountain and Pacific sections have comparatively low birth rates, whereas for whites in the same areas the rates are relatively high. A comparison of Negro and white birth rates in separate sections becomes clearer when the rates are specific for size-of-city as in the following section (fig. 7).

Infant mortality in the total United States,[5] 1938 to 1940, was 66 percent higher for Negroes than whites; the unweighted average of the rates for separate sections, however, is 53 percent higher for Negroes; and in specific sections, such as the South Central, Negro infant mortality is only about 35 percent higher than the white (fig. 5). Broadly speaking the array of geographic sections by rate of infant mortality is the same for Negro and white; the main exception is the high Negro rate in the West North Central area which may be due to the concentration of the Negro population in large cities in the southern part of the section. Southern sections have relatively high infant mortality; the Middle Atlantic, East North Central, New England, and Pacific sections have relatively low rates for both races.

[5] The mean rate for Negroes in the total United States is heavily weighted by the high rates in the South Atlantic and South Central sections; for whites by the low rates in the Middle Atlantic, North Central, New England, and Pacific sections. These are areas which comprise 77 and 70 percent of the total Negro and white populations, respectively.

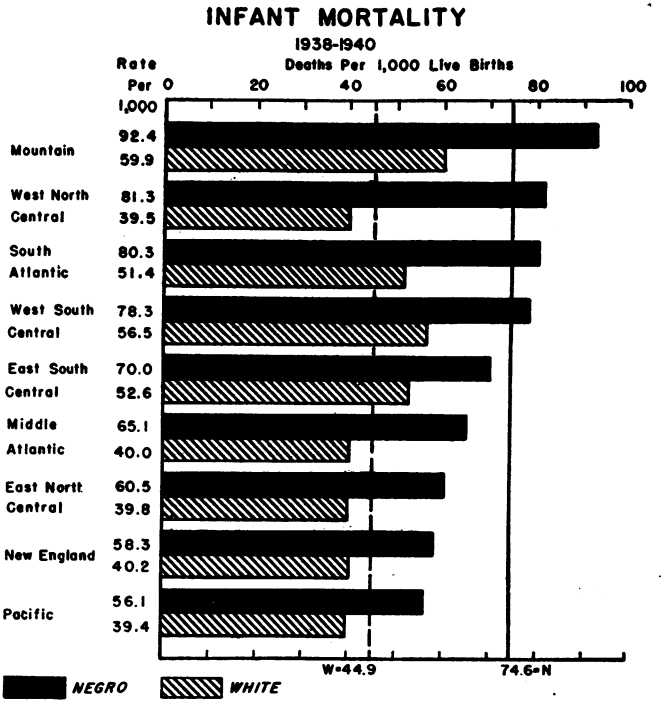

FIGURE 5.—Infant mortality in nine geographic sections of the United States (5).

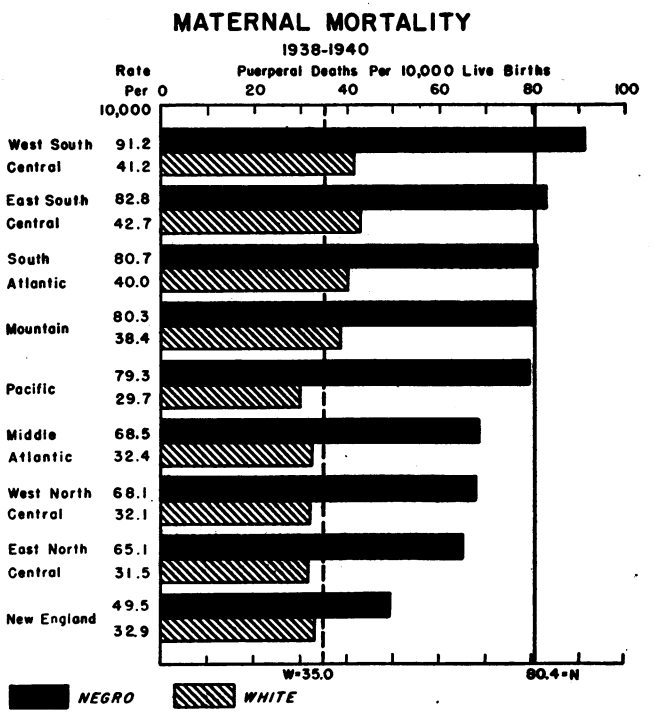

FIGURE 6.—Maternal mortality in nine geographic sections of the United States (5).

Maternal mortality, 1938 to 1940 (fig. 6), was 2.3 times as high for Negroes as whites in the total United States. The ratio for separate sections is fairly uniform, somewhat above 2.0, except in the Pacific section where the Negro rate is unusually high relative to the white, and in the New England region where the Negro and white rates are more nearly alike. The array of sections is practically the same for Negro and white; the southern sections again have the highest rates and New England the lowest.

NATALITY AND MORTALITY IN URBAN AND RURAL AREAS OF NORTH AND SOUTH

Figures 7, 8, and 9 give a comparison of the nonwhite birth rate, infant mortality, and maternal mortality with the white, specific for size-of-city and rural area in North and South. Births and deaths specific for size-of-city are obtainable only for the nonwhite population, but in the total of North and South the nonwhite population is almost entirely Negro so that the comparison of nonwhite with white is essentially a Negro and white comparison. The rates shown in figures 7, 8, and 9 are based on resident births and deaths for the year 1940. Resident births and deaths are practically essential for any urban and rural comparison, and with the dissimilar distribution of Negro and white populations between urban and rural areas of both North and South, resident deaths become even more necessary for a valid comparison.

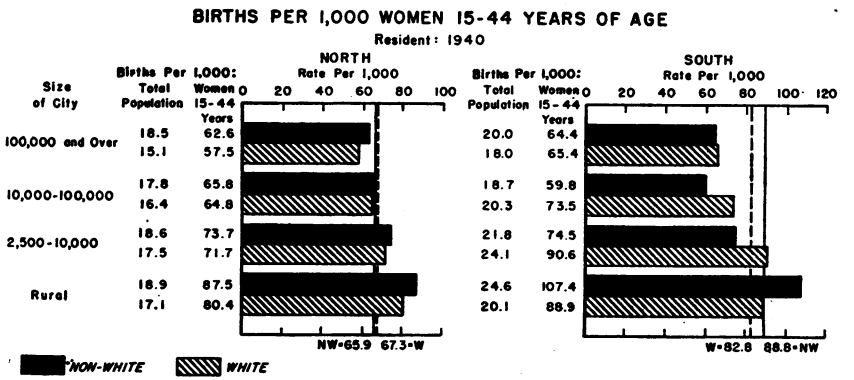

FIGURE 7.—The birth rate in North and South by size of city. *North* comprises the New England, Middle Atlantic, East North Central, and West North Central sections. *South* comprises the South Atlantic, East South Central, and West South Central sections.

In the North (fig. 7) the Negro birth rate is somewhat higher than the white in each size-of-city group, and increases as size-of-city decreases for both races. In the South, however, the Negro rate is lower than the white in all except rural areas, and in general increases for both races as size-of-city decreases. It is quite possible that

underregistration of births has appreciably lowered the rates in southern rural areas. Among southern whites the rural birth rate is slightly lower than in small towns but among southern Negroes the recorded rural rate is 44 percent higher than in small towns; it is not impossible, however, that the Negro rural birth rate would be even higher if corrected for incomplete registration. In comparing the rates for North and South, the white birth rate is distinctly higher in the South than in the North for each size-of-city group; the Negro birth rate specific for size-of-city, however, is practically the same in North and South except in rural areas, where the Negro birth rate is definitely higher in the South.[6]

In the North, Negro infant mortality (fig. 8) is higher, relative to the white, in rural areas than in large cities; and increases for both races as size-of-city decreases. In the South, Negro and white infant mortality in large cities are in about the same ratio as in the North, but in rural areas of the South the ratio of Negro to white infant

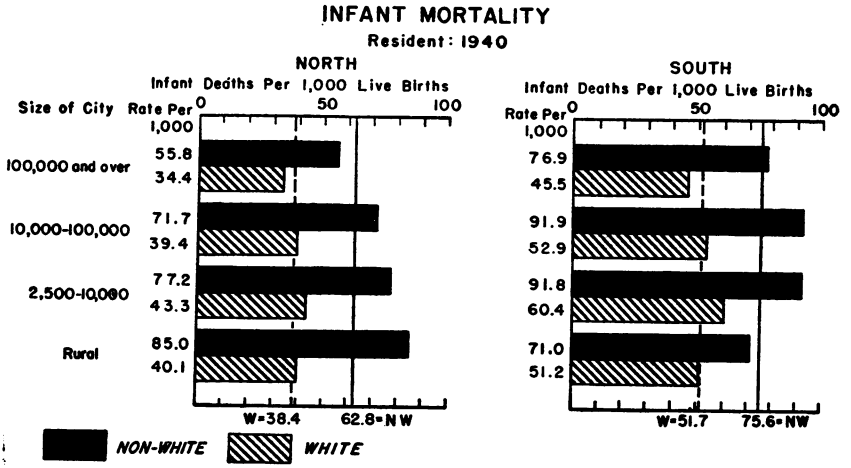

FIGURE 8.—Infant mortality in North and South by size of city. *North* comprises the New England, Middle Atlantic, East North Central, and West North Central sections. *South* comprises the South Atlantic, East South Central, and West South Central sections.

mortality is less than in the North because of the comparatively low rate for rural Negroes. Southern infant mortality is higher than northern for all groups except the rural Negro; in southern rural areas recorded Negro infant mortality drops below that in cities of the South and is about the same as in cities of 10,000 to 100,000 population in the North. Only in northern cities of 100,000 or more

[6] Figure 7 contains apparent inconsistencies in the total birth rate for nonwhite and white in both North and South that are caused by population weighting. In the North the nonwhite population is predominantly urban, while in the South it is rural. In the North, therefore, the total nonwhite rate is weighted unduly by the low rate in large cities and in the South by the high rate in rural areas, as compared with the white. The result is that in the North the total nonwhite rate is lower than the white although for each size-of-city group it is higher; and in the South the total nonwhite rate is higher than the white, although in all except rural areas it is lower.

population is the recorded Negro infant mortality rate lower than it is in southern rural areas.

