PUBLIC HEALTH REPORTS

VOL. 35 MARCH 5, 1920. No. 10

INFLUENZA—PREVALENCE IN THE UNITED STATES.

A continued decline in the prevalence of influenza and in mortality from influenza and pneumonia (all forms) from the weeks ended February 14 and February 21 is definitely indicated for the week ended February 28.

Morbidity reports from State health departments to the Public Health Service show that in only three States was there any increase in the number of cases reported, while decreases were shown in all of the other States for which reports were received. These three States were all in the South—Alabama, Georgia, and Louisiana. In Georgia and Louisiana the increases were quite small, suggesting that the peak of the epidemic was about reached in these States.

TABLE 1.—*Influenza case reports. Number of cases of influenza occurring in various States as reported to the Public Health Service by State health departments.*

[States omitted are those from which no reports have been received. Blank spaces indicate that no report was received for the week. These reports are preliminary and subject to change.]

State.	Cases reported week ended January—					Cases reported week ended February—			
	3	10	17	24	31	7	14	21	28
Alabama				8	203	1,296	3,236	2,366	3,603
Arkansas	52	35	53	179	595	5,666	6,599	2,793	1,690
California	14	32	322	1,604	7,133	13,660	11,887	7,420	5,527
Connecticut	1	1	14	1,123	4,664	5,666	4,868	2,771	1,183
Delaware	1	1		5	21	86	78	43	36
District of Columbia	23	9	126	1,216	1,616	557	298	104	36
Florida	14	2	10	484	1,547	1,581	1,735	1,420	1,026
Georgia	10	27	27	95	617	3,256	5,411	7,809	8,210
Idaho		88	270	922	2,783	2,394			
Illinois	60	73	3,251	14,805	29,156	30,330	23,037	7,237	3,062
Indiana	31	18	44	1,714		7,811	7,503	3,904	2,038
Iowa	1	10	30	644	3,960	5,070	1,981	869	170
Kansas	22	17	45	1,130	8,582	16,960	17,699	10,026	3,590
Kentucky	41	45	75	170	878	2,536	6,067	4,295	
Louisiana	32	52	27	123	763	1,901	3,690	3,153	3,363
Maine	7	1	4		387	936	3,942	3,702	2,134
Maryland [1]						4,935	8,942	4,758	3,184
Massachusetts	41	40	54		3,730	9,731	12,389	[2] 4,375	[2] 2,395
Michigan						14,201	13,470	6,672	3,861
Minnesota					5,775	11,397	7,555	4,213	1,447
Missouri					4,043	5,359	1,696	466	
Mississippi						[3] 2,761	4,014	3,332	2,475
Montana	2		1	67	1,022	1,847	1,650	1,400	348
Nebraska		2	1	154	1,815	3,998	6,048	3,272	2,492
New Hampshire						610			
New Jersey	22	23	98	753	7,365	9,603	5,807	2,798	1,043
New Mexico	2	8	4	61	260	1,576	1,166	632	204
New York (exclusive of New York City)	52	31	61	555	4,755	11,616	13,259	11,304	5,330
New York City	42	100	384	5,690	30,456	21,388	8,091	3,030	1,069
North Carolina					3,356	12,892	25,571	18,439	8,398
North Dakota						946	497	[3] 178	

[1] Week ended Friday. [2] Five days only. [3] Six days only.

TABLE. 1.—*Influenza case reports. Number of cases of influenza occurring in various States as reported to the Public Health Service by State health departments*—Con.

State.	Cases reported week ended January—					Cases reported week ended February—			
	3	10	17	24	31	7	14	21	28
Ohio						10,479			
Oregon						1,042	1,318	1,971	1495
Pennsylvania						16,090	13,324	9,365	[1] 1,723
South Carolina					1,661	[2] 3,179	3,916	2,846	1,716
South Dakota			3	118		5,042	4,976	3,047	1,658
Tennessee						2,331	[1] 1,432		
Texas						11,265	6,788	1,035	588
Utah						1,489	228	96	
Vermont				25	89	272	796	1,314	1,071
Virginia					3,097	6,318	2,934	1,512	[2] 1,073
Washington				12	902	6,451	6,426	4,596	1,561
West Virginia					1,667	4,732	6,308	[2] 1,848	780
Wisconsin	6	3	67	1,944	6,739	14,328	10,310	6,274	3,131
Wyoming					1,372				
Total	476	618	4,971	33,601	141,009	295,584	266,942	156,685	81,710
Number of States reporting	20	22	22	24	31	43	40	39	35

[1] Five days only. [2] Six days only.

