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## CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES <sup>1</sup>

January 27–February 23, 1935

The prevalence of certain important communicable diseases, as indicated by weekly telegraphic reports from State health departments to the United States Public Health Service, is summarized in this report. The underlying statistical data are published weekly in the Public Health Reports, under the section entitled "Prevalence of Disease."

*Influenza.*—The number of cases of influenza reported for the 4 weeks ended February 23 was 35,391, which was nearly 3 times last year's figure for the corresponding period. During the preceding period this ratio was about 4, the reported number of cases being 34,610.

Table 1 shows by geographic areas the number of cases reported for recent weeks in comparison with the experience of the 3 preceding years. From the table it is evident that the epidemiclike movement was, in general, from east to west. The peak was reached in the Atlantic coast regions during the first half of January, while in the remainder of the country it was not reached until February. However, although the incidence was still relatively high in the West, by the end of the period under consideration a sharp decline was evident. The number of cases reported during this outbreak is much less than the number reported during the epidemic of 1932–33.

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<sup>1</sup> From the Office of Statistical Investigations, U. S. Public Health Service. The numbers of States included for the various diseases are as follows: Typhoid fever, 48; poliomyelitis, 48; meningococcus meningitis, 48; smallpox, 48; measles, 47; diphtheria, 48; scarlet fever, 48; influenza, 44 States and New York City. The District of Columbia is counted as a State in these reports. These summaries include only the 8 important communicable diseases for which the Public Health Service receives regular weekly reports from the State health officers.

TABLE 1.—Number of influenza cases reported in different geographic sections during recent weeks of the winter of 1934-35 and during corresponding weeks of the 3 preceding winters<sup>1</sup>

Year	Week ended—									
	Dec. 30	Jan. 5	Jan. 12	Jan. 19	Jan. 26	Feb. 2	Feb. 9	Feb. 16	Feb. 23	Mar. 2
<b>Total:</b>										
1934-35.....	3,975	6,965	10,023	7,749	9,673	10,252	9,530	8,591	7,018	5,727
1933-34.....	1,158	2,015	2,804	1,943	2,201	2,714	2,819	3,825	3,683	3,341
1932-33.....	62,323	64,318	40,067	24,663	14,839	10,880	7,304	5,731	4,637	3,643
1931-32.....	1,122	1,242	1,550	1,931	2,553	5,048	6,664	6,395	9,008	13,073
<b>New England and Middle Atlantic:</b>										
1934-35.....	519	641	622	288	123	144	83	73	63	95
1933-34.....	55	83	63	65	99	62	71	53	48	90
1932-33.....	1,080	2,127	3,181	2,375	1,521	1,669	505	257	233	192
1931-32.....	52	76	137	257	563	208	171	293	476	774
<b>East North Central:</b>										
1934-35.....	500	394	1,436	578	673	1,195	416	586	335	573
1933-34.....	204	143	250	163	166	301	236	329	346	284
1932-33.....	5,513	8,947	6,683	3,539	2,226	1,018	665	568	685	345
1931-32.....	106	89	180	106	199	194	470	670	1,762	1,413
<b>West North Central:</b>										
1934-35.....	117	556	442	725	530	626	765	898	531	533
1933-34.....	15	27	30	46	69	73	97	336	261	226
1932-33.....	8,980	4,313	4,234	3,655	1,177	1,045	114	269	74	85
1931-32.....	10	20	14	12	70	163	305	540	302	188
<b>South Atlantic:</b>										
1934-35.....	1,967	3,514	4,861	2,851	3,586	2,783	2,393	2,096	1,489	1,353
1933-34.....	403	1,102	809	926	1,088	1,211	943	1,232	1,271	1,016
1932-33.....	7,904	13,191	9,153	7,484	5,484	4,042	3,586	3,104	2,622	1,831
1931-32.....	540	608	577	652	708	743	850	871	1,401	1,689
<b>East and West South Central:</b>										
1934-35.....	713	1,558	1,859	2,038	3,122	3,150	4,400	3,998	3,707	2,472
1933-34.....	374	568	1,542	665	677	935	1,317	1,711	1,567	1,531
1932-33.....	27,713	27,720	13,094	4,909	2,945	1,954	1,766	1,122	798	907
1931-32.....	178	256	383	296	373	1,050	1,710	1,655	2,562	3,775
<b>Mountain and Pacific:</b>										
1934-35.....	159	302	803	1,269	1,639	2,354	1,473	940	893	701
1933-34.....	107	128	110	78	102	132	155	164	190	194
1932-33.....	11,183	8,020	3,762	2,701	1,486	1,152	668	411	355	293
1931-32.....	236	193	259	608	650	2,690	2,158	2,366	2,505	5,154

<sup>1</sup> Similar tables appeared in the Public Health Reports for Jan. 18, 1935, p. 72, and Feb. 15, p. 204.<sup>2</sup> The following numbers of cases not included here were reported in Kansas in response to a special inquiry: Week ended Dec. 31, 1932, 27,779; Jan. 7, 1933, 7,923; Jan. 14, 2,027.<sup>3</sup> Included 2,012 cases, an accumulated number, from New Mexico.

*Meningococcus meningitis*.—The number of cases of meningococcus meningitis rose from 307 for the preceding 4-week period to 525 for the 4 weeks ended February 23—a figure somewhat above the seasonal expectancy. The current incidence was 2.3 times that for the corresponding period last year and 1.7 times the incidence in 1933 and 1932. Each geographic area, except the New England, reported an increase over the corresponding period last year and also over the preceding 4 weeks. The greatest increases over last year were reported from the South Atlantic and East South Central sections. In the former area the number of cases (98) was almost four times that for this period last year, while in the latter area the number (81) was more than five times last year's figure. Other regions reported increases ranging from 40 percent in the West South Central to 70 percent in the Pacific area. The New England States reported a slight decrease.

**Measles.**—The incidence of measles was considerably above the usual seasonal expectancy. For the 4 weeks ended February 23 the number of cases totaled 91,667—approximately 37,000 more than were reported for the preceding 4-week period. The current figure did not quite reach the level of the corresponding period last year, when the disease was unusually prevalent (and the incidence reached the peak of 1926); but it was about 40,000 above the average for recent years. While each section of the country reported an increase over the preceding 4-week period, the highest incidence was confined to the East and West North Central areas, where the number of cases was more than twice that for last year, and the Middle Atlantic States, where an increase of 50 percent was noted. In other areas the incidence was below that of last year but above the average for preceding years.

**Smallpox.**—The number of cases of smallpox for the current period was 883, as compared with 607 last year. Texas reported 211, Nebraska 175, Washington (State) 153, Wisconsin 93, Wyoming 33, South Dakota 19, and Montana 13—a total of 697 cases, as compared with 381 for the corresponding period in 1934. The remaining cases were distributed among the other States, the number (186) being about 65 percent of that for the same States last year. At this time in 1934 an outbreak of smallpox was present in Wisconsin, and the number of cases in that State, as well as in the whole West North Central area, was then higher than for the current period; but for the other areas represented by the above-mentioned States the figures for the current period were considerably in excess of those for last year. The New England and Middle Atlantic regions remained free from the disease, and the South Atlantic States reported only 3 cases.

**Diphtheria.**—The current incidence of diphtheria was the lowest for this period in the 7 years for which data are available. There were 2,874 cases of diphtheria reported for the current 4-week period. In 1934, 1933, and 1932 the numbers of cases reported for this period were 3,388, 3,187, and 5,139, respectively. Compared with the corresponding period last year, the East North Central area reported a 35 percent increase, the Pacific section a 20 percent increase, the New England States practically the same incidence, and all other areas significant decreases.

**Typhoid fever.**—The number of cases of typhoid fever reported for the 4 weeks ended February 23 was 521, not widely different from the numbers reported for the corresponding period of 1933 and 1934. The West North Central, South Atlantic, and Mountain and Pacific sections reported about a 40 percent decrease from last year's figures for the corresponding period while in the remainder of the regions the incidence was approximately the same as that for last year.

*Poliomyelitis*.—As would be expected at this season, the number of cases of poliomyelitis dropped, from 118 for the preceding 4-week period to 98 for the current 4 weeks. The current incidence was about 1.5 times that for the corresponding period last year and almost twice that for 1933. In the Pacific area, which includes California, where the disease has been most prevalent, the number of cases (48) was 1.8 times that for the same period last year; in the West South Central section, 12 cases were reported; while in other regions the incidence was about on a level with that for last year.