Infant mortality is expressed, in figure 8, as infant deaths per thousand live births; underregistration of deaths, therefore, decreases and underregistration of births increases the rate, the two thus tending to counteract each other. The Bureau of the Census estimates a larger underregistration of births than deaths; and therefore the infant mortality rate, that is, infant deaths per 1,000 live births may be even too high as recorded.

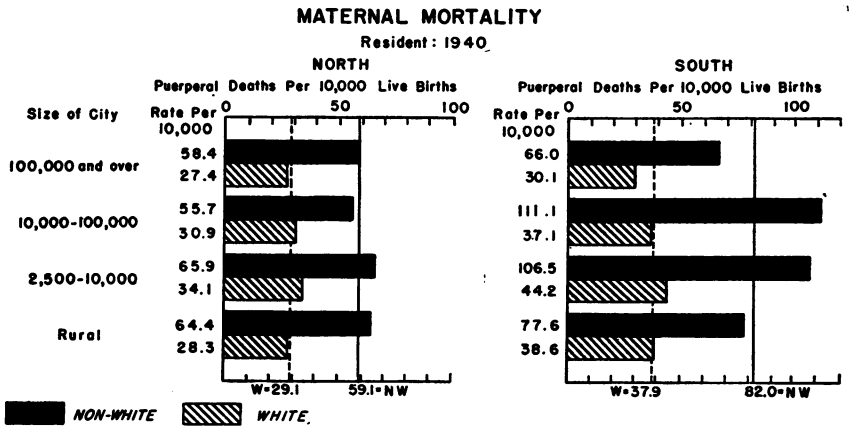

FIGURE 9.—Maternal mortality in North and South by size of city. *North* comprises the New England, Middle Atlantic, East North Central, and West North Central sections. *South* comprises the South Atlantic, East South Central, and West South Central sections.

Negro maternal mortality (fig. 9) in the North is higher relative to the white in rural areas than in towns or large cities, and increases slightly as size-of-city decreases. In the South the ratio of the Negro to the white rate is approximately the same as in the North for large cities and rural areas; in smaller cities and in towns, however, recorded Negro maternal mortality is exceptionally high, almost three times the recorded white rate. Maternal mortality is higher in the South than in the North, being relatively highest for small cities and towns where the Negro rate is exceptionally high.

SUMMARY

Negro natality (live births per 1,000 women 15 to 44 years of age), infant mortality (infants deaths per 1,000 live births) and maternal mortality (deaths from puerperal causes per 10,000 live births) have been presented for the birth registration States, 1920 to 1943 for nine geographic areas in 1940, and for urban and rural areas of North and South in 1940, compared in each instance with the white. Resident deaths make possible a comparison of natality and mortality specific for size-of-city in North and South.

From 1920 to 1936, natality, infant mortality, and maternal mortality were declining at approximately the same rate for Negro and white; since 1936 the birth rate has increased among both Negroes and whites; infant and maternal mortality have continued to decline to the present but at a more rapid rate since 1936 than prior to that year and with a greater acceleration in the recent decline for whites than Negroes.

The birth rate in 1940 was higher for Negro than white in all size-of-city groups in the North; but in the South the white rate is the higher except in rural areas. The birth rate tends to increase as size-of-city decreases. The Negro birth rate specific for size-of-city is about the same in North and South except in rural areas, where the southern rate is higher.

Negro infant mortality is higher than white in all groups; and, on the whole, increases as size-of-city decreases except in the South where the rural Negro rate is lower than the urban in any size-of-city group. Southern infant mortality is higher than northern except for the low rate among southern rural Negroes.

Maternal mortality is decidedly higher among Negroes than whites and higher in the South than in the North. Maternal mortality in the North increases slightly as size-of-city decreases; in the South the Negro rates in towns and small cities are exceptionally high.

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(*5*) United States Department of Labor, Children's Bureau: Births, infant mortality, maternal mortality. Graphic presentation, 1940 (1943).
(*6*) Whelpton, P. K.: The completeness of birth registration in the United States. J. Am. Statist. Assoc., **29**:125–136 (1934).

THE REMOVAL OF THE CERCARIAE OF *SCHISTOSOMA MANSONI* FROM WATER BY FILTRATION THROUGH DIATOMACEOUS SILICA IN A SMALL MODEL FILTER [1]

By Myrna F. Jones, *Zoologist*, and Frederick J. Brady, *Surgeon, United States Public Health Service*

The probable use of diatomaceous silica filters by the armed forces in areas where schistosomiasis is endemic made it imperative to determine the efficiency of this type of equipment for the removal of schistosome cercariae from water supplies. Studies (*1*), (*2*) have shown

[1] From the Zoology Laboratory, National Institute of Health. (Assigned date of publication in Public Health Reports, October 6, 1944, but withheld for security reasons.)

that cercariae are able to pass sand filters in considerable numbers. In fact, Leiper (*1*) found them to penetrate through 30 inches of "sand of the finest grain used by the Cairo [Egypt] water works." Diatomaceous silica filters were found to be considerably more efficient than sand filters operated at the rates required by the Army in the removal of cysts of *Endamoeba histolytica* (*3*).

A small model filter for use with diatomaceous silica was provided for these experiments through the courtesy of Capt. Hayse H. Black, Chief, Water Supply and Equipment Branch, Engineer Board, Fort Belvoir, Va. This filter (fig. 1) consisted of a glass cylinder of about 700-ml. capacity mounted vertically with rubber gaskets and constructed to allow the interposition of a rigid porous cylinder, the diaphragm, between the influent at the bottom and the effluent at the top.

Diaphragms of two types were provided for use in this study. The aloxite diaphragm [2] had a 30-grade porosity and the carbon diaphragm [3] had a 60-grade porosity. Only diaphragms of 1-inch lengths were used and each had a surface area of slightly over 5.5 square inches.

Water was circulated through the equipment by the use of an electrically driven centrifugal pump [4] and the rate of pumping was governed by a rheostat connected to the electric motor.

Two Kelly flasks were used to add water, suspensions of diatomaceous silica, and suspensions of cercariae to the unit. A pressure gage was placed between the pump and the filter unit proper.

Three types of diatomaceous silica were used. Dicalite 4200 is the coarsest grade marketed by the Dicalite Co. and its use would be presumed to be a critical test of this type of filtering medium. Dicalite Speedplus was used because this may be recommended as the grade most useful in water sterilization. Sorbo-Cel 503,[5] a chemically treated silica, was used because such treatment of the material is supposed to increase its filtering efficiency.

In the operation of the filter, water was added to the equipment in sufficient quantity to fill the glass filter chamber and a weighed amount of diatomaceous silica was added to a Kelly flask to permit filtration through the recommended amount of 0.15 pounds per square foot of filtering area. The motor was started and the air vented from the top of the glass filter chamber. The filtered water was returned to the Kelly flask until such time as most of the diatomaceous silica was deposited on the diaphragm. The effluent hose was now removed from the Kelly flask and placed in the collecting flask. Either the cercarial suspension or water could be added at will to a Kelly flask, depending upon the plan of the experiment.

The cercariae were shed by laboratory-infected snails, *Australorbis*

[2] Manufactured by the Carborundum Co.
[3] Manufactured by the National Carbon Co.
[4] Models B and E of the Eastern Engineering Co.
[5] Johns-Manville Special Sorbo-Cel 503.

glabratus, and were from a Puerto Rican strain of *Schistosoma mansoni*. In most experiments, the cercariae had been shed during the previous 24 hours, although in some experiments active cercariae collected over a 48-hour period were used. The cercarial suspension usually contained a small amount of snail feces and even small particles of lettuce upon which the snails fed.

Estimates of the numbers of cercariae were made by counting those found in the bottom of a container holding either an aliquot portion or the whole sample after killing with alcohol or mercuric chloride. Counts were made under a dissecting microscope.

Either tap water or raw river water was used throughout as the diluent medium. In one instance, kaolin was added to the water in order to increase the pressure on the filter through a mechanical plugging action.

RESULTS OF TESTS

One experiment was performed to determine the efficiency of the technique of recovery of the cercariae. In this experiment, the filter housing alone was used without the addition of either the diaphragm or diatomaceous silica. About 14,000 cercariae were added to the equipment and, by counting the number in three 10-ml. aliquot samples, it was estimated that over 10,000 cercariae were recovered in the effluent. By estimation from a single 100-ml. aliquot sample, a similar figure was obtained. After operation, 830 ml. of water remained in the filter housing. An estimate from two 10-ml. aliquot samples of this gave over 900 cercariae while a similar estimate on one 100-ml. sample gave over 800 cercariae. These latter numbers represent cercariae that never reached the effluent tubing and presumably could not be expected to reach the effluent in later experiments unless much larger quantities of water were filtered. Discounting these cercariae, approximately 75 percent of the added cercariae were recovered.

Four experiments were performed to determine the efficiency of the diaphragms in removing the cercariae without the addition of diatomaceous silica. These data are presented in table 1. It will be seen that no cercariae were recovered in one test with the carbon diaphragm while about 1 percent of the cercariae were recovered in a second test. In the tests using the aloxite diaphragm, about 3 and 4 percent, respectively, of the applied cercariae were recovered in the effluent. It will be noted that the numbers of recovered cercariae increased with the duration of the filtration, probably because of a lag in the cercariae finding their way through the tortuous porous openings.