The excess mortality rate from influenza and pneumonia (all forms) over the mortality rate in the corresponding week of a normal year, for the group of large cities included in the Weekly Health Index of the Bureau of the Census for the week ended February 28 was 419, as against 875 for the previous week and 1,322 for the week ended February 14. The following table presents the excess annual death rates from these causes by weeks during the epidemic waves in 1920 and 1918 for the group of cities as a whole:

TABLE A.—*Comparison of the excess*[1] *annual mortality rate per 100,000 from influenza and pneumonia (all forms) by weeks during the 1920 epidemic with that for corresponding weeks in the 1918 epidemic in cities included in the Weekly Health Index of the Bureau of the Census, considered as a whole.*

Week ended—	Excess over corresponding week of median year.	Week ended—	Excess over corresponding week of median year.
1918.		1920.	
Sept. 14	−6	Jan. 3	−56
21	76	10	−55
28	326	17	−27
Oct. 5	1,028	24	184
12	2,557	31	746
19	4,592	Feb. 7	1,241
26	4,695	14	1,322
Nov. 2	3,332	21	875
9	1,832	28	419
16	999		
23	620		
30	526		
Dec. 7	617		
14	792		
21	801		
28	629		

[1] Excess over the mortality rate from the same causes in the corresponding week of the median year in the period 1910–1916. The weekly rates for the median year have been approximated by plotting the rate for the median year for each month (thus affording a rough "normal" seasonal curve) for each city and then by reading from the curve the indicated median rate at the midpoint for each week. The excess has been found by subtracting this median rate from the actual rate for the corresponding weeks in 1918 and 1920.

In a later publication some comparisons of the 1920 epidemic wave with the 1918 epidemic wave, and possibly earlier epidemics of influenza, will be presented for certain cities individually and as a group. A preliminary comparison for the group of cities as a whole, however, may be of interest at this time. If the curves of excess annual death rates from influenza and pneumonia (all forms) by weeks in the epidemic waves of 1918 and 1920 be fitted together at their peaks (Oct. 26, 1918, to correspond with Feb. 14, 1920), and the ratios computed of the 1920 rates to those for corresponding weeks of the epidemic wave in 1918, it will be seen that the ratios so far have been quite constant except for the first two weeks of the epidemic period, and for the week ended February 28. In computing these ratios, account has been taken of the fact that the death rates from influenza and pneumonia (all forms) immediately prior to the beginning of the present epidemic have been below "normal" (using the seasonal rate for the median year of 1910–1916 as the normal), and a provisional adjustment to the 1920 "norm" has been made by adding 55 to the annual rate (as given in Table A) for each week of the epidemic period in 1920. The ratios follow:

Weekly ratio of excess annual death rate from influenza and pneumonia (all forms) Jan. 11–Feb. 28, 1920, to that of corresponding week of 1918 epidemic wave, for certain large cities as a group.

Week ended—		Ratio.
1918	1920	
Sept. 28	Jan. 17	0.086
Oct 5	Jan. 24	.232
Oct. 12	Jan. 31	.313
Oct. 19	Feb. 7	.282
Oct. 26	Feb. 14	.293
Nov. 2	Feb. 21	.280
Nov. 9	Feb. 28	.253

From the foregoing it appears that, in comparison with the 1918 epidemic, (1) the present epidemic attained its peak in a shorter interval of time among the population of the forty-odd cities considered as a group; (2) after the second week the curves of the two epidemics were strikingly similar (the ratios ranging from .253 to .313); and (3) the excess mortality during the present epidemic so far has been well below a third of what it was in the same cities in the corresponding period of the 1918 epidemic.

Whether or not this ratio to the 1918 epidemic of between 25 and 30 will be maintained during the next few weeks can not, of course, be forecasted. The mortality rate from influenza and pneumonia (all forms) in 1918, it will be remembered, remained considerably above the "normal" for a number of weeks after the peak of the epidemic was reached; in fact, a second wave was experienced in a number of these cities, and the "normal" was not reached until the year 1919 was well advanced. The decreasing ratios for the two weeks ended February 28 suggest a more rapid decline in the present epidemic than that which occurred in 1918.