*Scarlet fever*.—For the country as a whole the number of cases of scarlet fever reported for the current period was 27,838, the highest incidence for this period in recent years. Very appreciable increases over last year were reported from the East North Central, South Atlantic, and Mountain section. In the West North Central and Pacific regions the incidence was practically on a level with that of last year, and the other areas reported significant decreases.

*Mortality, all causes*.—The average mortality rate from all causes in large cities, as reported by the Bureau of the Census, was 12.6 per 1,000 inhabitants (annual basis). For the corresponding period in the 3 preceding years the rate was 12.7, 12.2, and 12.3, respectively. The current mortality compares very favorably with recent years. During the current period the minor epidemic of influenza, which started in the East, had spread into the central and western sections of the country; but, as in the East, it was of a mild type and apparently did not materially affect the death rate.

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## YELLOW FEVER

### Some Recent Contributions to Our Knowledge of the Prevalence and Control of the Disease

The following excerpts regarding the occurrence of yellow fever and the recent advances in knowledge relating to this disease are taken from issues of the Boletín de la Oficina Sanitaria Panamericana and other sources, and are printed here for the information of quarantine officers and others interested in the subject. A résumé of the item concerning Colombia was printed in the Public Health Reports for January 25, 1935, but is reprinted here in order to bring together recent information in one article.

*Colombia*.—Commenting on the new decree on viscerotomy in Colombia, Bevier says that its purpose is to clear up the situation created by the rumors of epidemics of yellow fever which arise from time to time.

In 1923 there was an epidemic in Bucaramanga, in which the diagnosis of yellow fever was established with certainty only after and by

means of the protection test. In 1929 there was a serious epidemic in Socorro clearly due to yellow fever and another in Guadalupe (Santander) the nature of which was uncertain. In 1930 and 1931 sporadic cases of fever accompanied by jaundice occurred in the environs of Santa Marta, which, on investigation, were found not to be yellow fever.

In 1932 the results of the immune reactions verified in a large number of persons in various sections of Santander, North Santander, and Boyaca indicated that yellow fever was endemic in certain areas of these regions or that it had recently existed in them, while other zones seemed to be free.

The attention of the authorities and the public has been directed several times to Muzo, because of the suspicious epidemics which occur there. In January 1934 there were several cases; in March there were 5 cases, 4 of them fatal, and anatomo-pathological examination of 1 case proved positive for yellow fever, while the blood of a convalescent gave a positive reaction. In June there was another small epidemic, and the diagnosis was confirmed by several positive blood samples and two autopsies. In January and February 1933, a small epidemic occurred in the town of Caparrapi, and another occurred in June; and at the beginning of 1934 several deaths occurred which, from certain indications, were attributable to yellow fever.

Apparently the disease has been spreading gradually toward the west, and the prospect is alarming, because it may reach Puerto Lievano, Guaduas, Utica, or Villeta, localities where the population is probably nonimmune. At present there is a suspicious epidemic in the vicinity of Restrepo (Meta).<sup>1</sup> Four physicians from the National Department of Health are now studying it, and the city of Villavicencio has designated several health inspectors to control it.

Obviously yellow fever is still a problem in Colombia, and, perhaps, a menace, the importance of which is not realized by the health authorities or the public. The National Department of Health is organizing a service to study the question, which will be a part of the rural sanitation section. (Bevier, G.: *Rev. Hig.*, October 1934, p. 369.)

*Occurrence in West Africa.*—Beeuwkes and Mahaffy present the results of protection tests in 7,580 sera collected in 181 communities from 8 colonies of West Africa (Nigeria, Gold Coast, Sierra Leone, Gambia, Liberia, Dahomey, Niger, and Sudan). The disease was much more frequent than was believed; approximately 25 percent of all the examples studied were positive. Few communities had escaped the disease during the present generation. Almost all the zone investigated was infectible, and positive sera were obtained even in the natives of the Jos mesa at an altitude of 1,300 meters.

<sup>1</sup> Four deaths from yellow fever were confirmed in this area from Nov. 1, 1934, to Jan. 12, 1935.

The studies carried on in the French colonies north of Nigeria indicate that epidemics occur in that semiarid region, but the Sahara Desert forms an efficient barrier against the infection. Yellow fever is rarely recognized in natives, and the relatively small number of cases in Europeans indicates neither the true frequency nor the distribution.

This study confirms the opinion previously advanced that there is an endemic zone in the southwestern part of Nigeria which it has not yet been possible to delimit, and which may perhaps extend west to the neighboring colonies. It has not been possible to exclude definitely endemicity in other regions, but meteorological conditions in the north of Nigeria seem to be adverse to the permanent existence of the infection, and this is probably also true in the interior of West Africa in general. Studies by ages in the population of the endemic zones disproves the opinions previously held, showing that the disease is not limited to children but that the percentage of immunes gradually increases with age, and that some individuals escape the disease entirely. The importance of these findings has also been demonstrated in the formulation of quarantine regulations, particularly for aerial navigation. The great value of piped water supplies and health services in decreasing or eliminating the infection is shown in several of the most important localities studied, particularly in Freetown, Sierra Leone, and in some communities on the coast of the Gold Coast and Nigeria. The study has recently been extended to French Cameroun, French Equatorial Africa, Belgian Congo, and Angola. Of the colonies studied, only the sera from Sudan (130 samples from two localities) were all negative.

The minute epidemiological study of the authors is accompanied by maps, tables, and graphs, and shows the figures in a table with the following headings: Name of country, name of the locality, number of samples collected, age of donors, percent of positives, age of youngest positive donor, European and African population, and last date when yellow fever was reported in the locality. (Beeuwkes, H., and Mahaffy, A. F.: *Trans. Royal Soc. Trop. Med. & Hyg.*, June 1934, p. 39.)

*Protection tests.*—Summarizing the result of the protection tests verified under the auspices of the Rockefeller Foundation, Sawyer declares that, in round numbers, 9,000 human sera were tested in Lagos, Nigeria, 4,000 in Bahia, Brazil, and 12,000 in New York, or about 25,000. The method employed is the original method of Sawyer and Lloyd,<sup>2</sup> except that instead of a 10 percent suspension of mouse brain, a 20 percent suspension is used. This increase has decreased somewhat the sensitivity of the test, and also the possibility of accidentally obtaining positive results with sera of persons

<sup>2</sup> Publication No. 57 of the Pan American Sanitary Bureau.

never infected with the yellow fever virus. The samples are collected at random, generally in lots of 25, from healthy subjects who have always lived in the investigated locality. If a serum protects 6 mice, or at least 5, it is concluded that the donor has had yellow fever at some time in his life.

Besides the countries mentioned, the investigation is carried on in Canada, China, the Philippines, Malaya, India, and Australia. Of 423 samples from these countries, 7 protected; but on retest, 4 of these lacked protective action, the difference being attributed to the weak concentration of the virus used the first time. The corrected number of protective sera decreased, then, to 3, or 0.7 percent. Of the sera from African countries without yellow fever antecedents, with the exception, perhaps, of brief local importation in ports, 7 protected out of 856 (0.8 percent). These countries were as follows: Morocco, Egypt, Kenya, Tanganyika, Abyssinia, Zanzibar, Southern Rhodesia, Bechuanaland Protectorate, and the Union of South Africa. In the United States, sera of 113 persons of the Negro race from Maryland, Texas, and Florida had no protective qualities. The few positive results in countries considered as free from the disease up to the present time are doubtless due to various causes of error, such as inaccurate information from the donor as to possible previous infection, use of an accidentally weak virus, resistant mice, and existence in the blood of a protective hypothetical nonspecific substance. The results for west and central Africa will soon be published by Beeuwkes and his collaborators. Stefanopoulo, who used a different technique, obtained data for French West Africa and discovered immunes distributed with some regularity in the great territory which extends from Senegal to the western frontier of the Anglo-Egyptian Sudan.

In the regions of South and Central America where yellow fever has existed, the results uphold the opinion that the disease has really disappeared since the time when the last cases were reported. The same is true of Puerto Rico and the north coast of Colombia. The distribution of immunity in Brazil and neighboring countries is under study, but Soper and Andrade have already published a very complete local study<sup>3</sup> of an epidemic in a Brazilian town, showing the large proportion of a population which may be immunized without presenting visible symptoms of yellow fever, since of more than 800 persons approximately 60 percent were immunized, although there were only 19 recognized clinical cases. The protection tests show that antiyellow fever immunity is very widespread in Brazil and exists in a section in the interior of Colombia. The west coast of South America is under study.