Nine experiments were performed to determine whether the cercariae could penetrate the coating of diatomaceous silica after its application to the diaphragm. The data are presented in table 2. In spite of the use of varying flow rates and pressures, two types of

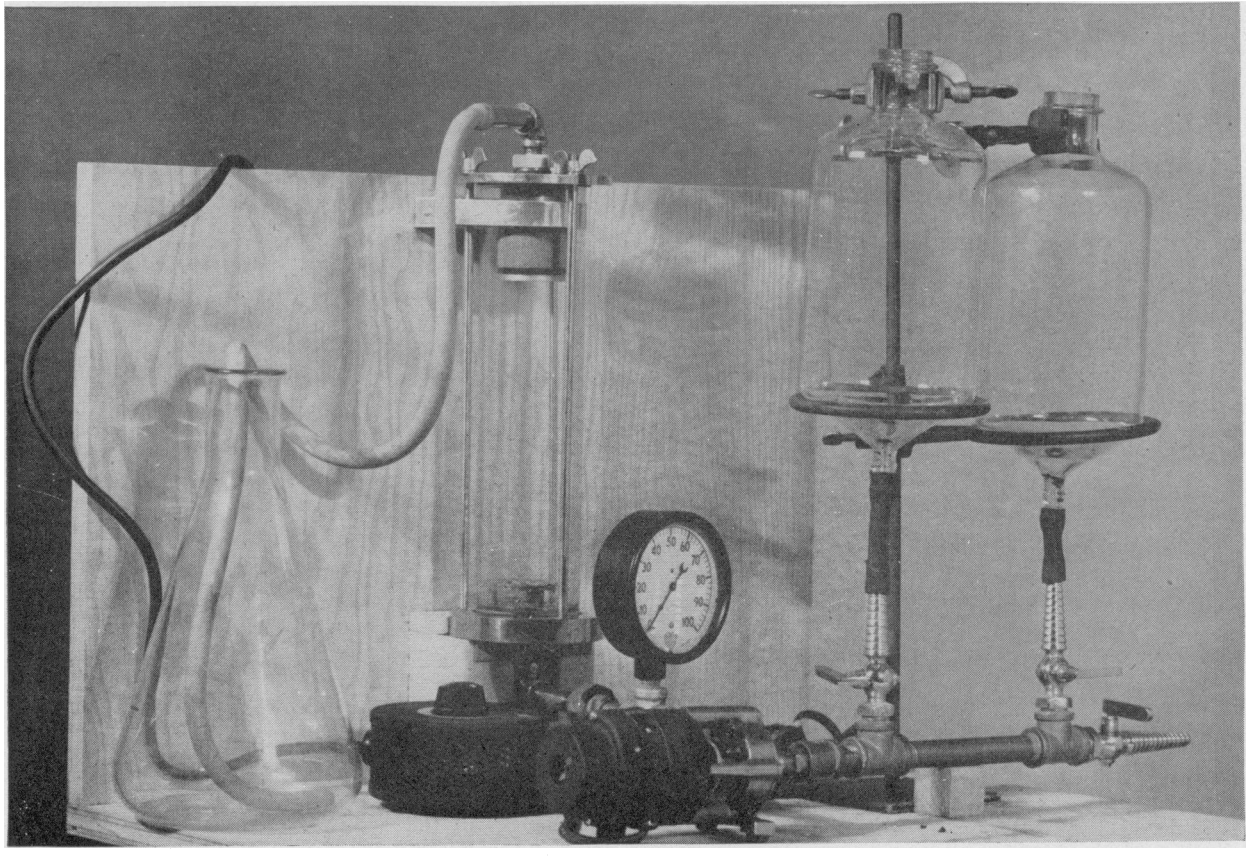

FIGURE 1.—Model diatomaceous silica filter.

TABLE 1.—*The recovery of cercariae of* Schistosoma mansoni *after passing a suspension through a model diatomaceous silica filter operated with a diaphragm but without the silica*

Date	Type of diaphragm	Rate of filtration (gal./ft.²/min.)		Pressure (lbs./in.²)		Filtering time		Amount of effluent (ml.)	Number applied cercariae	Cercariae recovered in effluent
		Maximum	Minimum	Maximum	Minimum	Minutes	Seconds			
Dec. 27, 1943	Carbon	4.8	3.6	2	0	8	10	2,000	22,500	0.
Jan. 25, 1944	do	16.0	7.9	2.5	0	3	36	6,000	7,000	1st 2,000 ml.–3. 2d 2,000 ml.–20. 3d 2,000 ml.–39.
Dec. 18, 1943	Aloxite	5.4	5.4	0	0	2	30	2,000	5,000	150+.
Dec. 29, 1943	do	------	------	0	0	------	------	2,000	9,700	1st liter–0. 2d liter–400.

TABLE 2.—*The recovery of cercariae of* Schistosoma mansoni *after passing a suspension through a model diatomaceous silica filter*

Date	Type of diaphragm	Type of diatomaceous silica	Rate of filtration (gal./ft.²/min.)		Pressure (lbs./in.²)		Filtering time		Amount of effluent (ml.)	Number cercariae applied	Number cercariae in effluent
			Maximum	Minimum	Maximum	Minimum	Minutes	Seconds			
1943											
Dec. 22	Carbon	Special	3.7	1.8	3	1	5	30	2,000	8,400	0
		Sorbo-Cel 503									
Dec. 23	do	Speedplus	6.7	------	2.5	0	6	17	2,000	7,300	0
Dec. 21	Aloxite	Special	5	2.5	2	----	4	12	2,000	5,415	0
		Sorbo-Cel 503									
Dec. 15	do	Speedplus	3.6	1.5	3	0	6	30	2,000	5,040	0
Dec. 17	do	do	2.3	0.9	3	0	27	0	2,000	8,500	0
1944											
Jan. 7	do	4200	1.7	1	0	0	10	15	2,000	7,700	0
Jan. 12	do	4200	------	------	13	10	3	26	2,000	------	------
			1.2	------	10	1	6	4	775	9,050	0
Jan. 13	do	4200	11.1	4.3	9	2.5	7	0	6,000	4,400	0
Jan. 14	do	4200 [1]	1.5	0.3	17	6	19	50	2,900	10,800	0

[1] Kaolin added in an equal amount.

diaphragms, and three types of diatomaceous silica, it will be noted that there were no cercariae recovered in any of the samples examined. The samples were felt to be of adequate size to lend validity to the results of the experiment in spite of losses due to technique.

Three experiments were performed with an aloxite diaphragm to determine the numbers of cercariae that could be found in the effluent when a contaminated water was used for the precoating process. The data are presented in table 3. The first and third experiments were not continued long enough for the effluent samples to become free of cercariae. However, during the precoating operation in the second experiment, cercariae were found in the recirculating water for a period of 12 minutes. It is noteworthy that the effluent appeared to be free from visible turbidity within 1 minute after recirculation had started. In an experiment performed without cercariae but with a

TABLE 3.—*The recovery of cercariae of* Schistosoma mansoni *during precoating and filtration of a cercarial suspension in a model diatomaceous silica filter*

Date	Number cercariae applied	Precoating								Filtration							
		Elapsed time (min.)	Pressure (lbs./in.²)		Rate of filtration (gal./ft.²/min.)		Time of sample (min.)	Size of sample (ml.)	Number cercariae recovered in sample	Elapsed time (min.)	Pressure (lbs./in.²)		Rate of filtration (gal./ft.²/min.)		Time of sample (min.)	Size of sample (ml.)	Number cercariae recovered in sample
			Maximum	Minimum	Maximum	Minimum					Maximum	Minimum	Maximum	Minimum			
Dec. 30, 1943	4,200	0–8	3	2	2	2	2	100	5	8–17	2.5	3	1.8	1.4	8	2,000	8
															17	1,000	3
Jan. 21, 1944	5,100	0–15	13	6	2.2	0.8	1	100	2	15–32	19	18	2.6	2.4	17	1,000	0
							2	100	4						20	1,000	0
							3	100	5						30	1,000	0
							5	100	1								
							7	100	2								
							9	100	1								
							12	100	1								
							15	100	0								
Feb. 28, 1944	27,500	0–10	13	9	2.4	1.8	1	100	382	10–35	14	14	1.9	1.7	10	1,000	8
							3	100	65						12	1,000	6
							5	100	20						14	1,000	5
							7	100	6								
							8	100	1								
							9	100	2								
							10	100	1								

raw water with a turbidity of 133 p. p. m., the effluent was free of visible turbidity in 1 minute of operation.

DISCUSSION

These experiments demonstrate the efficiency of diatomaceous silica for removing the cercariae of *Schistosoma mansoni*. In the case of sand filters, the interstices between the grains of sand are relatively large, and this circumstance combined with the active movements of cercariae permits the passage of these organisms. With the diatomaceous silica, the pores between the individual particles are small and, because of their irregular shapes, the particles are compressed into a tight mass. Both of these factors operate to keep the cercariae from passing the filter.

It must be noted, however, that a high degree of contamination of the diaphragm and effluent tubing occurs when the cercarial suspension is used in the precoating process. To safeguard against this contamination, effluent waters should be discarded for a period after the effluent becomes visibly clear. The length of this interval would depend on a number of factors such as rate and pressure of flow, thickness of diaphragm, and length of effluent tubing. No attempt was made to evaluate this time factor because generalizations made on the basis of this experimental equipment would not be applicable to units of a different design.

SUMMARY

Tests were made to determine the efficiency of a small model diatomaceous silica filter in the removal of the cercariae of *Schistosoma mansoni* from raw water. Cercariae added to the precoating solution were found to be present in the water passing the filter for as long as 12 minutes after the beginning of recirculation even though the filtered water appeared to be visibly free from turbidity within 1 minute after the beginning of recirculation.

When the cercariae were added to the influent water after the diatomaceous silica had been deposited on the diaphragm, none was recovered in the effluent in any of nine experiments in spite of the use of three grades of diatomaceous silica, the use of low and high pressures, and the use of slow and rapid filtration rates.

REFERENCES

(*1*) Leiper, R. T.: Report on the results of the Bilharzia Mission in Egypt, 1915. J. Roy. Army Med. Corps., 27: 171–190 (July 1916).