In all except 3 of the cities for which data are available the excess death rate from influenza and pneumonia (all forms) showed a decline during the week ended February 28. The 3 cities forming the exceptions were Birmingham, Cincinnati, and Nashville. As shown in Table B, 8 cities reached their peaks in excess mortality during the week ended February 21, 18 during the week ended February 14, 9 during the week ended February 7, and 2 during the week ended January 31. Thirty-seven cities of the 40 for which data are available apparently have passed their peaks. For purposes of comparison the excess annual death rate from the same causes in the peak week of the 1918 epidemic is also given for each city and the ratios of the peak rate in 1920 to that of 1918 have been computed. The ratios show a wide variation—from 11 to 152.

TABLE B.—*Excess of mortality [1] from influenza and pneumonia (all forms) in peak week of 1920 epidemic compared with that of 1918 epidemic in certain cities.*

City.	Week in which peak occurred.		Excess annual rate per 100,000—Peak week.		Per cent which 1920 peak week excess rate is of 1918 peak week excess rate. [2]
	1918	1920	1918	1920	
Chicago, Ill.	Oct. 26	Jan. 31	4,620	1,886	41
Washington, D. C.	Oct. 19	...do...	7,989	2,072	26
Dayton, Ohio	Oct. 26	Feb. 7	5,352	1,611	30
Kansas City, Mo.	Nov. 2	...do...	3,173	3,362	106
Milwaukee, Wis.	Oct. 26	...do...	1,915	1,927	101
Minneapolis, Minn.	...do...	...do...	1,968	2,065	105
New York, N. Y.	...do...	...do...	5,091	1,705	34
St. Louis, Mo.	Nov. 2	...do...	1,581	2,399	152
St. Paul, Minn.	Nov. 16	...do...	2,664	1,465	55
Syracuse, N. Y.	Oct. 19	...do...	8,085	2,651	33
Toledo, Ohio	Oct. 26	...do...	2,642	865	33
Albany, N. Y.	...do...	Feb. 14	8,535	980	11
Baltimore, Md.	Oct. 19	...do...	10,419	1,745	17
Boston, Mass.	Oct. 5	...do...	7,925	1,399	18
Cambridge, Mass.	...do...	...do...	6,461	1,058	16
Cleveland, Ohio	Nov. 2	...do...	4,282	1,483	35
Columbus, Ohio	Oct. 26	...do...	2,623	2,519	96
Grand Rapids, Mich.	[3]	...do...	[3]	1,285	[3]
Indianapolis, Ind.	Oct. 19	...do...	2,210	2,004	91
Los Angeles, Calif.	Nov. 2	...do...	3,435	646	19
Louisville, Ky.	Oct. 26	...do...	3,770	874	23
Memphis, Tenn.	Oct. 19	...do...	6,042	1,836	30
Newark, N. J.	Oct. 26	...do...	5,123	1,503	29
Omaha, Nebr.	Oct. 19	...do...	4,547	1,802	40
Pittsburgh, Pa.	Nov. 9	...do...	6,726	3,297	49
Providence, R. I.	Oct. 19	...do...	4,948	1,421	29
Richmond, Va.	...do...	...do...	6,275	857	14
Rochester, N. Y.	Oct. 26	...do...	4,077	824	20
San Francisco, Calif.	Nov. 2	...do...	7,927	1,341	17
Atlanta, Ga.	Oct. 26	Feb. 21	2,471	[4] 1,998	[4] 81
Buffalo, N. Y.	...do...	...do...	7,880	1,372	17
Fall River, Mass.	Oct. 12	...do...	1,895	563	70
Lowell, Mass.	...do...	...do...	6,644	1,457	22
New Haven, Conn.	Oct. 26	...do...	6,083	1,902	32
Oakland, Calif.	Nov. 2	...do...	5,679	1,341	24
Philadelphia, Pa.	Oct. 19	...do...	13,515	1,551	11
Worcester, Mass.	Oct. 12	...do...	6,813	1,215	18

[1] Excess over the mortality rate from same causes in the corresponding week of the median year in the period 1910-1916. The weekly rates for the median year have been approximated by plotting the rate for the median year for each month (thus affording a rough "normal" seasonal curve) for each city and then by reading from the curve the indicated median rate at the midpoint for each week. The excess has been found by subtracting this median rate from the actual rate for the corresponding week in 1918 and 1920.

[2] The percentages appearing in similar tables in previous issues of the Weekly Health Reports during February, 1920, have been revised upon the basis of later information.

[3] Data not available.

[4] Including pneumonia (all forms) only, for 1920.