Judging by these tests the immunity of young persons against yellow fever seems limited to two large regions—one in South America

<sup>3</sup> Boletín de la Oficina Sanitaria Panamericana, April 1934, p. 372. See also issue for March 1935, p. 206.

and the other in Africa. The regions where it has been discovered are much more extensive than was thought, from what was known about the disease. (Sawyer, W. A.: Bull. Off. Int. d' Hyg. pub., June 1934, p. 1057.)

In the Portuguese colony of Angola, Beeuwkes collected blood samples in 19 different regions, and among 950 sera very few were positive. The same was true in 75 examinations in San Thomé. In Angola there was a tenacious epidemic from 1860 to 1870, more than 60 years ago. The age of those examined varied between 6 and 60 years; and, contrary to what is usually observed, there was no positive more than 60 years old. In San Thomé yellow fever has never been reported. This same epidemiological phenomenon, positive tests in regions far from known foci, has been observed in other regions, for example, in the Anglo-Egyptian Sudan.

In considering the matter Jorge states that it has been desired to substitute, for the classic unity of yellow fever, a duality similar to that which has been established for other infectious diseases; and also unapparent infections have been mentioned, which would abound and even predominate during epidemic outbreaks. For the author, only a serious investigation can solve the problem. For the present we can only stand firm in the position achieved, particularly since the experience acquired shows that visible yellow fever as is shown by patients and disease may be controlled with the present resources. (Jorge, R.: Bull. Off. Int. d' Hyg. pub., August 1934, p. 1396.)

*Dose of virus injected by the mosquito.*—Davis fed *Aedes aegypti* infected with yellow fever virus on very young white mice, which were immediately killed, and the extract obtained was injected in graduated doses into *Macacus rhesus*. In two experiments the tests indicated that each mosquito injected on feeding at least 100 infecting doses of virus. The virus seems rather to decrease than increase in the organism of the mosquito. Comparing the quantity of virus in the insect and in the mouse, it seems that the mosquito probably injects about 1 percent of the virus which it contains on biting. (Davis, N. C.: Am. Jour. Trop. Med., July 1934, p. 343.)

*Transmission of protective qualities to offspring.*—Five monkeys, offspring of mothers immune to yellow fever, showed in their sera protective qualities against the disease while they were still feeding on the mother's milk. In two cases in which the offspring were separated from the mother for 3 weeks, the serum ceased to show such properties. Of the mothers, 4 had been infected with the Asibi stock and 1 with the S. R. strain of yellow fever virus. The methods used to determine the protective power of the serum, both in the mothers and offspring, were the intracerebral method of Theiler and the intraperitoneal method of Sawyer and Lloyd. (Hoskins, M.: Jour. Imm., May 1934, p. 391.)



*Dengue.*—Snijders and his collaborators tested the sera of 20 volunteers inoculated experimentally with the Sumatran and Javanese virus of dengue, by means of the Theiler method and with a modification of the Sawyer method, repeating the test in some cases, without being able to discover any protection against the yellow fever virus. As controls they tested the sera of 5 persons who had had yellow fever, finding marked protection in all with the Theiler method, and in 3 out of 4 by the Sawyer method. Of the sera of 5 assistants who worked in the yellow fever laboratory, 2 showed a weak protective action with both methods, and these came from individuals who had the greatest contact with the yellow fever material.

Comparing immunity in both diseases it was stated that in yellow fever the immunity acquired is almost absolute, while it varies a great deal in dengue, being differentiated both in power and in duration. In the sera of former yellow fever patients there are almost always antibodies, often in high concentrations, while in dengue humoral immunity has not been found. It must, however, be accepted that the hypothesis has not yet been proved that under certain conditions dengue may give rise to some immunity to yellow fever. (Snijders, E. P., Postmus, S., and Schuffner, W.: *Am. Jour. Trop. Med.*, November 1934, p. 519.)

*Vaccination.*—In the laboratories of the Rockefeller Foundation of New York 56 persons have been vaccinated against yellow fever. Vaccination has also been practiced in Lagos, in Bahia, and, with some modifications, by Findlay in London and by Pettit and Stefanopoulo in Paris. The method cannot be applied on a large scale because of the difficulty in obtaining the necessary quantity of human immune serum, and for the present it is reserved for susceptible persons exposed to definite risk of infection. To avoid the difficulties inherent in the use of human immune serum, Findlay uses a technique with less serum, and Pettit and Stefanopoulo have produced a very active immune serum in the horse. In the first 15 cases the cerebral tissue of the infected mouse was triturated in human immune serum, being preserved frozen and afterwards filtered. In the other 41 cases the virus was suspended in normal human serum and filtered before drying. After 2 years of preservation one of the first mixtures of virus and immune serum was tested, and the activity of the mixture was found. Immunization could be carried on with the dried virus kept more than 8 months.

The efficacy of the method in later observations has been very similar to that described in the first series. The serum of 35 persons was tested before and after vaccination, showing the acquisition of a clear protection afterwards. The serum of 11 persons was tested 2 years after vaccination, and it was ascertained that the protection was lower than shortly after vaccination, but, in general,

remained at about  $\frac{1}{64}$  dilution, which is the highest in which the serum completely protects the mouse. In 4 persons whose sera showed a low titer, some of the virus used in the vaccination was injected intradermally, but not the immune serum, for they already had antibodies, without general reactions being observed.

Some time must still pass before an accurate opinion can be formulated on the necessity of revaccination, but it seems wise to test the vaccinated persons 2 or 3 years afterwards, if they continue to be exposed, in order to revaccinate those who show a very weak titer. As far as known no vaccinated person has contracted yellow fever; and in the personnel of the Rockefeller Foundation, both in the laboratory and in the field, there has been no case since vaccination was begun  $2\frac{1}{2}$  years ago, while formerly frequent accidental infections were observed in the laboratories. (Sawyer, W. A.: Bull. Off. Int. d'Hyg. pub., June 1934, p. 1072.)

Laigret describes the results obtained with the Theiler method, which consists in inoculating, without addition of any antiseptic or protective serum, living yellow fever virus, in the mutant represented by the Theiler virus. This is the French strain obtained in Dakar in 1927 and attenuated by Theiler by mouse brain passage, using a method somewhat similar to that used in antirabic vaccination. An objection which has been made to this method is that it requires 3 injections at intervals of 20 days. This period was fixed because the reactions observed have been somewhat late. With a single injection the author obtained protection experimentally in 7 out of 8 cases. In the 24 vaccinations made, no local or general reaction was observed. It seems that there is hope that vaccination can be done with 2 inoculations a week apart. The immunity, studied in two persons 10 months and 2 years after vaccination, still remained high. (Laigret, J.: Bull. Off. Int. d'Hyg. pub., June 1934, p. 1078.)

*Horse serum.*—Summarizing the results obtained in the Pasteur Institute, Pettit and Stefanopoulo state that the anti-yellow fever serum of equine origin advantageously supplants that from the convalescent human being in the method of vaccination of Sawyer, Kitchen, and Lloyd, also used by Findlay in London. Because of its harmlessness, the protection which it affords, and its duration (for at least 2 years), the procedure of Sawyer, Kitchen, and Lloyd is the one most to be recommended at present, and to the numerous confirmations showing its efficacy (the 56 vaccinations of Sawyer and the 264 of Findlay) should be added the few observations of the authors. The experiments made in New York and in Paris in the *Macacus* show that the volume of anti-yellow fever serum of equine origin which should be used is a fifth of the convalescent serum necessary to neutralize the virus used in the vaccination.

The authors have vaccinated 12 persons; in 2 they used the convalescent serum, and in the 10 others the horse serum. The persons vaccinated were, in general, hospitalized for 48 hours. Desensitization was practiced in persons who had received horse serum. In general all those vaccinated tolerated the vaccine well, but in 2 cases the temperature rose to 39°-39.5° C. in 36 to 48 hours after the injection, and in 2 others to 38°-38.6° C. In 6 of those vaccinated, who remained for some time in France, immunisins were found from 3 to 5 weeks and a year after vaccination. (Pettit, A., and Stefanopoulo, G. J.: Bull. Off. Int. d'Hyg. pub., June 1934, p. 1075.)

*Immune serum.*—The immune serum obtained from *rhesus* monkeys recovered from yellow fever, when injected within 24 to 48 hours after inoculation with yellow fever virus, was shown to be capable of preventing the fever or weakening the disease in some of the animals under experiment. At the end of 48 hours the effect is less clear. In no case did the serum prevent death when administration was postponed until the temperature of the monkey had reached 40° C. (Davis, N. C.: Jour. Immun., May 1934, p. 361.)