(*2*) Witenberg, G., and Yofe, J.: Investigation on the purification of water with respect to schistosome cercariae. Trans. Roy. Soc. Trop. Med. & Hyg., 31: 549–570 (March 1938).

(*3*) Lowe, Harry N., Jr.; Brady, Frederick J.; Jones, Myrna F.; Wright, Willard H.; and Black, Hayse H.: Report 834, Efficiency of Standard Army Water Purification Equipment and of Diatomite Filters in Removing Cysts of *Endamoeba histolytica* from Water (Restricted) War Department (July 3, 1944).

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CHANGES IN STATE AND TERRITORIAL HEALTH AUTHORITIES

Change No. 2 to Directory of State and Territorial Health Authorities (Supplement No. 180 to the Public Health Reports—1945 Revision)

The following changes have been received since compilation of Change No. 1.[1] Notice of further changes should be addressed to the Records and Reports Unit, Bureau of State Services, United States Public Health Service, Washington 25, D. C.

ALABAMA STATE DEPARTMENT OF HEALTH

Douglas L. Cannon, M. D., M. P. H., Assistant State Health Officer

Cancer services:
D. G. Gill, M. D., D. P. H., acting director
Division of Cancer Control.

Industrial hygiene:
A. T. Rossano, acting director
Division of Industrial Hygiene.

Sanitation activities:
Rodent control and control of garbage collection and disposal—
G. R. Wright, director
Division of Typhus Fever Control.
Sanitation of bathing places—
T. H. Milford, director
Bureau of Sanitation.

Tuberculosis control:
N. H. DeJanney, M. D., acting director
Division of Tuberculosis Control.

Vital records:
Ralph Roberts, director
Bureau of Vital Statistics.

Miscellaneous activities:
Machine tabulation—
W. C. Wilson, director
Division of Machine Tabulation.

ALASKA TERRITORIAL DEPARTMENT OF HEALTH

Public health education:
Mary Hurley, M. P. H., consultant
Health Education Unit.

Tuberculosis control:
Leo J. Gehrig, Assistant Surgeon
United States Public Health Service
Division of Communicable Disease Control.

Miscellaneous activities:
Motor vessel hygiene—
Georgia N. Krusich, M. D. physician in charge
Marine Health Unit.

ARIZONA STATE DEPARTMENT OF HEALTH

Vital records:
Mary Davidson, deputy State registrar
Division of Vital Statistics.

CALIFORNIA STATE DEPARTMENT OF HEALTH

Communicable disease control, general:
Raymond Kaiser, M. D., chief
Bureau of Acute Communicable Diseases.

CONNECTICUT STATE DEPARTMENT OF HEALTH

Public health education:
Chester S. Bowers, acting director
Bureau of Public Health Education.

FLORIDA STATE DEPARTMENT OF HEALTH

Administration, general:
Accounting and financing—
Fred B. Ragland, director
Bureau of Finance and Accounts.

Laboratory services:
Albert V. Hardy, M. D., director
Bureau of Laboratories.

Nutrition:
Walter Wilkins, M. D., director
Nutrition Investigations and Services.

GEORGIA STATE DEPARTMENT OF HEALTH

Public health nursing:
Theodora Floyd, R. N., director
Division of Public Health Nursing.

[1] Change No. 1 appeared in PUBLIC HEALTH REPORTS, 61:1386-1387 (Sept. 20, 1946).

HAWAII STATE DEPARTMENT OF HEALTH

Sanitation activities:
Rodent control and control of garbage collection and disposal—
Bertram Gross, acting director
Division of Rodent Control.

IDAHO STATE DEPARTMENT OF HEALTH

Administration, general:
Accounting and financing—
J. R. Burkhard, accountant
Cancer services:
L. J. Peterson, M. P. H., acting administrative director
Central Administration.
Public health nursing:
Florence Whipple, R. N., director
Division of Public Health Nursing.
Sanitation activities:
Milk sanitation—
W. R. McLean, State milk sanitarian
Division of Public Health Engineering.

INDIANA STATE DEPARTMENT OF HEALTH

Dental services:
Charles L. Howell, D. D. S., director
Division of Dental Health.
Nutrition:
Robert Yoho, director
Division of Health and Physical Education.
Tuberculosis control:
Carl C. Kuehn, M. D., director
Division of Tuberculosis Control.
Miscellaneous activities:
Public health statistics—
Robert E. Serfling, director
Division of Public Health Statistics.
Hospital service—
Martha O'Malley, M. D., director
Division of Hospital and Institutional Services.
Standards, weights, and measures—
W. Forrest Moore, director
Division of Weights and Measures.

IOWA STATE DEPARTMENT OF HEALTH

Industrial hygiene:
Nunzio J. Carrozzo, M. D., acting medical director
Division of Industrial Hygiene.
Venereal disease control:
R. M. Sorensen, M. D., M. P. H., director
Division of Venereal Disease Control.

MAINE STATE DEPARTMENT OF HEALTH

Nutrition:
Ella Langer, M. D., director
Division of Maternal and Child Health.
Sanitation activities (all):
Elmer W. Campbell, D. P. H., director
Division of Sanitary Engineering.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH

Dental services:
A. L. Corbman, acting director
Division of Dental Health.

MISSISSIPPI STATE DEPARTMENT OF HEALTH

Public health education:
Cassie B. Smith, supervisor of health education
Division of Health Education.
Venereal disease control:
W. G. Hollister, M. D., supervisor
Venereal Disease Control Unit.

NEBRASKA STATE DEPARTMENT OF HEALTH

Communicable disease control, general:
Fred P. Long, M. D., director
Division of Communicable Disease Control.

NEVADA STATE DEPARTMENT OF HEALTH

Administration, general:
Accounting and financing—
Leah Giometti, fiscal officer
Communicable disease control, general:
Harold W. Bischoff, M. D., director
Division of Epidemiology and Local Health Administration.
Local health administration:
Harold W. Bischoff, M. D., director
Division of Epidemiology and Local Health Administration.
Tuberculosis control:
Harold W. Bischoff, M. D., director
Division of Epidemiology and Local Health Administration.

NEW YORK STATE DEPARTMENT OF HEALTH

Sanitation activities:
Garbage collection and disposal, and Housing control—
Albert Howd, associate sanitary engineer
Division of Sanitation.

NORTH DAKOTA STATE DEPARTMENT OF HEALTH

William M. Smith, M. D., M. P. H., Acting State Health Officer

Administration, general:
Accounting and financing, and Personnel administration—
William M. Smith, M. D., M. P. H.

Local health administration:
William M. Smith, M. D., M. P. H.
Division of Administration.

OREGON STATE DEPARTMENT OF HEALTH

Local health administration:
R. H. Wilcox, M. D., M. P. H., director
Division of County Health Units.

Malaria and mosquito control:
Curtis M. Everts, Jr., chief
Engineering Section.

Maternity, infant, and child (preschool) health services:
Maynard C. Shiffer, M. D., director
Maternal and Child Health Section.

Preventive medical services:
----------, director
Division of Preventive Medical Service.

Public health nursing:
A. Dyer, R. N., M. P. H., State public health nurse
Public Health Nursing Section.

Sanitation activities:
General sanitation—
Rodent control and control of garbage collection and disposal—
Shellfish sanitation—
Curtis M. Everts, Jr., chief
Engineering Section.

PENNSYLVANIA STATE DEPARTMENT OF HEALTH

Local health administration:
J. Moore Campbell, M. D., deputy secretary of health
Bureau of Health Conservation.

Sanitation activities:
Food sanitation—
Eugene Elgin, M. D., epidemiologist
Division of Epidemiology.
Sanitation of hotels and camps—
F. B. Watkins
Bureau of Sanitary Engineering.

PUERTO RICO DEPARTMENT OF HEALTH

Cancer services:
A. Acosta Velarde, M. D., director
Division of Hospitals.

Local health administration:
Ramon A. Rios, M. D., assistant director
Division of Public Health.

Public health education:
Catalina Lube, M. P. H., chief
Section of Public Health Education.

Sanitation activities:
Rodent control and control of garbage collection and disposal—
Jose A. Seraballs, M. P. H., chief
Municipal Sanitation Section.

Miscellaneous activities:
Medical care, general—
J. Alum, M. D., director
Division of Public Health.

RHODE ISLAND STATE DEPARTMENT OF HEALTH

Sanitation activities:
Food sanitation—
Chas. E. Hopkins, food and drug inspector
Food Section.
James J. Dillon, senior sanitary engineer
Sanitary Inspection Section.
Shellfish sanitation—
James J. Dillon, senior sanitary engineer
Sanitary Inspection Section.

Miscellaneous activities:
Recreational safety—
Frank M. Moody, acting recreational safety inspector
Bureau of Recreational Safety.
Hairdressing board—
May Gillogly, hairdressing examiner.

TENNESSEE STATE DEPARTMENT OF HEALTH

Miscellaneous activities:
Ruth R. Puffer, D. P. H., director
Statistical Service.

UTAH STATE DEPARTMENT OF HEALTH

Communicable disease control, general:
A. A. Jenkins, M. D. C. P. H., director
Division of Communicable Disease Control.

Sanitation activities (all):
Lynn M. Thatcher, director
Division of Public Health Engineering and Sanitation.

VIRGINIA STATE DEPARTMENT OF HEALTH

L. J. Roper M. D., State Health Commissioner.

Administration, general:
L. J. Roper, M. D., State Health Commissioner.

Communicable disease control, general:
Benjamin R. Allen, M. D., director
Bureau of Communicable Diseases.

Tuberculosis control:
Hospital services—
L. J. Roper, M. D., director
State Tuberculosis Sanatoria.

WEST VIRGINIA STATE DEPARTMENT OF HEALTH

N. H. Dyer, M. D., State Health Commissioner.

WYOMING STATE DEPARTMENT OF HEALTH

Sanitation activities:
Sanitation of water supplies and sewerage systems—
L. O. Williams, director
Division of Public Health Engineering and Sanitation.