In Table II is given the number of deaths from influenza and pneumonia (all forms) by weeks in January and February, in certain large cities, as reported in the Weekly Health Index of the Bureau of the Census.

TABLE II.—*Deaths from influenza and pneumonia (all forms) in certain large cities, by weeks, in December, 1919, and in January and February, 1920.*

City.	1919: Week ended—				1920: Week ended—								
	December—				January—					February—			
	6	13	20	27	3	10	17	24	31	7	14	21	28
Albany, N. Y.	4	5	5	6	6	3	2	3	14	19	29	23	20
Atlanta, Ga.	[1] 13	[1] 8	[1] 9	[1] 6	[1] 6	[1] 17	[1] 10	[1] 10	15	32	[1] 68	[1] 89	[1] 66
Baltimore, Md.	21	28	32	28	30	20	35	24	59	122	268	231	123
Birmingham, Ala.	18	8	11	9	11	[1] 11	[1] 8	16	14	22	18	59	70
Boston, Mass.	9	21	[2] 0	23	24	28	28	45	85	158	255	216	136
Buffalo, N. Y.	15	9	8	15	13	10	7	19	17	67	141	145	98
Cambridge, Mass.	1	1	4	2	4	8	7	8	14	22	28	23	13
Chicago, Ill.	57	80	92	93	98	107	153	472	1,109	1,005	494	243	136
Cincinnati, Ohio.	7	11	15	17	18	14	12	17	25	38	62	81	99
Cleveland, Ohio.	21	17	23	[1] 14	28	21	25	26	41	158	258	177	125
Columbus, Ohio.	5	8	7	3	5	15	9	8	22	59	118	66	48
Dayton, Ohio.	1	6	5	1	7	4	7	13	46	47	32	24	7
Denver, Colo.	11	8	10	11	15	21	18	24	49	159	160	67	44
Detroit, Mich.	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	324	740	481	185	101
Fall River, Mass.	2	3	5	3	3	7	10	5	3	5	16	25	19
Grand Rapds, Mich.	3	2	4	2	3	1	4	2	6	31	37	32	14
Indianapolis, Ind.	8	11	12	13	[1] 3	18	[1] 16	21	36	92	124	72	49
Jersey City, N. J.	5	18	[1] 3	19	12	14	14	24	64	[2]	[2]	78	37
Kansas City, Mo.	9	14	[2]	12	12	13	29	96	120	220	167	74	53
Los Angeles, Calif.	13	11	16	6	18	16	18	19	22	42	88	84	57
Louisville, Ky.	11	7	4	10	9	10	10	9	18	40	52	48	30
Lowell, Mass.	4	4	2	5	3	5	4	2	7	12	10	36	29
Memphis, Tenn.	9	12	8	8	15	12	12	11	10	22	64	61	46
Milwaukee, Wis.	10	[1] 6	21	15	15	25	[1] 13	45	141	184	121	41	31
Minneapolis, Minn.	5	14	11	10	20	12	10	9	63	168	125	53	[3] 8
Nashville, Tenn.	9	10	7	4	4	6	11	6	12	8	23	47	62
Newark, N. J.	9	13	9	9	15	17	14	30	55	116	142	93	54
New Haven, Conn.	6	6	8	6	11	6	8	10	19	20	60	68	31
New Orleans, La.	11	16	11	20	18	27	27	27	32	36	62	89	[3] 37
New York, N. Y.	137	149	162	175	195	218	261	511	1,308	1,988	1,796	987	513
Oakland, Calif.	6	2	3	5	7	4	8	20	24	55	54	60	[3] 19
Omaha, Nebr.	4	5	6	12	5	4	7	13	45	62	73	32	28
Philadelphia, Pa.	57	51	69	43	64	55	75	108	153	289	564	620	373
Pittsburgh, Pa.	38	30	31	36	55	47	53	55	76	168	417	290	193
Portland, Oreg.	[1] 3	[1] 5	[1] 9	[1] 5	[1] 4	[1] 13	[1] 8	[1] 9	[1] 15	21	57	52	[2]
Providence, R. I.	2	6	10	11	6	12	13	8	14	39	88	82	57
Richmond, Va.	3	5	1	2	6	2	9	6	21	35	38	28	13
Rochester, N. Y.	8	7	5	4	8	13	7	12	23	50	52	27	19
St. Louis, Mo.	27	27	33	35	47	57	41	73	236	401	282	129	60
St. Paul, Minn.	7	1	8	7	7	4	[2]	26	72	80	63	26	[3] 7
San Francisco, Calif.	10	11	11	15	20	14	26	48	59	115	137	113	89
Seattle, Wash.	5	9	7	7	9	[1] 2	4	7	12	32	98	78	59
Spokane, Wash.	3	2	5	2	0	4	3	3	12	32	64	33	[3] 11
Syracuse, N. Y.	4	4	2	6	6	9	8	10	31	89	78	29	23
Toledo, Ohio.	3	7	8	3	8	9	8	9	18	54	50	51	26
Washington, D. C.	13	19	23	14	32	22	27	81	181	164	92	55	30
Worcester, Mass.	11	13	6	6	5	10	9	7	14	15	44	52	34