*Immunization against yellow fever.*—In Senegal, Africa, Laigret performed 3,196 inoculations with attenuated yellow fever virus, without using immune serum. Of these inoculations 2,164 were primary, 792 secondary, and 240 tertiary, all those inoculated being volunteers, and nearly all of them of the white race, a few being educated natives, such as physicians, sanitary assistants, nurses, and students of medicine. From these experiments the following conclusions are drawn: (a) It is possible to inoculate without danger of infecting *Aedes aegypti*, as in this region, notwithstanding every precaution and recommendation, the Syrian residents were exposed to the bites of these mosquitoes without there having occurred a secondary case of yellow fever as a result. (b) The practice is regarded as safe. The mildness of reactions to consecutive inoculations was shown by the fact that only 2 severe reactions were noted, and in more than 600 inoculations in women only 2 light reactions were seen. (c) The protective power of the serum of those inoculated was demonstrated after the first injection in two-thirds of those vaccinated. It is proposed to increase these inoculations in West Africa to the greatest extent possible. Records are kept with the idea of determining whether or not immunized persons will later develop yellow fever. The injections in these cases were given 20 days apart beginning with one tenth of a mouse unit followed by 1.6 and 16 mouse units for the second and third doses, respectively.<sup>4</sup> (Boyé: Bull. Off. Int. d'Hyg. pub., 2136, dbre. 1934.)

<sup>4</sup> This is the method of Laigret. See L'état actuel de la vaccination contre la fièvre jaune. Ann. de Med. et de Pharm. Coloniales, vol. 32, no., p. 78.—Ed.

*Present status of yellow fever in the Americas.*—In his address on yellow fever before the Ninth Pan American Sanitary Conference, held at Buenos Aires, November 12–22, 1934, Soper reviewed the important epidemiological developments in South America during the past 5 years. New facts have been brought to light by the application over a wide area of new methods for outlining previously endemic areas and discovering latent foci.

In spite of the enormous amount of control work done in the past, yellow fever still exists in the rural areas of northeast Brazil, in various widely separated points in the Amazon valley in Brazil, Peru, and Bolivia, and in the Magdalena and Orinoco Valleys in Colombia. Endemicity in the Amazon Valley was first suggested by the absence of reported cases in the native population of Para in 1929 while cases were occurring among foreign residents. Additional proof was furnished by positive protection tests on children from distant places in the valley in Brazil and Peru in 1931.

However, during the 5-year period considered (1929–34), the presence of yellow fever in epidemic form has not been confirmed for any important ports on the American continent, nor has any evidence of international exchange of the virus been found. Studies in Bolivia have lent added weight to the hypothesis that the Santa Cruz outbreak in 1932 was the result of endemicity. Post mortem pathological diagnoses of yellow fever have been made in livers from a number of outlying Amazon towns in Brazil in the complete absence of reported suspicious cases. A rapidly fatal disease in April 1934, at Coronel Ponce, 180 km from Cuyaba, the capital of the State of Matto Grosso, proved to be yellow fever. A puzzling feature of the situation is the occurrence of the disease in a number of places, such as Canaan, Espirito Santo, Brazil, San Ramón, Bolivia, and Coronel Ponce, Matto Grosso, in the absence of *Aedes aegypti*. At present there are no methods of control available for areas where *Aedes aegypti* is not the responsible vector.

Soper holds that yellow fever must be recognized as an international problem, needing concerted international action. This should include:

- (1) Antilarval services in all principal cities and in all ports of tropical America. This measure should prevent the future widespread dissemination of the virus and should greatly reduce the possibility of its international spread.

- (2) Protection test surveys to outline the recent distribution of yellow fever. This will undoubtedly be found much greater than is now believed.

- (3) Routine collection and examination of liver specimens from rapidly fatal febrile cases from all parts of possibly endemic areas. Smaller towns and rural areas are especially important.

(4) Careful study of all places presumed to be infected as shown by the examination of liver tissue, with special reference to the possibility of discovering vectors other than stegomyia and of vertebrate hosts other than man.

(5) Antilarval services in all towns and villages in and about known infected areas. (Soper, Fred L.: Boletín de la Oficina Sanitaria Panamericana, March 1935, p. 206.)

#### REPORT OF THE SUBCOMMITTEE OF THE INTERNATIONAL OFFICE

The subcommittee on yellow fever, in its report to the Permanent Committee of the International Office of Public Hygiene of Paris at its session of October 16, 1934, reviewed the data relating to this disease.

In British West Africa, of more than 7,000 blood specimens studied, 25 percent were positive by the mouse-protection test; in French Nigeria, 22 percent; in Dahomey, 30 percent; and in Anglo-Egyptian Sudan, from 0 to 16 percent were positive. In the Belgian Congo all examinations southeast of a line from Dilolo to Albertville were negative; but in the central and western parts of this colony there were adult immunes, and on the northern frontier not only adults but children were found to be immune. In equatorial French Africa there were positive blood specimens in nearly all territories; in Angola 4 percent of those examined were positive in 5 localities studied. Of 19 other places from which blood samples were secured, 8 percent were positive in 3 localities.

With respect to a case of yellow fever reported in Wau, in Anglo-Egyptian Sudan, the subcommittee declared that, while the case might be considered to be yellow fever, there was some doubt about it, and it should be regarded as suspicious only. The subcommittee reiterated its conviction that the mouse-protection test possesses great value and is of much practical importance.

Granted that there was not an entire unanimity of opinion among the members of the subcommittee, differences of opinion do not exist if positive tests in any region overwhelmingly indicate the existence of clinical yellow fever. At any rate, they recommend that the investigations be continued.

The subcommittee looked into the diagnostic value of histological examinations of liver tissue, reporting that, although such examinations are not absolutely conclusive, they constitute an important aid when accompanied by clinical data. They express the opinion that in regions where yellow fever is suspected to exist, it is well to examine in this manner all persons who die of fever of less than 10 days' duration. It is suggested that a special service be created for the purpose of making these examinations.

With regard to vaccination, the subcommittee observed that the two procedures most in use are those of Sawyer, Kitchen, and Lloyd, modified by Findlay, Pettit, and Stefanopoulo, and the method of Laigret.

The subcommittee considered immunization against yellow fever advisable, but added that the use of a vaccine consisting of living virus without immune serum, as in the method of Laigret, seems to involve certain risks that call for caution. For the time being, although the protective power of these vaccinations has been shown biologically, the subcommittee does not express itself with regard to relative values, believing that, in order to judge of the merits of each procedure, it would be necessary to study the persons vaccinated throughout their lives in countries where yellow fever is endemic. They affirm the necessity of confirmation of the results believed to be obtained, and invite the attention of all countries to the desirability of such confirmation wherever vaccination is practiced.

#### FINDLAY'S OBSERVATIONS

Findlay states that he is the only physician authorized by the British Government to preserve yellow fever virus and to vaccinate against the disease. He thinks that the inoculation of a living virus by itself entails danger, since the subcutaneous injection of Theiler's attenuated virus, he says, may kill monkeys, and the virus, he asserts, may be carried by mosquitoes and also change from neurotropic to viscerotropic. In addition, Laigret, Mathis, and Durieux have observed in persons vaccinated with virus alone, various reactions, including, according to Findlay, febrile attacks, nephritis, meningitis, paralysis, etc. In spite of possible serum sickness, Findlay therefore prefers the serum and virus vaccination method. As convalescent serum is always scarce and its virucidal power is weak, Findlay now uses Pettit-Stefanopoulo's immune (horse) serum. This can be obtained in practically unlimited amounts and its virucidal power is, Findlay states, much higher than that of convalescent serum. If the relative proportions of serum and virus are correctly determined, the reactions caused by the latter become mild and very infrequent, and the virus does not circulate in the blood. Following consideration of the results obtained in several hundred vaccinated persons in London, the British Government has decided to approve only the serum-virus method for use in West African colonies. (Findlay, G. M.: *Progrès Méd.*, Jan. 26, 1935, p. 156.)

#### IMMUNITY OF CUBANS

Recio presented before the Academy of Medicine of Paris a work relating to the immunity against yellow fever of Cubans born since 1908. Of 16 born since 1901, the date of the last big epidemic, 12

were found to be immune, while of 11 born between 1902 and 1908, and 14 born after 1908, none were immune.

In the discussion, Domínguez emphasized the importance of further study for the purpose of demonstrating that in combating another epidemic the majority of Cubans would be found to be as susceptible as foreigners. (Paris letter, *Jour. Am. Med. Assoc.*, Dec. 29, 1934, p. 2040.)