DEATHS DURING WEEK ENDED SEPTEMBER 28, 1946

[From the Weekly Mortality Index, issued by the National Office of Vital Statistics]

	Week ended Sept. 28, 1946	Corresponding week, 1945
Data for 91 large cities of the United States:		
Total deaths	8,074	8,271
Average for 3 prior years	8,189	
Total deaths, first 39 weeks of year	349,587	345,612
Deaths under 1 year of age	725	642
Average for 3 prior years	624	
Deaths under 1 year of age, first 39 weeks of year	24,703	23,385
Data from industrial insurance companies:		
Policies in force	67,293,966	67,307,275
Number of death claims	11,199	12,511
Death claims per 1,000 policies in force, annual rate	8.7	9.7
Deaths claims per 1,000 policies, first 39 weeks of year, annual rate	9.6	10.2

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

REPORTS FROM STATES FOR WEEK ENDED OCTOBER 5, 1946

Summary

A decrease in the incidence of poliomyelitis was recorded for the seventh consecutive week, a decline being reported in all of the nine geographic divisions except New England. A total of 1,142 cases was reported, as compared with 1,296 last week, 877 for the corresponding week in 1944, and a 5-year (1941–45) median of 515. Of 34 States reporting 5 or more cases, 3 recorded no change, 14 an increase (364 to 433), while a decrease (785 to 591) occurred in the other 17 States. Only 6 States reporting currently more than 12 cases showed increases, as follows (last week's figures in parentheses): Massachusetts 33 (28), Illinois 142 (131), Minnesota 97 (96), South Dakota 18 (6), Nebraska 51 (34), Washington 29 (27).

The total for the year to date is 19,640, as compared with 10,296, 15,423, and 9,824, respectively, for the same periods of 1945, 1944, and 1943, and a 5-year median of 9,824. For the 19-week period since May 25, a total of 18,751 cases has been reported, as compared with 9,556 in 1945, 14,924 in 1944, and 9,277 in 1943.

Of the total of 351 cases of diphtheria (less than for the corresponding week of any of the past 5 years) as compared with 313 last week and a 5-year median of 514, 47 (including delayed reports) were reported in Washington (last week 5), 24 each in Massachusetts and Ohio, 22 in Texas, and 21 in North Carolina. The cumulative total is 11,787, as compared with 11,263 for the same period last year and 9,924 for the 5-year median. Cumulative figures for certain States showing considerable variation from last year's figures are as follows (figures for the corresponding period of last year in parentheses): *Increases*—Massachusetts 244 (168), New York 749 (478), Pennsylvania 569 (326), Ohio 691 (310), Illinois 417 (137), Minnesota 271 (189), Maryland 480 (326), Virginia 376 (255), Florida 247 (158); *decreases*—North Dakota 51 (105), Nebraska 60 (101), North Carolina 446 (648), South Carolina 198 (381), Georgia 213 (343), Tennessee 227 (315), Alabama 242 (417), Mississippi 280 (377), Texas 1,239 (1,646), Oregon 130 (218), California 857 (951).

Deaths recorded for the week in 93 large cities of the United States totaled 8,503, as compared with 8,186 last week, 8,316 and 8,290, respectively, for the corresponding weeks of 1945 and 1944, and a 3-year (1943–45) average of 8,331. The total for the year to date is 362,522, as compared with 358,242 for the corresponding period last year.

Telegraphic morbidity reports from State health officers for the week ended Oct. 5, 1946, and comparison with corresponding week of 1945 and 5-year median

In these tables a zero indicates a definite report, while leaders imply that, although none was reported, cases may have occurred.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended—		Median 1941–45	Week ended—		Median 1941–45	Week ended—		Median 1941–45	Week ended—		Median 1941–45
	Oct. 5, 1946	Oct. 6, 1945		Oct. 5, 1946	Oct. 6, 1945		Oct. 5, 1946	Oct. 6, 1945		Oct. 5, 1946	Oct. 6, 1945	
NEW ENGLAND												
Maine	0	1	0				108	4	6	3	0	0
New Hampshire	0	0	0				5		4	0	0	0
Vermont	0	1	0				23	1	1	0	1	0
Massachusetts	24	8	4				96	82	53	2	1	3
Rhode Island	2	0	0		8				1	0	0	0
Connecticut	1	0	0	1		1	10	5	5	2	0	2
MIDDLE ATLANTIC												
New York	13	3	9	[1] 3	[1] 5	[1] 5	77	20	48	6	8	12
New Jersey	1	0	1	3	3	4	14	14	24	2	3	3
Pennsylvania	14	12	6	1	1	1	122	81	60	5	3	4
EAST NORTH CENTRAL												
Ohio	24	21	18	6	3	4	40	9	18	5	3	3
Indiana	9	9	9	11	15	15	7	6	5	4	4	4
Illinois	6	6	10	2	1	6	11	49	19	4	13	8
Michigan [2]	4	9	8	1			6	60	30	5	2	2
Wisconsin	3	0	0		23	23	38	17	39	0	2	2
WEST NORTH CENTRAL												
Minnesota	3	5	5					3	4	0	1	1
Iowa	5	2	4				1	2	5	2	2	1
Missouri	1	5	3		2	2		5	5	2	3	3
North Dakota	1	1	2	10	8	5			6	0	0	0
South Dakota	0	0	3					2	2	0	0	0
Nebraska	0	0	1	5			3	3	3	1	0	0
Kansas	7	6	3	2	1	2	3	5	5	2	1	1
SOUTH ATLANTIC												
Delaware	0	1	1							0	0	0
Maryland [2]	10	19	11	5			5	1	4	2	0	3
District of Columbia	0	0	0				5	1	1	0	0	0
Virginia	18	19	19	149	153	107	14	3	12	5	3	3
West Virginia	8	14	10	1			15		4	0	4	1
North Carolina	21	68	68			2	35	6	6	1	2	1
South Carolina	0	24	25	22	177	177		3	7	0	3	1
Georgia	10	30	31	2	4	12	8	3	3	2	1	1
Florida	9	7	10	4	1	1	5		2	0	1	0
EAST SOUTH CENTRAL												
Kentucky	14	8	12		1	1	4	9	3	2	2	1
Tennessee	9	32	10	2		5	8	3	6	2	3	1
Alabama	8	30	30	13	21	21	5	1	3	0	1	1
Mississippi [2]	12	26	23							1	1	1
WEST SOUTH CENTRAL												
Arkansas	6	12	12	9	6	22	1	3	3	0	1	0
Louisiana	1	10	9	1	4	4	2	1	1	0	3	1
Oklahoma	7	8	10	37	13	22	1	10	3	0	0	0
Texas	22	59	53	823	499	499	25	22	15	2	8	7
MOUNTAIN												
Montana	0	4	2		13	2	20	45	6	0	0	0
Idaho	5	2	0	22	9	5	5	73	2	0	0	0
Wyoming	0	1	1	9					2	0	0	0
Colorado	5	11	8	50	12	15	4	4	7	0	0	0
New Mexico	3	3	1				12	1	1	0	0	0
Arizona	4	1	1	18	23	38	14		3	0	0	0
Utah [2]	0	0	0	3			14	4	5	0	0	0
Nevada	0	0	0		1	1				0	0	0
PACIFIC												
Washington	* 47	4	5				19	40	23	1	1	1
Oregon	2	3	3	4	1	4	9	10	21	0	0	1
California	12	29	19	2	13	13	56	126	77	3	10	6
Total	351	514	514	1,221	1,021	1,080	850	737	821	66	91	91
40 weeks	11,787	11,263	9,924	197,065	77,205	87,071	643,031	105,474	544,415	4,865	6,770	6,770

[1] New York City only.

[2] Period ended earlier than Saturday.

* Delayed reports included.

Telegraphic morbidity reports from State health officers for the week ended Oct. 5, 1946, and comparison with corresponding week of 1945 and 5-year median—Con.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever [2]		
	Week ended—		Median 1941–45	Week ended—		Median 1941–45	Week ended—		Median 1941–45	Week ended—		Median 1941–45
	Oct. 5, 1946	Oct. 6, 1945		Oct. 5, 1946	Oct. 6, 1945		Oct. 5, 1946	Oct. 6, 1945		Oct. 5, 1946	Oct. 6, 1945	
NEW ENGLAND												
Maine	3	3	2	32	26	13	0	0	0	1	0	0
New Hampshire	12	0	1	2	0	3	0	0	0	1	0	0
Vermont	2	3	2	0	3	3	0	0	0	0	0	0
Massachusetts	33	44	10	30	52	81	0	0	0	5	2	3
Rhode Island	10	0	0	3	3	3	0	0	0	0	0	0
Connecticut	6	6	10	12	11	11	0	0	0	0	4	1
MIDDLE ATLANTIC												
New York	86	80	80	108	105	105	0	0	0	1	7	10
New Jersey	10	34	22	15	23	38	0	0	0	4	4	3
Pennsylvania	10	41	41	55	78	89	0	0	0	2	7	14
EAST NORTH CENTRAL												
Ohio	44	27	27	121	141	141	0	0	0	2	6	6
Indiana	24	9	9	29	39	39	0	0	0	9	1	3
Illinois	142	60	35	39	66	79	0	0	0	4	1	5
Michigan [3]	54	8	16	71	65	65	0	0	0	0	2	3
Wisconsin	74	44	14	29	41	66	0	0	0	0	0	1
WEST NORTH CENTRAL												
Minnesota	97	17	17	18	13	38	0	0	0	0	0	0
Iowa	24	24	15	10	37	37	0	0	0	1	1	1
Missouri	65	12	9	13	11	22	0	0	0	3	2	6
North Dakota	10	0	1	6	6	5	0	0	0	0	0	0
South Dakota	18	3	1	4	5	8	0	0	0	0	0	0
Nebraska	51	10	6	5	7	7	0	1	0	1	0	0
Kansas	66	4	4	18	37	45	0	1	0	0	0	0
SOUTH ATLANTIC												
Delaware	1	1	1	5	3	3	0	0	0	1	1	0
Maryland [2]	5	9	9	7	45	30	0	0	0	2	1	3
District of Columbia	3	6	5	3	10	13	0	0	0	0	1	1
Virginia	3	14	10	45	70	44	0	0	0	2	4	4
West Virginia	2	3	2	26	37	62	0	0	0	1	3	6
North Carolina	8	6	7	27	59	77	0	0	0	2	2	4
South Carolina	0	5	3	3	11	11	0	0	0	0	2	5
Georgia	4	8	3	14	22	31	0	0	0	4	2	7
Florida	10	5	2	9	2	4	0	0	0	0	0	1
EAST SOUTH CENTRAL												
Kentucky	3	4	4	15	32	32	0	0	0	4	9	9
Tennessee	6	18	7	19	37	38	0	0	0	3	11	9
Alabama	7	3	3	9	13	30	1	0	0	0	0	1
Mississippi [2]	4	4	3	5	13	13	0	1	0	0	8	7
WEST SOUTH CENTRAL												
Arkansas	14	2	3	3	11	11	0	0	0	0	7	3
Louisiana	11	6	1	2	6	3	0	0	0	0	3	6
Oklahoma	10	1	1	6	17	16	0	0	0	1	4	4
Texas	24	20	8	30	66	35	0	0	0	8	10	10
MOUNTAIN												
Montana	4	13	1	8	11	10	0	0	0	2	1	0
Idaho	2	0	0	7	11	11	1	0	0	1	0	1
Wyoming	4	1	0	0	0	1	0	0	0	0	0	0
Colorado	28	6	4	6	19	19	0	0	0	0	2	1
New Mexico	2	1	1	3	5	5	0	0	0	0	5	5
Arizona	6	2	2	4	9	5	0	0	0	0	0	2
Utah [2]	6	15	5	6	6	10	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	0	0	0
PACIFIC												
Washington	29	7	7	25	11	29	0	0	0	0	1	0
Oregon	5	7	8	15	13	14	0	0	0	2	4	0
California	100	43	23	97	165	113	0	0	0	5	4	4
Total	1,142	639	515	1,019	1,473	1,536	2	3	4	72	122	144
40 weeks	19,640	10,296	9,824	91,923	142,255	106,353	295	286	635	3,297	3,942	4,496