[1] Deaths from pneumonia (all forms) only.
[2] No reports.
[3] Deaths from influenza only.

In Table III is presented the annual mortality rate per 100,000 from influenza and pneumonia (all forms) by weeks in December, January, and February for those cities in the Weekly Health Index for which population estimates are available.

TABLE III.—*Annual death rate per 100,000 from influenza and pneumonia (all forms) by weeks ended Dec. 6, 1919, to Feb. 28, 1920.*[1]

City.	1919: week ended—				1920: Week ended—								
	December—				January—					February—			
	6	13	20	27	3	10	17	24	31	7	14	21	28
Albany, N.Y.	185	232	232	278	278	139	93	139	649	880	1,350	1,065	926
Atlanta, Ga.	[2]336	[2]207	[2]233	[2]155	[2]155	[2]439	[2]258	[2]258	388	827	[2]1,758	[2]2,300	[2]1,706
Baltimore, Md.	163	218	249	218	233	156	272	187	459	949	2,086	1,797	957
Birmingham, Ala.	475	211	290	237	290	[2]290	[2]211	422	369	580	475	1,556	1,847
Boston, Mass.	60	139	[3]	153	159	186	186	299	564	1,049	1,693	1,434	903
Buffalo, N.Y.	156	99	88	165	143	110	77	209	187	738	1,554	1,598	1,080
Cambridge, Mass.	47	47	187	94	187	374	328	374	655	1,029	1,310	1,076	608
Chicago, Ill.	114	161	185	187	197	215	307	948	2,227	2,018	993	488	273
Cincinnati, Ohio.	87	137	187	212	224	175	150	212	312	474	773	1,010	1,236
Cleveland, Ohio.	135	109	148	[2]90	180	135	161	167	264	1,016	1,660	1,139	894
Columbus, Ohio.	116	185	162	69	116	347	208	185	509	1,366	2,731	1,528	1,111
Dayton, Ohio.	40	239	200	40	279	199	279	519	1,336	1,876	1,277	958	279
Fall River, Mass.	81	122	203	122	122	284	406	203	122	203	650	1,015	772
Grand Rapids, Mich.	115	77	154	77	115	39	154	77	231	1,193	1,424	1,232	539
Indianapolis, Ind.	144	198	215	233	[2]54	328	[2]287	377	646	1,652	2,227	1,293	880
Jersey City, N.J.	82	294	[2]49	311	196	229	229	393	1,047	[4]	[4]	1,276	605
Kansas City, Mo.	150	233	[3]	199	199	216	483	1,595	1,994	3,656	2,775	1,230	881
Los Angeles, Calif.	119	101	147	55	165	147	165	174	202	385	807	771	528
Louisville, Ky.	236	150	86	215	193	215	215	193	387	859	1,117	1,031	645
Lowell, Mass.	191	191	96	239	143	293	191	96	335	574	478	1,721	1,386
Memphis, Tenn.	303	404	270	270	505	404	404	371	337	741	2,156	2,055	1,550
Milwaukee, Wis.	115	[2]80	241	172	172	287	[2]149	517	1,621	2,116	1,391	471	336
Minneapolis, Minn.	68	190	150	136	272	163	136	122	857	2,285	1,700	721	[2]109
Nashville, Tenn.	394	437	306	175	175	262	481	262	525	350	1,006	2,056	2,712
Newark, N.J.	109	158	109	109	182	207	170	365	669	1,411	1,727	1,131	657
New Haven, Conn.	202	202	269	202	370	202	269	337	640	673	2,020	2,290	572
New Orleans, La.	159	218	150	273	246	368	368	368	436	491	846	1,214	[2]505
New York, N.Y.	137	149	162	175	195	218	261	511	1,308	1,987	1,795	987	513
Oakland, Calif.	146	49	73	122	170	97	195	487	584	1,339	1,315	1,461	[3]463
Omaha, Nebr.	116	145	174	347	145	116	202	376	1,302	1,793	2,112	926	810
Philadelphia, Pa.	169	151	204	127	189	163	222	320	453	856	1,670	1,835	1,104
Pittsburgh, Pa.	334	264	272	316	483	413	466	483	668	1,476	3,665	2,549	1,696
Providence, R.I.	40	119	198	218	119	237	257	158	277	771	1,741	1,622	1,127
Richmond, Va.	97	162	32	65	195	65	292	195	681	1,136	1,233	908	422
Rochester, N.Y.	158	138	98	79	158	256	138	296	453	984	1,024	532	374
St. Louis, Mo.	180	180	221	234	314	381	274	488	1,578	2,681	1,885	862	401
St. Paul, Minn.	142	20	162	[4]2	142	81	[4]	526	1,457	1,619	1,275	526	[2]142
San Francisco, Calif.	109	120	120	163	218	153	283	523	643	1,253	1,493	1,231	970
Syracuse, N.Y.	129	129	65	194	194	291	258	323	1,001	2,875	2,520	937	743
Toledo, Ohio.	60	139	159	60	159	180	159	180	358	1,074	994	1,014	517
Washington, D.C.	169	247	299	182	415	286	351	1,052	2,350	2,129	1,194	714	389
Worcester, Mass.	330	390	180	180	150	300	270	210	420	450	1,321	1,561	1,021