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## POTENTIAL PROBLEMS OF INDUSTRIAL HYGIENE IN A TYPICAL INDUSTRIAL AREA

The report of a study of the potential industrial-hygiene problems in a typical industrial area in the United States has recently been published by the Public Health Service.<sup>1</sup> The study was undertaken for the purpose of determining the necessity for an industrial-hygiene program in the area under consideration, and, if such a need should be present, to learn just where and to what extent the problems existed.

With the aid of funds supplied by the Civil Works Administration it was possible to employ 30 engineers, who were first given a brief training period in industrial-hygiene methods, particularly in the technique of making preliminary surveys of an industrial environment. Two simple survey forms, designed especially for the purpose, were used in the survey of 615 plants, during a period of approximately 7 weeks. These plants represented 10 main industries; the metal-products industry employed the greatest percentage of persons, 13,955 out of a total of 28,686, or 48.7 percent. The leather-products industry, consisting mostly of shoe factories, accounted for 28 percent of the personnel. The percentage distribution of the plants according to the number of workers employed showed that 48.7 percent of the plants had less than 10 employees and only 10.2 percent had 100 or more persons. These data compare very well with industrial plants in the United States as a whole, since the United States Census data for 1929 show practically the same kind of a distribution.

The information on such industrial welfare provisions as safety supervision, medical and nursing facilities, sick benefit associations, and disability statistics, disclosed that only 5 percent of the plants and about 20 percent of the workers were provided with the services of either a part or full-time safety director, and, as might be expected, most of these supervisors were found in the plants with 100 or more employees. The medical and nursing care was found to be in about the same status as the safety work. Seventeen percent of the workers

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<sup>1</sup> The Potential Problems of Industrial Hygiene in a Typical Industrial Area in the United States. By J. J. Bloomfield, W. S. Johnson, and R. R. Sayers. Public Health Bulletin 216. Government Printing Office, Washington, 1935.

had a part-time medical supervisor and only 15.3 percent had the services of a full-time physician. Nursing service of a full-time nature was found to be present for 34.1 percent of the employees with practically no part-time nursing service available.

The only type of disability statistics existing to any considerable degree in the plants under study was that of accident records, which were required by the provisions of the local compensation act. Sick-ness records were kept to the extent of embracing 40 percent of the population studied, most of which were in establishments having sick benefit associations. The larger plants, those employing 100 or more workers, had the greatest percentage of workers furnished with the listed industrial facilities. The small plants were lacking in important welfare provisions.

It was found that 19.5 percent of the workers made use of the common towel, and 13 percent used the common drinking cup.

Unguarded moving machinery was the most common potential source of accidental injury, 41 percent of the workers being exposed to this type of risk. Floor hazards ranked next, with 13.2 percent exposures, while 7.5 percent of the workers were not protected against the possibility of eye injuries from flying particles. In practically all plants where there was either a part- or full-time safety director, the percentage of persons found exposed to unguarded moving machinery was less than in those plants not having such safety personnel.

The data regarding the number of persons in each occupation exposed to various materials and conditions, for each of the ten groups of industries studied, showed exposure to 50 materials and conditions in the 615 plants investigated, 39 of which may be considered *potentially* hazardous from the viewpoint of *possible* systemic poisoning. Inorganic dusts, carbon monoxide, and lead and its compounds were the most important materials from a hygienic viewpoint confronting the industrial hygienist.

The report contains recommendations for the establishment of personnel in the health department, for the purpose of carrying out a constructive program of industrial hygiene. Minimum personnel requirements and a specific program for the practice of industrial hygiene are outlined. Occupational diseases are in a large measure preventable and the degree of prevention exercised in a community will be reflected in the general health status of that community.

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## SKIN HAZARDS IN AMERICAN INDUSTRIES

The United States Public Health Service has recently issued the first of a series of publications dealing with skin hazards in American industries.<sup>1</sup> This first report includes candy making, synthetic dye

<sup>1</sup> Public Health Bulletin No. 215.



manufacture, oil refining, rubber industry, manufacture of linseed oil, and studies of outbreaks of dermatitis occurring among silk throwsters, insecticide manufacturers, and perfume bottlers.

*Candy making.*—In the candy industry over 1,200 workers in 4 factories were examined and the processes studied. The chief skin hazards were found to be burns in hard-candy making and dermatitis from flavoring oils and sugar. A case of hypersensitivity to chocolate is also described.

*Synthetic dye manufacture.*—In synthetic dye manufacture, 3,800 workers in 5 dye manufacturing establishments were examined. Processes of dye manufacture are described and the chief irritants are listed. It was found that most of the finished dyes are not irritants, but that many of the intermediates are powerful skin irritants. Methods of prevention are outlined.

*Oil refining.*—In the oil refining industry 8 refineries were included and about 14,000 men were examined. Processes of refining are described. An unusual number of papillomata of the skin was found among workers in this industry. Methods of prevention are outlined.

*Rubber industry.*—This study was based on investigations in 7 large rubber manufacturing companies employing about 30,000 workers. A brief review of literature on dermatitis in the industry is given, and the process of rubber manufacture is briefly described. The chief accelerators and antioxidants used are named. Dermatitis due to pure rubber is rare, but dermatitis caused by the compounds in rubber is fairly frequent. It is due not so much to the fact that these compounds are skin irritants as to the hypersensitivity of the workers to them. The workers compounding and handling the unvulcanized rubber are mostly affected. The cured rubber is seldom a cause of dermatitis. When it is, it is usually caused by "blooming out" of excess of accelerator or antioxidant. Preventive measures are outlined.

*Linseed oil manufacture.*—An outbreak of dermatitis in the manufacture of linseed oil is described. The chief irritants in this industry are as follows:

1. Irritation from the sharp points of the linseed itself.
2. Bites of parasites in the linseed.
3. Cuts from filter cloths made of human Chinese hair.
4. Hypersensitivity to the linseed oil itself.

Methods of prevention are given and literature on the subject is reviewed.

*Dermatitis among silk throwsters.*—The report describes an outbreak of dermatitis in a silk-throwing factory which was found to be due to the hypersensitivity of the handlers of wet silk to the wetting solu-

tion. This solution contained soap made of olive oil foots and anti-mildew, containing cresol.

*Insecticide manufacture.*—Investigation was made of an outbreak of dermatitis in an insecticide factory caused by petroleum distillate extracts of the Japanese daisy. Patch tests showed that the trouble was due to the irritating effects of pyrethrum, on which the insecticidal action of these flowers depends.

*Perfume bottling.*—An outbreak of dermatitis in a perfume bottling plant was found to be caused by essential oils containing a terpene alcohol, called "linalool."

### DEATHS DURING WEEK ENDED FEB. 23, 1935

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

	Week ended Feb. 23, 1935	Correspond- ing week, 1934
<b>Data from 86 large cities of the United States:</b>		
Total deaths.....	8,685	9,185
Deaths per 1,000 population, annual basis.....	12.1	12.8
Deaths under 1 year of age.....	582	602
Deaths under 1 year of age per 1,000 estimated live births.....	63	66
Deaths per 1,000 population, annual basis, first 8 weeks of year.....	12.9	12.7
<b>Data from industrial insurance companies:</b>		
Policies in force.....	67,351,397	67,553,818
Number of death claims.....	12,909	13,510
Death claims per 1,000 policies in force, annual rate.....	10.0	10.4
Death claims per 1,000 policies, first 8 weeks of year, annual rate.....	10.7	10.7