[2] Period ended earlier than Saturday.

[3] Including paratyphoid fever reported separately, as follows: Massachusetts (salmonella infection) 4; Illinois 2; Georgia 2; Oklahoma 1; California 1.

Telegraphic morbidity reports from State health officers for the week ended Oct. 5, 1946, and comparison with corresponding week of 1945 and 5-year median—Con.

Division and State	Whooping cough			Week ended Oct. 5, 1946							
	Week ended—		Median 1941–45	Dysentery			Encephalitis, infectious	Rocky Mt. spotted fever	Tularemia	Typhus fever, endemic	Undulant fever
	Oct. 5, 1946	Oct. 6, 1945		Amebic	Bacillary	Unspecified					
NEW ENGLAND											
Maine	7	13	13								1
New Hampshire		15									
Vermont	6	9	20								2
Massachusetts	97	124	124							1	
Rhode Island	8	9	22								
Connecticut	40	20	29								
MIDDLE ATLANTIC											
New York	132	217	262	7	5		1	1		3	7
New Jersey	112	140	115								
Pennsylvania	127	137	137	1							5
EAST NORTH CENTRAL											
Ohio	64	149	149	13			1				6
Indiana	16	16	16			1			1		6
Illinois	70	68	136	2			2		1		7
Michigan [1]	208	135	136		1						
Wisconsin	144	38	151								5
WEST NORTH CENTRAL											
Minnesota	11	10	25	2							1
Iowa	9	1	7	2			1				39
Missouri	15	12	12								
North Dakota		1	11				1				
South Dakota		2	2								
Nebraska			6								
Kansas	10	11	21				1				1
SOUTH ATLANTIC											
Delaware	1										
Maryland [1]	19	36	57					1			1
District of Columbia	10	15	15								
Virginia	21	26	24			46		2	1		3
West Virginia	2	14	14								
North Carolina	68	54	70					1		2	1
South Carolina	4	70	57							1	
Georgia	6	31	10	2	2					5	3
Florida	12	5	11	3						7	1
EAST SOUTH CENTRAL											
Kentucky	11	22	22		4				1		
Tennessee	18	27	26	1					3	2	1
Alabama	13	14	15							4	2
Mississippi [1]										3	1
WEST SOUTH CENTRAL											
Arkansas	12	1	19						7	2	1
Louisiana		2								2	1
Oklahoma	2	1	4	1	1						
Texas	172	75	94	13	161	35			1	30	7
MOUNTAIN											
Montana	11	20	20								
Idaho	5	4									2
Wyoming			5								
Colorado	19	21	30								1
New Mexico	2	2	2		1	1					
Arizona	10	14	9			18					
Utah [1]	4	12	12						2		
Nevada											
PACIFIC											
Washington	12	17	23					1			1
Oregon	14	27	11	1							4
California	65	170	154	2	3		2			1	6
Total	1,589	1,807	2,306	50	178	101	9	6	17	63	116
Same week, 1945	1,807			37	485	263	28	6	14	117	95
Average, 1943–45	1,886			48	[2]32	183	18	[2]5	9	[2]117	
40 weeks: 1946	77,464			2,246	12,769	5,281	506	535	734	2,739	3,948
1945	99,343			1,469	20,556	8,997	511	443	603	3,791	3,702
Average, 1943–45	108,139		[2]141,736	1,504	17,128	7,467	533	[2]438	573	[2]3,199	

[1] Period ended earlier than Saturday.
[2] 5-year median, 1941–45.

Leprosy: Florida 1 case.

WEEKLY REPORTS FROM CITIES

City reports for week ended Sept. 28, 1946

This table lists the reports from 85 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

Division, State and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENGLAND												
Maine:												
Portland	0	0	------	0	2	0	1	1	1	0	0	------
New Hampshire:												
Concord	0	0	------	0	-------	0	1	0	1	0	0	------
Massachusetts:												
Boston	16	0	------	0	4	0	3	4	7	0	2	16
Fall River	0	0	------	0	1	0	0	0	2	0	0	2
Springfield	0	0	------	0	2	0	0	0	0	0	0	15
Worcester	1	0	------	0	2	0	2	10	1	0	0	16
Rhode Island:												
Providence	1	0	------	0	3	1	2	0	0	0	0	29
Connecticut:												
Bridgeport	0	0	------	0	2	0	0	0	0	0	0	2
Hartford	0	0	------	0	1	1	1	0	2	0	0	2
New Haven	1	0	------	0	6	0	1	0	2	0	0	3
MIDDLE ATLANTIC												
New York:												
Buffalo	4	0	------	0	1	0	2	0	5	0	0	4
New York	6	0	4	0	18	3	38	69	18	0	5	52
Rochester	0	0	------	0	1	0	0	2	5	0	0	2
Syracuse	0	1	------	0	-------	1	2	1	1	0	0	5
New Jersey:												
Camden	0	0	------	0	-------	0	0	0	0	0	1	1
Newark	0	0	------	0	1	0	2	0	4	0	0	14
Trenton	0	0	------	0	-------	0	2	1	0	0	0	6
Pennsylvania:												
Philadelphia	6	0	------	0	8	2	15	4	9	0	2	26
Pittsburgh	2	0	------	0	12	1	1	3	5	0	0	9
Reading	0	0	------	0	1	0	1	0	0	0	0	8
EAST NORTH CENTRAL												
Ohio:												
Cincinnati	1	0	------	0	-------	2	2	3	1	0	1	2
Cleveland	0	0	------	0	25	2	7	17	11	0	2	9
Indiana:												
Fort Wayne	0	0	------	0	1	0	2	1	0	0	0	5
Indianapolis	3	1	------	0	1	0	4	2	1	0	0	9
South Bend	0	0	------	0	-------	0	0	1	2	0	0	------
Terre Haute	0	0	------	0	-------	0	0	0	0	0	0	------
Illinois:												
Chicago	0	0	------	0	6	2	20	38	0	0	1	51
Springfield	1	0	------	0	-------	0	1	3	0	0	0	------
Michigan:												
Detroit	2	0	1	2	1	1	6	17	14	0	0	57
Flint	0	0	------	0	-------	0	3	0	4	0	0	14
Grand Rapids	0	0	------	0	2	0	0	3	1	0	1	5
Wisconsin:												
Kenosha	0	0	------	0	-------	0	0	4	1	0	0	3
Milwaukee	0	0	------	0	2	0	4	12	7	0	0	78
Racine	0	0	------	0	-------	0	0	2	1	0	0	------
Superior	0	0	------	0	-------	0	0	1	2	0	0	------
WEST NORTH CENTRAL												
Minnesota:												
Duluth	0	0	------	0	-------	0	1	6	0	0	0	4
Minneapolis	1	0	------	0	2	0	2	10	0	0	0	1
St. Paul	1	0	------	0	-------	0	2	5	2	0	0	6
Missouri:												
Kansas City	0	0	------	0	-------	0	4	16	5	0	0	3
St. Joseph	0	0	------	0	-------	0	0	0	3	0	0	4
St. Louis	2	0	2	0	2	0	4	15	2	0	1	4