# 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 Mar. 2, 1935, and Mar. 3, 1934**

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Mar. 2, 1935, and Mar. 3, 1934*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934
<b>New England States:</b>								
Maine.....	2	-----	15	6	221	4	0	0
New Hampshire.....	-----	-----	-----	-----	30	206	0	0
Vermont.....	1	-----	-----	-----	3	44	0	0
Massachusetts.....	17	9	-----	-----	531	2,375	1	1
Rhode Island.....	3	5	-----	-----	68	8	0	0
Connecticut.....	5	3	32	24	785	49	1	0
<b>Middle Atlantic States:</b>								
New York.....	34	53	20	32	2,111	1,175	14	4
New Jersey.....	30	18	28	28	842	472	3	0
Pennsylvania.....	63	65	-----	-----	4,620	3,823	9	0
<b>East North Central States:</b>								
Ohio.....	78	30	174	15	1,390	342	14	1
Indiana.....	38	20	115	103	528	807	9	1
Illinois.....	44	39	71	66	2,802	1,139	20	9
Michigan.....	6	13	17	2	2,314	73	2	1
Wisconsin.....	1	6	196	98	2,141	1,136	0	5
<b>West North Central States:</b>								
Minnesota.....	2	8	41	-----	2,452	227	3	1
Iowa.....	10	8	99	3	1,481	187	1	1
Missouri.....	49	37	355	153	662	990	10	1
North Dakota.....	2	3	9	55	49	321	3	0
South Dakota.....	2	2	-----	4	14	340	0	1
Nebraska.....	8	23	-----	6	468	239	2	0
Kansas.....	19	15	29	5	1,552	246	3	1
<b>South Atlantic States:</b>								
Delaware.....	2	1	-----	1	5	123	0	0
Maryland.....	9	12	53	15	62	735	4	0
District of Columbia.....	25	7	3	1	13	514	6	0
Virginia.....	14	23	-----	-----	916	940	1	2
West Virginia.....	16	24	236	118	448	73	1	1
North Carolina.....	19	27	174	80	737	2,421	2	0
South Carolina.....	3	16	534	799	72	532	7	0
Georgia.....	8	14	304	-----	-----	1,917	0	0
Florida.....	4	5	49	2	102	111	2	1
<b>East South Central States:</b>								
Kentucky.....	15	17	117	44	1,001	269	2	1
Tennessee.....	12	10	175	215	41	1,411	6	2
Alabama.....	15	31	889	171	463	872	2	0
Mississippi.....	2	5	-----	-----	-----	-----	0	0

See footnotes at end of table.

*Cases of certain communicable diseases reported by telegraph by State health officers  
for weeks ended Mar. 2, 1935, and Mar. 3, 1934—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934
<b>West South Central States:</b>								
Arkansas.....	3	7	113	50	58	561	2	1
Louisiana.....	23	28	37	18	131	169	1	0
Oklahoma.....	12	18	244	131	54	625	2	3
Texas.....	56	114	897	902	187	2,312	10	2
<b>Mountain States:</b>								
Montana.....	5	3	320	25	180	12	3	1
Idaho.....		4	1		82	33	0	0
Wyoming.....					104	51	1	1
Colorado.....	13	3			736	188	1	0
New Mexico.....	8	7	30	2	15	118	1	1
Arizona.....	1	1	38	16	26	39	1	0
Utah.....					12	711	0	1
<b>Pacific States:</b>								
Washington.....	3	2	1		132	189	0	0
Oregon.....	2		109	91	116	117	0	1
California.....	46	33	202	60	564	1,570	4	2
<b>Total.....</b>	<b>730</b>	<b>769</b>	<b>5,727</b>	<b>3,241</b>	<b>31,371</b>	<b>30,806</b>	<b>154</b>	<b>47</b>

  

Division and State	Pollomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934
<b>New England States:</b>								
Maine.....	0	0	21	20	0	0	2	2
New Hampshire.....	0	0	13	14	0	0	0	0
Vermont.....	0	0	13	7	0	0	1	0
Massachusetts.....	2	0	220	216	0	0	1	2
Rhode Island.....	0	0	12	15	0	0	0	0
Connecticut.....	0	0	67	53	0	0	2	1
<b>Middle Atlantic States:</b>								
New York.....	2	1	948	782	0	0	10	7
New Jersey.....	0	1	180	182	0	0	0	1
Pennsylvania.....	2	0	720	1,038	0	0	6	9
<b>East North Central States:</b>								
Ohio.....	1	1	1,282	749	0	1	5	2
Indiana.....	0	0	303	281	1	3	3	0
Illinois.....	1	1	1,199	701	4	3	6	6
Michigan.....	0	1	408	786	0	9	0	7
Wisconsin.....	0	0	572	308	15	26	0	1
<b>West North Central States:</b>								
Minnesota.....	0	0	149	45	14	8	0	0
Iowa.....	1	0	73	78	4	12	4	1
Missouri.....	0	1	93	71	3	0	2	1
North Dakota.....	0	0	63	24	0	0	0	0
South Dakota.....	0	1	8	13	3	3	1	0
Nebraska.....	3	1	36	30	39	0	0	1
Kansas.....	1	0	95	108	6	2	0	4
<b>South Atlantic States:</b>								
Delaware.....	0	0	26	19	0	0	0	0
Maryland.....	1	0	93	91	0	0	3	1
District of Columbia.....	0	0	55	16	0	0	0	1
Virginia.....	0	0	50	46	0	0	9	2
West Virginia.....	0	0	125	81	0	2	3	3
North Carolina.....	1	0	37	53	0	2	1	0
South Carolina.....	0	0	2	13	0	5	1	1
Georgia.....	0	0	4	7	0	0	3	4
Florida.....	1	2	4	4	0	0	2	0
<b>East South Central States:</b>								
Kentucky.....	0	0	52	56	0	0	8	1
Tennessee.....	0	1	28	31	0	0	1	4
Alabama.....	1	0	10	11	0	5	3	2
Mississippi.....	0	0	12	25	3	0	3	0

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Mar. 2, 1935, and Mar. 3, 1934—Continued*

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934	Week ended Mar. 2, 1935	Week ended Mar. 3, 1934
<b>West South Central States:</b>								
Arkansas.....	0	5	8	9	1	1	0	1
Louisiana.....	2	1	12	25	2	1	7	11
Oklahoma <sup>1</sup> .....	0	0	39	18	1	12	2	3
Texas.....	1	0	82	146	7	18	7	16
<b>Mountain States:</b>								
Montana.....	0	0	8	20	7	0	1	0
Idaho.....	0	0	4	15	0	5	0	1
Wyoming.....	0	0	9	3	2	0	0	0
Colorado.....	0	0	314	72	0	11	3	5
New Mexico.....	1	0	13	20	1	1	7	3
Arizona.....	0	0	10	11	0	0	0	0
Utah <sup>2</sup> .....	0	0	92	4	0	0	0	0
<b>Pacific States:</b>								
Washington.....	1	0	65	72	11	4	1	2
Oregon.....	0	0	49	39	0	0	1	0
California.....	11	4	303	234	1	1	2	3
<b>Total.....</b>	<b>33</b>	<b>21</b>	<b>7,961</b>	<b>6,660</b>	<b>125</b>	<b>135</b>	<b>111</b>	<b>109</b>

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

<sup>2</sup> Week ended earlier than Saturday.

<sup>3</sup> Typhus fever, week ended Mar. 2, 1935, 2 cases, as follows: Georgia, 1; Florida, 1.

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

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States 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	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>January 1935</i>										
Arizona.....	8	7	815	-----	124	-----	1	202	0	3
Mississippi.....	3	41	11,280	1,638	156	121	0	89	2	13
Missouri.....	24	185	1,780	13	1,340	-----	0	345	8	28
New York.....	19	214	-----	8	3,814	-----	3	2,813	0	32
Puerto Rico.....	-----	60	84	1,614	34	-----	3	1	0	12
Virginia.....	17	115	6,581	1	1,850	5	1	271	6	24
Washington.....	5	13	301	-----	468	-----	7	264	338	10
Wisconsin.....	13	15	781	-----	3,281	-----	2	2,645	76	9

<i>January 1935</i>		<i>January 1935—Continued</i>		<i>January 1935—Continued</i>	
Chicken pox:	Cases	Dysentery—Continued.	Cases	Hookworm disease:	Cases
Arizona.....	84	New York (bacillary)...	27	Mississippi.....	185
Mississippi.....	636	Puerto Rico.....	38	Leprosy:	
Missouri.....	455	Virginia (amoebic).....	1	Puerto Rico.....	1
New York.....	3,375	Wisconsin (amoebic).....	1	Mumps:	
Puerto Rico.....	60	Epidemic encephalitis:		Arizona.....	55
Virginia.....	397	Missouri.....	3	Mississippi.....	496
Washington.....	638	New York.....	14	Missouri.....	274
Wisconsin.....	2,490	Washington.....	2	Puerto Rico.....	71
Diarrhea and dysentery		Wisconsin.....	2	Virginia.....	117
(bacillary):		Filariasis:		Washington.....	286
Virginia.....	20	Puerto Rico.....	1	Wisconsin.....	1,046
Dysentery:		German measles:		Ophthalmia neonatorum:	
Arizona.....	7	Arizona.....	56	New York.....	13
Mississippi (amoebic)...	57	New York.....	1,587	Puerto Rico.....	3
Missouri.....	4	Washington.....	362	Virginia.....	3
New York (amoebic)...	3	Wisconsin.....	1,310	Washington.....	1

January 1935—Continued		January 1935—Continued		January 1935—Continued	
Paratyphoid fever:	Cases	Tetanus:	Cases	Undulant fever:	Cases
New York	4	New York	4	Missouri	3
Puerperal septicemia:		Puerto Rico	5	New York	3
Mississippi	25	Virginia	1	Virginia	1
Puerto Rico	4	Tetanus, infantile:		Washington	1
Rabies in animals:		Puerto Rico	9	Wisconsin	4
Mississippi	10	Trachoma:		Vincent's infection:	
Missouri	7	Arizona	32	New York	110
New York	2	Missouri	23	Washington	1
Washington	4	Virginia	1	Whooping cough:	
Rocky Mountain spotted fever:		Wisconsin	2	Arizona	139
Virginia	1	Trichinosis:		Mississippi	684
Septic sore throat:		New York	35	Missouri	282
Arizona	2	Tularaemia:		New York	3,340
Missouri	29	Missouri	18	Puerto Rico	364
New York	31	New York	4	Virginia	540
Virginia	10	Virginia	6	Washington	80
Washington	2	Washington	1	Wisconsin	802
Wisconsin	10	Wisconsin	2	Yaws:	
		Typhus fever:		Puerto Rico	11
		Virginia	1		

## WEEKLY REPORTS FROM CITIES

City reports for week ended Feb. 23, 1935

[This table summarizes the reports received regularly from a selected list of 121 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.]

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								
Maine:											
Portland	0	1		0	5	1	0	0	0	4	28
New Hampshire:											
Concord											
Nashua	0			0		0	0		0	0	
Vermont:											
Barre	0		0	0	0	0	0	0	0	0	2
Burlington	0		0	15	0	2	0	0	0	0	7
Massachusetts:											
Boston	7		3	11	0	35	0	11	0	23	261
Fall River	0		0	139	3	1	0	0	0	21	29
Springfield	0		0	62	1	11	0	0	0	2	31
Worcester	0		0	7	3	13	0	1	0	11	42
Rhode Island:											
Pawtucket	0		0	0	0	0	0	0	0	0	23
Providence	1		1	22	6	11	0	2	0	2	60
Connecticut:											
Bridgeport	0	1	1	1	5	14	0	1	0	1	32
Hartford	0		0	117	3	2	0	2	0	6	33
New Haven	0	4	1	119	5	0	0	1	0	0	45
New York:											
Buffalo	0		0	0	15	50	0	11	0	39	112
New York	36	27	13	441	172	439	0	64	1	184	1,479
Rochester	0		0	237	7	20	0	1	0	16	71
Syracuse	0		2	43	3	9	0	0	0	11	32
New Jersey:											
Camden	8	4	4	0	1	5	0	1	0	2	41
Newark	1	9	0	166	15	22	0	5	0	51	102
Trenton	0	2	1	26	6	11	0	3	0	2	49
Pennsylvania:											
Philadelphia	6	10	3	11	59	69	0	26	0	96	550
Pittsburgh	9	13	9	413	33	28	0	5	0	19	176
Reading	0		0	20	0	10	0	0	0	3	27
Scranton	1			294		2	0		0	2	
Ohio:											
Cincinnati	4		3	1	15	20	0	4	0	5	148
Cleveland	9	83	3	155	19	29	0	10	0	56	180
Columbus	3	2	2	85	11	34	0	6	0	5	91
Toledo	0	2	1	32	7	28	0	5	0	7	84
Indiana:											
Fort Wayne	1		0	7	6	7	0	1	0	0	24
Indianapolis	9		1	19	15	16	0	1	0	12	
South Bend	0		0	9	2	4	0	0	0	1	26
Terre Haute	1		1	0	1	0	0	1	0	0	24
Illinois:											
Chicago	13	6	6	842	54	593	0	41	0	108	708
Springfield	0	1	0	9	4	7	0	1	0	0	21

\* Exclusive of New York City.

## City reports for week ended Feb. 23, 1935—Continued

State and city	Diph- theria cases	Influenza		Meas- les 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>Michigan:</b>											
Detroit.....	3	16	5	377	51	139	0	21	0	69	326
Flint.....	1		0	246	5	8	0	2	0	1	23
Grand Rapids.....	0		0	51	3	6	0	1	0	15	38
<b>Wisconsin:</b>											
Kenosha.....	0		0	345	1	34	0	0	0	2	4
Milwaukee.....	1	1	1	402	7	245	0	6	0	27	108
Racine.....	0		2	41	1	2	0	0	0	3	16
Superior.....	0		0	153	1	1	0	1	0	5	10
<b>Minnesota:</b>											
Duluth.....	0		0	297	3	1	0	0	0	0	21
Minneapolis.....	1		0	1,666	4	40	0	1	0	17	85
St. Paul.....	1		0	9	6	28	1	3	0	12	67
<b>Iowa:</b>											
Davenport.....	0			3		3	0		0	0	
Des Moines.....	0			48		4	0		0	0	35
Sioux City.....	0			4		0	0		0	1	
Waterloo.....	4			4		3	4		0	0	
<b>Missouri:</b>											
Kansas City.....	2		0	143	19	27	0	6	0	4	121
St. Joseph.....	0		0	14	11	2	0	3	0	2	47
St. Louis.....	11	3	1	13	21	25	0	9	0	3	188
<b>North Dakota:</b>											
Fargo.....	0		0		2	3	0	0	0	0	7
Grand Forks.....	0					2	0		0	0	
<b>South Dakota:</b>											
Aberdeen.....	0			2		2	0	1	0	0	
Sioux Falls.....	0			0		0	6		0	0	6
<b>Nebraska:</b>											
Omaha.....	7		0	47	2	15	0	3	0	2	61
<b>Kansas:</b>											
Topeka.....	0		2	26	8	2	0	1	0	4	43
Wichita.....	1		1	175	6	1	0	2	0	0	31
<b>Delaware:</b>											
Wilmington.....	0		0		5	5	1	3	0	0	33
<b>Maryland:</b>											
Baltimore.....	4	6	2	7	31	56	0	9	1	17	249
Cumberland.....	0		0	7	0	0	0	1	0	0	14
Frederick.....	0		0	0	0	0	0	0	0	1	6
<b>District of Colum- bia:</b>											
Washington.....	8	7	4	11	22	44	0	10	2	2	207
<b>Virginia:</b>											
Lynchburg.....	2		2	321	2	3	0	0	0	10	16
Norfolk.....	0	8	0	14	9	5	0	2	0	7	36
Richmond.....	0		3	81	10	1	0	7	0	0	73
Roanoke.....	2		0	23	2	5	0	0	0	0	17
<b>West Virginia:</b>											
Charleston.....	0		0	19	1	1	0	0	0	6	12
Huntington.....	1			22		6	0		0	0	
Wheeling.....	0		2	57	2	10	0	2	0	5	24
<b>North Carolina:</b>											
Raleigh.....											
Wilmington.....	0		0	0	4	0	0	1	0	0	15
Winston-Salem.....	0	2	1	17	1	2	0	2	0	25	18
<b>South Carolina:</b>											
Charleston.....	0	49	1	1	6	2	0	3	0	0	27
Columbia.....											
Greenville.....	0		0	0	3	0	0	1	0	0	16
<b>Georgia:</b>											
Atlanta.....	4	44	2	2	16	11	0	5	0	8	93
Brunswick.....	0		0	0	0	0	0	0	0	0	1
Savannah.....	0	42	1	2	3	0	0	0	0	3	30
<b>Florida:</b>											
Miami.....	2	8	2	1	3	0	0	1	0	0	36
Tampa.....	3	3	3	2	3	1	0	1	0	0	28
<b>Kentucky:</b>											
Ashland.....	1		0	3	0	3	0	1	0	0	
Lexington.....	0	15	0	1	5	0	0	1	0	2	19
Louisville.....	4	5	1	215	8	19	0	4	1	13	69
<b>Tennessee:</b>											
Memphis.....	5		0	0	18	6	0	7	0	8	90
Nashville.....	0		2	0	8	4	0	3	1	2	60
<b>Alabama:</b>											
Birmingham.....	2	66	2	29	5	5	0	4	1	11	71
Mobile.....	0	12	2	0	4	1	0	2	0	0	30
Montgomery.....	0			23		2	0		0	0	