City reports for week ended Sept. 28, 1946—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
WEST NORTH CENTRAL—continued												
Nebraska:												
Omaha	0	0	------	0	-------	0	0	19	1	0	0	------
Kansas:												
Topeka	1	0	------	0	-------	0	0	4	2	0	0	------
Wichita	0	0	------	0	1	0	1	3	0	0	0	------
SOUTH ATLANTIC												
Delaware:												
Wilmington	0	0	------	0	-------	0	3	3	1	0	0	------
Maryland:												
Baltimore	1	0	------	0	1	0	7	1	3	0	0	13
Cumberland	0	0	------	0	-------	0	1	0	0	0	0	------
Frederick	0	0	------	0	-------	0	0	0	0	0	0	------
District of Columbia:												
Washington	0	0	------	0	4	0	5	2	4	0	1	3
Virginia:												
Lynchburg	0	0	------	0	-------	0	0	0	0	0	0	------
Richmond	1	0	------	0	4	0	2	0	3	0	1	1
Roanoke	3	0	------	0	-------	0	0	1	2	0	0	------
West Virginia:												
Wheeling	0	0	------	0	-------	0	0	0	2	0	0	2
North Carolina:												
Raleigh	0	0	------	0	-------	0	0	1	0	0	1	2
Wilmington	0	0	------	0	-------	0	0	1	0	0	0	------
Winston-Salem	0	0	------	0	8	0	0	0	1	0	0	6
South Carolina:												
Charleston	0	0	6	0	1	0	0	0	0	0	0	------
Georgia:												
Atlanta	1	0	1	0	-------	0	2	1	1	0	0	------
Brunswick	0	0	------	0	-------	0	0	0	0	0	0	------
Savannah	0	0	------	0	3	0	1	0	1	0	0	------
Florida:												
Tampa	2	0	1	1	-------	2	1	1	2	0	1	------
EAST SOUTH CENTRAL												
Tennessee:												
Memphis	0	0	------	0	1	0	7	3	2	0	0	6
Nashville	0	0	------	1	-------	0	0	0	0	0	0	------
Alabama:												
Birmingham	0	0	3	1	-------	0	3	2	0	0	0	------
Mobile	1	0	------	0	-------	0	2	2	0	0	0	------
WEST SOUTH CENTRAL												
Arkansas:												
Little Rock	0	0	------	0	1	0	0	3	0	0	0	1
Louisiana:												
New Orleans	1	0	------	0	1	0	9	3	1	0	0	1
Shreveport	0	0	------	0	-------	0	5	0	0	0	0	------
Texas:												
Dallas	2	0	------	0	-------	0	2	2	0	0	0	2
Galveston	0	0	------	0	-------	0	0	0	0	0	0	------
Houston	0	0	------	0	1	0	2	2	1	0	2	------
San Antonio	0	0	------	0	1	0	4	2	0	0	0	------
MOUNTAIN												
Montana:												
Billings	0	0	------	0	-------	0	0	0	0	0	0	------
Great Falls	0	0	------	0	-------	0	1	2	0	0	0	------
Helena	0	0	------	0	-------	0	0	0	0	0	0	------
Missoula	0	0	------	0	-------	0	0	0	0	0	0	------
Idaho:												
Boise	0	0	------	0	-------	0	0	0	2	0	0	------
Colorado:												
Denver	0	0	5	0	2	1	7	8	3	0	0	2
Utah:												
Salt Lake City	0	0	------	0	2	0	0	4	1	0	0	1

City reports for week ended Sept. 28, 1946—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
PACIFIC												
Washington:												
Seattle	4	0	------	0	1	0	3	5	1	0	0	9
Spokane	0	0	------	0	------	0	0	7	2	0	0	2
Tacoma	0	0	------	0	1	0	0	0	0	0	0	1
California:												
Los Angeles	0	0	2	0	10	1	3	30	10	0	1	12
Sacramento	0	0	------	0	------	0	0	0	1	0	0	2
San Francisco	0	0	------	0	2	0	3	6	6	0	0	5
Total	65	2	25	5	152	20	210	369	173	0	23	538
Corresponding week, 1945	51	------	15	8	181	------	223	------	312	0	20	722
Average, 1941–45	64	------	38	[1] 10	[2] 164	------	[1] 243	------	334	0	27	837

[1] 3-year average, 1943–45.
[2] 5-year median, 1941–45.

Dysentery, amebic.—Cases: New York 1; Chicago 2; San Francisco 1.
Dysentery, bacillary.—Cases: Buffalo 2; Los Angeles 1.
Dysentery, unspecified.—Cases: Baltimore 1; San Antonio 4.
Leprosy.—Cases: New York 1.
Typhus fever, endemic.—Cases: Boston 1 (presumably murine, not yet proved); New York 1; Philadelphia 1; Atlanta 1; Tampa 1; Nashville 2; Little Rock 1; New Orleans 1; Houston 3; San Antonio 2.

Rates (annual basis) per 100,000 population, by geographic groups, for the 85 cities in the preceding table (estimated population, 1943, 33,898,600)

	Diphtheria case rates	Encephalitis, infectious, case rates	Influenza		Measles case rates	Meningitis, meningococcus, case rates	Pneumonia death rates	Poliomyelitis case rates	Scarlet fever case rates	Smallpox case rates	Typhoid and paratyphoid fever case rates	Whooping cough case rates
			Case rates	Death rates								
New England	49.9	0.0	0.0	0.0	60	5.3	28.9	39.4	42	0.0	5.3	223
Middle Atlantic	8.3	0.5	1.9	0.0	19	3.2	29.2	37.0	22	0.0	3.7	59
East North Central	4.4	0.6	0.6	1.3	24	4.4	31.0	65.7	28	0.0	3.2	147
West North Central	10.1	0.0	4.0	0.0	10	0.0	28.2	156.9	30	0.0	2.0	44
South Atlantic	13.4	0.0	13.4	1.7	35	3.3	36.8	18.4	33	0.0	6.7	45
East South Central	5.9	0.0	17.7	11.8	6	0.0	70.8	41.3	12	0.0	0.0	35
West South Central	8.6	0.0	0.0	0.0	11	0.0	63.1	34.4	6	0.0	5.7	11
Mountain	0.0	0.0	43.5	0.0	35	8.7	69.4	121.4	52	0.0	0.0	26
Pacific	6.3	0.0	3.2	0.0	22	1.6	14.2	75.9	32	0.0	1.6	49
Total	10.0	0.3	3.9	0.8	23	3.1	32.4	56.9	27	0.0	3.5	83

PLAGUE INFECTION IN KERN COUNTY, CALIF.

Under date of October 1, 1946, plague infection was reported proved, on September 30, in a pool of 97 lice from 24 ground squirrels, *C. beecheyi*, shot 1 mile south and 2 miles east of El Tejon School, Kern County, Calif., and received at the laboratory on September 11.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended September 14, 1946.—During the week ended September 14, 1946, cases of certain communicable diseases were reported by the Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Chickenpox		4		17	65	22	13	19	42	182
Diphtheria		1		49	5	2	1	1	3	62
Dysentery:										
Amebic					1					1
Bacillary					1					1
German measles		2			7		3	1	3	16
Influenza		6			7				6	19
Measles		7		30	37	9	42	15	3	143
Meningitis, meningococcus					1					1
Mumps				22	81	19	57	13	40	232
Poliomyelitis	11	1	13	225	34	6	3	6	2	301
Scarlet fever	2	1	4	26	49	11	5	3	7	108
Tuberculosis (all forms)		1	7	115	50	14	6	52	23	268
Typhoid and paratyphoid fever		1	1	27	4				2	35
Undulant fever			1	3	4					8
Venereal diseases:										
Gonorrhea	9	18	10	85	129	62	29	65	89	496
Syphilis	2	5	6	100	84	10	19	12	48	286
Other forms									3	3
Whooping cough		20	2	52	82	1		3	5	165

WORLD DISTRIBUTION OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, International Office of Public Health, Pan American Sanitary Bureau, health section of the League of Nations, UNRRA, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases]

NOTE.—Since many of the figures in the following tables are from weekly reports, the accumulated totals are for approximate dates.

Place		January-July 1946	August 1946	September 1946—week ended—			
				7	14	21	28
ASIA							
Burma	C	1,215	35				
Bassein	C	28	1				
Moulmein	C	54	21				
Rangoon	C	22	1				
Ceylon	C	75	6				
China:							
Anhwei Province	C	612	1,053				
Chekiang Province	C	1,103	1,233				
Formosa, Island of	C	806					
Fukien Province	C	629	215				
Foochow	C	441	204				
Honan Province	C	491	392				
Hopeh Province	C	43	160		[1] 3		
Hunan Province	C	488	623		[1] 2		
Hupeh Province	C	175	45				
Ichang Province	C	147					

[1] For the period Sept. 1–10, 1946.

CHOLERA—Continued

Place		January–July 1946	August 1946	September 1946—week ended— 7	14	21	28
ASIA—continued							
China—Con.							
Kiangsi Province	C	146	1,335				
Kiangsu Province	C	[2] 6,224	1,841		[1] 118		
Shanghai	C	[2] 3,455	933		[1] 96		
Kwangsi Province	C	707	94				
Kwangtung Province	C	2,772	1,095				
Canton	C	1,931	17				
Hong Kong	C	437	55	3	2	1	2
Kweichow Province	C	8					
Macao, Island of	C				1	1	
Shantung Province	C		14				
Szechwan Province	C	66	2				
Yunnan Province	C	12					
India	C	54,071	2,468				
Calcutta	C	1,647	37	18	30	20	
Chittagong	C	8					
Madras	C	3					
India (French)	C	1					
Indochina (French):							
Cambodia	C	271					
Cochinchina	C	819					
Bien Hoa	C	24					
Chaudok	C	21					
Mytho	C	142					
Saigon-Cholon	C	35					
Vinh-long	C	7					
Japan	C	364	626				
Korea (Chosen)	C	P	[3] 11,351				
Malay States	C	211	23				
Manchuria	C	15,284	113				
Siam (Thailand)	C	3,051	206				
Bangkok	C	397	17	4	8	5	6
Straits Settlements: **Singapore**	C	[4] 1					

[2] Includes imported cases.
[3] From the beginning of the outbreak in April or May, to approximately Sept. 1, 1946.
[4] Imported.