## City reports for week ended Feb. 23, 1935—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								
Arkansas:											
Fort Smith											
Little Rock	1		1	17	5	2	0	6	0	0	13
Louisiana:											
New Orleans	26	11	3	18	22	11	0	0	0	0	157
Shreveport	1		0	4	15	0	0	6	0	3	66
Oklahoma:											
Tulsa	2			2		1	0		0	14	
Texas:											
Dallas	8	7	7	0	11	5	0	2	0	0	66
Fort Worth	1		1	0	7	2	0	0	0	0	32
Galveston	9		0	0	1	1	0	1	0	0	19
Houston	5		4	3	8	2	0	12	1	0	74
San Antonio	1		6	0	7	5	0	7	0	0	71
Montana:											
Billings	0		0	0	0	0	0	0	0	0	12
Great Falls	0		0		4	1	0	0	1	0	13
Helena	0		0	73	0	0	0	0	0	0	4
Missoula	0		0	26	0	0	0	0	0	6	4
Idaho:											
Boise	0		0	1	0	1	0	0	0	0	14
Colorado:											
Denver	5	39	5	345	8	242	0	3	0	5	98
Pueblo											
New Mexico:											
Albuquerque	2		0	6	4	2	0	6	0	10	20
Utah:											
Salt Lake City	0		1	8	2	80	0	1	0	48	31
Nevada:											
Reno	0		0	0	1	0	0	0	0	0	6
Washington:											
Seattle	0			33		6	3		0	7	
Spokane	0	1	1	131	4	4	0	0	0	3	32
Tacoma											
Oregon:											
Portland	0	2	0	44	6	9	0	2	0	0	84
California:											
Los Angeles	11	68	2	16	18	50	7	20	0	8	306
Sacramento	12		0	13	0	9	0	2	1	0	22
San Francisco	0	6	2	10	13	20	0	12	0	10	170

State and city	Meningococcus meningitis		Polio-myelitis cases	State and city	Meningococcus meningitis		Polio-myelitis cases
	Cases	Deaths			Cases	Deaths	
Massachusetts:				Kansas:			
Boston	0	1	0	Wichita	2	2	0
Fall River	1	1	0	Maryland:			
Rhode Island:				Baltimore	4	2	0
Providence	1	0	0	District of Columbia:			
Connecticut:				Washington	11	2	1
Bridgeport	1	1	0	Florida:			
New York:				Tampa	0	0	1
New York	3	0	0	Kentucky:			
New Jersey:				Lexington	1	0	0
Newark	1	0	0	Alabama:			
Pennsylvania:				Birmingham	1	0	0
Pittsburgh	1	0	0	Mobile	0	1	0
Ohio:				Montgomery	1	0	0
Cincinnati	15	2	0	Arkansas:			
Illinois:				Little Rock	2	0	0
Chicago	10	4	0	Texas:			
Wisconsin:				Dallas	2	1	0
Milwaukee	1	0	0	Houston	1	0	0
Iowa:				Colorado:			
Des Moines	2	0	0	Denver	2	1	0
Waterloo	0	0	1	New Mexico:			
Missouri:				Albuquerque	1	2	0
Kansas City	1	1	0	California:			
St. Joseph	1	1	0	Los Angeles	0	0	5
St. Louis	1	0	0	San Francisco	1	0	0
Nebraska:							
Omaha	3	0	0				

*Epidemic encephalitis*.—Cases: Philadelphia, 1; Milwaukee, 1.

*Pellagra*.—Cases: Charleston, S. C., 1; Miami, 2; Atlanta, 2; Savannah, 4; New Orleans, 2.

*Typhus fever*.—Cases: Savannah, 1; Tampa, 2.



## FOREIGN AND INSULAR

### ALASKA

*Poliomyelitis.*—On March 3, 1935, an outbreak of poliomyelitis was reported at Unga and Sandpoint, Alaska.

### CANADA

*Provinces—Communicable diseases—2 weeks ended February 9, 1935.*—During the 2 weeks ended February 9, 1935, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada, as follows:

Disease	Prince Ed- ward Island	Nova Scotia	New Brun- swick	Que- bec	Onta- rio	Mani- toba	Sas- katch- ewan	Alber- ta	Brit- ish Colum- bia	Total
Cerebrospinal meningitis.....					2	1				3
Chicken pox.....		3	1	406	744	70	191	20	112	1,547
Diphtheria.....		7		38	10	13	4		2	74
Dysentery.....				3					3	6
Erysipelas.....				14	4	3	12	1		34
Influenza.....		4		18	292	1	3		153	471
Lethargic encephalitis.....					1			1		2
Measles.....		263	8	865	1,831	369	1,133	11	123	4,598
Mumps.....		102	1		466	50	3	7	38	667
Paratyphoid fever.....					1					1
Pneumonia.....		2			38		10		46	96
Poliomyelitis.....					2					2
Scarlet fever.....	4	14	2	269	305	43	26	25	43	731
Smallpox.....					1					1
Tuberculosis.....	2	1	10	138	65	15	18	4	27	280
Typhoid fever.....			2	20	7	1	1			31
Undulant fever.....				1	2					3
Whooping cough.....		5	2	248	357	40	60	16	160	888

### CUBA

*Habana—Communicable diseases—4 weeks ended February 16, 1935.*—During the 4 weeks ended February 16, 1935, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Cerebrospinal meningitis.....	2		Tuberculosis.....	29	9
Diphtheria.....	4	3	Typhoid fever.....	18	3
Malaria.....	123	5			

<sup>1</sup> Includes imported cases.

*Provinces—Notifiable diseases—4 weeks ended February 9, 1935.*—During the 4 weeks ended February 9, 1935, cases of certain notifiable diseases were reported in the Provinces of Cuba, as follows:

Disease	Pinar del Rio	Habana	Matanzas	Santa Clara	Camaguey	Oriente	Total
Cancer.....	2			1			3
Chicken pox.....					2		2
Diphtheria.....		2	3	3	2		10
Hookworm disease.....				2			2
Leprosy.....				3		11	14
Malaria.....	352	14	2, 043	1, 379	410	795	4, 993
Measles.....		16		15	1		32
Poliomyelitis.....	1	1	1	1	1		5
Scarlet fever.....		4			1		5
Tuberculosis.....	3	4	60	37	12	32	148
Typhoid fever.....	1	2	5	14	6	12	40

### JAMAICA

*Communicable diseases—4 weeks ended January 26, 1935.*—During the 4 weeks ended January 26, 1935, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Chicken pox.....	1	10	Leprosy.....	1	4
Diphtheria.....	1		Puerperal fever.....		6
Dysentery.....	9	6	Tuberculosis.....	30	70
Erysipelas.....		2	Typhoid fever.....	11	65

### PUERTO RICO

*Notifiable diseases—4 weeks ended February 23, 1935.*—During the 4 weeks ended February 23, 1935, cases of certain notifiable diseases were reported in the municipalities of Puerto Rico as follows:

Disease	Cases	Disease	Cases
Chicken pox.....	115	Poliomyelitis.....	1
Diphtheria.....	54	Ringworm.....	3
Dysentery.....	20	Scarlet fever.....	1
Erysipelas.....	2	Syphilis.....	9
Influenza.....	62	Tetanus.....	4
Malaria.....	1, 128	Tetanus, infantile.....	1
Measles.....	46	Trachoma.....	1
Mumps.....	66	Tuberculosis.....	664
Ophthalmia neonatorum.....	5	Typhoid fever.....	10
Pellagra.....	2	Whooping cough.....	174

**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 Feb. 22, 1935, pp. 267-279. A similar cumulative table will appear in the **PUBLIC HEALTH REPORTS** to be issued Mar. 29, 1935, and thereafter, at least for the time being, in the issue published on the last Friday of each month.)

**Plague**

*Argentina—Santa Fe.*—During the month of February 1935, one case of plague was reported at Santa Fe, Argentina.

*China—Manchuria.*—A report dated January 29, 1935, states that up to January 23, 1935, 78 deaths from pneumonic plague occurred near Kangping, Fengtien Province, Manchuria, and that up to January 21, 1935, 50 deaths from this disease had occurred in 6 villages of the Pe Wang Fu district, several miles northwest of Kangping.

**Smallpox**

*Egypt—Dakahliya Province.*—During the week ended February 2, 1935, 56 cases of smallpox with 3 deaths were reported in Dakahliya Province, Egypt.

**Typhus fever**

*Straits Settlements—Singapore.*—During the week ended January 5, 1935, one case of typhus fever was reported at Singapore, Straits Settlements.

**Yellow fever**

*Ivory Coast.*—During the week ended February 23, 1935, yellow fever was reported in Ivory Coast as follows: 1 case at Bobodiulasso, and 1 case at Ouagadougou.