PLAGUE

[C indicates cases; P, present]

AFRICA							
Algeria	C	2					
Bechuanaland	C	10					
Belgian Congo	C	[1] 7	[2] 19				
British East Africa:							
Kenya	C	24	3		2		
Uganda	C	12					
Egypt	C	175	38	1	1		1
Alexandria	C	109	16	1			
Ismailiya	C	22	5				
Matariya	C	2	10				
Port Said	C	10	6		1		1
Suez	C	32					
Libya: Tripolitania—Plague-infected rats		1					
Madagascar	C	137	3		[3] 1		
Union of South Africa	C	1	1				
ASIA							
Burma	C	983	119	7			
Bassein	C	21	1				
Rangoon	C	139	7				
China:							
Chekiang Province	C	412	60				
Formosa, Island of	C	9					
Fukien Province	C	4,139	139				
Amoy	C	295					
Foochow	C	1,368	17				
Kiangsi Province	C	185	71				
Kwangtung Province	C	409	6				
Yunnan Province	C	97	36				
India	C	12,332	461				
Indochina (French): Cochinchina	C	4	44				
Java	C	31	1				
Manchuria	C	[4] 52					
Palestine	C	16					
Siam (Thailand)	C	19	3				

[1] Includes 2 suspected cases.
[2] Includes 13 cases of pneumonic plague.
[3] For the period Sept. 1–10, 1946.
[4] Pneumonic plague.

PLAGUE—Continued

Place		January–July 1946	August 1946	September 1946—week ended— 7	14	21	28
EUROPE							
Great Britain: Malta, Island of	C	6					
Portugal: Azores	C	[5] 15					
NORTH AMERICA							
Canada.[6]							
SOUTH AMERICA							
Bolivia:							
Chuquisaca Department	C	1					
Santa Cruz Department	C	12					
Tarija Department—Plague-infected rats		P					
Ecuador:							
Chimborazo Province	C	2					
Loja Province	C	6	4				
Peru:							
Lambayeque Department	C	11					
Lima Department	C	19					
Piura Department	C	15					
OCEANIA							
Hawaii Territory: Plague-infected rats		[7] 5					

[5] Includes 2 cases of pneumonic plague.

[6] The imported suspected case previously reported has not been confirmed. Under date of Sept. 14, 1946, plague infection was reported in a pool of fleas from squirrels in Alsask and in a pool of fleas from squirrels in Superb, Saskatchewan.

[7] Plague infection was also proved positive in Hawaii Territory on Feb. 5, 1946, in a pool of 29 rats, and on Apr. 13, 1946, in a pool of 54 fleas and 15 lice recovered from 7 rats and 22 mice. Under date of July 3, 1946, plague infection was reported in a pool of 50 fleas recovered from 7 rats and 46 mice, and in a pool of 51 fleas recovered from 10 rats. Under date of July 17, 1946, plague infection was reported in a pool of 48 fleas recovered from 22 rats, and in a pool of 56 fleas recovered from 33 rats. Under date of Sept. 12, 1946, plague infection was reported in a pool of 48 fleas recovered from 22 rodents.

SMALLPOX

[C indicates cases; P, present]

AFRICA							
Algeria	C	183					
Basutoland	C	27	19				
Belgian Congo	C	[1] 1,236	[1] 1,064	[1] 486			
British East Africa:							
Kenya	C	626	97	19	18		
Nyasaland	C	259	59	8	13		
Tanganyika	C	4,106	811				
Uganda	C	509	20	1			
Cameroon (French)	C	67	1				
Dahomey	C	1,230	181				
Egypt	C	374	5				
Eritrea	C	[2] 2					
French Equatorial Africa	C	155	6				
French Guinea	C	795	26				
French West Africa: Dakar District	C	40					
Gambia	C	7					
Gold Coast	C	777	115		15		
Ivory Coast	C	1,045	116				
Liberia	C				P		
Libya	C	116	21	31	45		
Madagascar	C		1				
Mauritania	C	1					
Morocco (French)	C	1,837	25				
Morocco (Int. Zone)	C	175					
Morocco (Spanish)	C	5					
Mozambique	C	4					
Nigeria	C	5,414					
Niger Territory	C	427	9				
Rhodesia:							
Northern	C	311	35	5	1		
Southern	C	2	2				
Senegal	C	95					
Sierra Leone	C	397					
Somaliland (Italian)	C	1					
Sudan (Anglo-Egyptian)	C	43	8	1			
Sudan (French)	C	1,882	43				
Togo (French)	C	158	55				
Tunisia	C	33					
Union of South Africa	C	204	P	P	P	P	

[1] Includes alastrim.

[2] Alastrim.

SMALLPOX—Continued

Place		January–July 1946	August 1946	September 1946—week ended— 7	14	21	28
ASIA							
Arabia	C	1					
Burma	C	1,586	93				
Ceylon	C	346	1				
China	C	675	80	31	29	22	31
India	C	54,466	1,327				
India (French)	C	3					
Indochina (French)	C	1,597	49				
Iran	C	24					
Iraq	C	5		3			
Japan	C	17,606	41				
Malay States	C	484	44	15	24	13	
Palestine	C	[3] 2					
Rhodes, Island of	C	[4] 1					
Siam (Thailand)	C	15,491	752				
Straits Settlements	C	[3] 31	20	1	14	1	1
Syria and Lebanon	C	8					
Turkey (See Turkey in Europe).							
EUROPE							
Czechoslovakia	C	24					
France	C	15					
Germany	C	1					
Gibraltar	C	[4] 3					
Great Britain:							
England and Wales	C	[5] 53					
Malta, Island of	C	7					
Scotland	C	2					
Greece	C	114					
Italy	C	462	21				
Portugal	C	38	8				
Spain	C	[1] 5					
Turkey	C	16					
Yugoslavia	C	1					
NORTH AMERICA							
Canada	C	2					
Guatemala	C	55					
Honduras	C	4					
Mexico	C	333					
SOUTH AMERICA							
Argentina	C	67	1				
Bolivia	C	452					
Brazil	C	[1] 22	[1] 7				
Colombia	C	587	74				
Ecuador	C	42	5				
Paraguay	C	252					
Peru	C	381					
Uruguay	C	36	4				
Venezuela	C	[1] 728	[1] 104				
OCEANIA							
Hawaii Territory	C	[6] 1					

[1] Includes alastrim.
[3] Includes 1 imported case.
[4] Imported.
[5] Includes imported cases.
[6] Off-shipping.

TYPHUS FEVER *

[C indicates cases; P, present]

Place		January–July 1946	August 1946	September 1946—week ended— 7	14	21	28
AFRICA							
Algeria	C	603					
Basutoland	C	6	1				
Belgian Congo [1]	C	2,217	51	37			
British East Africa: Kenya [1]	C	21					
Egypt	C	1,318	12	6			
Eritrea	C	465	93	19			
French West Africa: Dakar District	C	7					
Libya	C	77	6				
Morocco (French)	C	3,553	77				
Morocco (Int. Zone)	C	52	1				
Morocco (Spanish)	C	11	2				
Nigeria	C	26					
Rhodesia, Northern	C	1					
Sierra Leone [1]	C	3					
Tunisia [1]	C	183					
Union of South Africa [1]	C	225	P	P	P	P	
ASIA							
Arabia [2]	C	1	1				
Burma [2]	C	1					
China [1]	C	70	4		1		
India	C	284					
Indochina (French)	C	9	52				
Iran	C	137					
Iraq	C	156	17	3		5	
Japan	C	30,446	213				
Malay States	C	3					
Palestine [2]	C	41					
Straits Settlements	C	1					
Syria and Lebanon	C	78					
Trans-Jordan	C	21					
Turkey (See Turkey in Europe).							
EUROPE							
Albania	C	88					
Austria	C	34					
Belgium [1]	C	4					
Bulgaria	C	946	8				
Czechoslovakia [1]	C	766	19				
France [1]	C	15					
Germany	C	1,859	8				
Great Britain:							
England and Wales	C	1					
Malta and Gozo [1]	C	13	1	1			
Greece [1]	C	314	71	44	38	30	
Hungary	C	794	25		5	5	
Italy	C	8					
Netherlands [1]	C	15					
Poland	C	3,058	129	10	9		
Portugal	C	4	2			1	
Rumania	C	7,335	60	30			
Spain	C	10	2				
Sweden [2]	C	1					
Switzerland [2]	C	1					
Turkey	C	1,103	28	4	8	14	
Yugoslavia	C	2,225					
NORTH AMERICA							
Costa Rica [2]	C	53	8	1	3		
Cuba [2]	C	19	1				
Guatemala	C	433					
Jamaica [2]	C	24	7				
Mexico	C	956					
Panama (Republic)	C	2					
Puerto Rico [2]	C	63	17	2	2		
Virgin Islands [2]	C	2					

* Reports from some areas are probably murine type, while others probably include both murine and louse-borne types.

[1] Includes cases of murine type.

[2] Murine type.

TYPHUS FEVER—Continued

Place		January-July 1946	August 1946	September 1946—week ended— 6	13	20	27
SOUTH AMERICA							
Argentina	C	4	1				
Bolivia	C	212					
Chile	C	328					
Colombia	C	205					
Curacao [2]	C		1				
Ecuador [1]	C	647	118				
Paraguay	C	1					
Peru	C	580					
Venezuela [1]	C	73	15				
OCEANIA							
Australia [2]	C	99	1				
Hawaii Territory [2]	C	24	12				

[1] Includes cases of murine type.
[2] Murine type.

YELLOW FEVER

[C indicates cases; D, deaths]

AFRICA							
Nigeria:							
Ibadan	C	1					
Ilesha	C		[1] 2				
Ilorin	C	1					
Kafanchan	C	2					
Ogbomosho	C	41					
Oshogbo	C		[1] 1				
Sapele	C		[1] 5				
Sierra Leone: Pujehan	C	1					
SOUTH AMERICA							
Bolivia: Santa Cruz Department	D	[2] 40					
Brazil: Para State	D	1					
Colombia:							
Caqueta Territory	D	1					
Magdalena Department	D	1					
Santander Department	D	6					
Peru: San Martin Department	D	1					
Venezuela:							
Tachira State	C	4					
Trujillo State	C	4					
Zulia State	C	4					

[1] Suspected.
[2] Diagnosis confirmed in 14 cases and 10 deaths.