[1] The weekly rate for the median year in the period 1910-1916 is presented as a "normal" rate. It is, of course, only approximate, and was found by plotting the rate for the median year for each month (thus affording a rough "normal" seasonal curve) for each city, and then by reading from the curve the indicated median rate at the midpoint for each week.
[2] For pneumonia only.
[3] Influenza only.
[4] No report.

Table IV is based on Table III and shows the excess of the annual death rate from influenza and pneumonia (all forms), by weeks, in January and February, over the seasonal "normal" in the same cities.

TABLE IV.—*Excess of annual death rate per 100,000 from influenza and pneumonia (all forms) by weeks, Dec. 6, 1919, to Feb. 28, 1920, over that in corresponding week of median year (1910–1916) in certain large cities.*[1]

City.	1919: Week ended—				1920: Week ended—								
	December—				January—					February—			
	6	13	20	27	3	10	17	24	31	7	14	21	28
Albany, N. Y.	5	28	0	2	− 54	−251	−314	−267	250	493	980	719	602
Atlanta, Ga.	[2] 87	[2]− 56	[2]− 36	[2]−100	[2]− 85	[2] 209	[2] 33	[2] 30	149	574	[2]1,482	[2]1,998	[2]1,381
Baltimore, Md.	− 81	− 47	− 41	− 97	−106	−204	− 96	−180	101	604	1,745	1,457	613
Birmingham, Ala.	218	− 77	− 9	− 62	− 5	[2]− 1	[2]− 83	115	44	243	131	1,210	1,502
Boston, Mass.	−160	−101	([3])	−122	−131	−113	−114	− 1	266	753	1,399	1,137	600
Buffalo, N. Y.	− 31	−108	−124	− 48	− 69	−102	−134	− 3	− 27	522	1,334	1,372	847
Cambridge, Mass.	−155	−171	− 46	−151	− 68	111	62	107	391	771	1,058	824	350
Chicago, Ill.	−110	− 77	− 67	− 87	−102	−118	− 37	604	1,886	1,681	660	158	−55
Cincinnati, Ohio.	− 95	− 51	− 12	− 4	− 8	− 71	−108	− 54	41	199	497	734	959
Cleveland, Ohio.	− 32	− 71	− 36	[2]− 92	0	− 41	− 13	− 6	91	843	1,483	954	609
Columbus, Ohio.	− 74	− 26	− 57	−151	−103	130	− 6	− 27	299	1,156	2,519	1,309	883
Dayton, Ohio.	−123	70	20	−159	51	−101	11	249	1,567	1,611	1,017	704	25
Fall River, Mass.	− 89	− 65	− 2	−106	−128	5	99	−141	−272	−232	200	563	322
Grand Rapids, Mich.	43	− 3	60	− 33	− 15	−105	2	− 79	77	1,047	1,285	1,095	396
Indianapolis, Ind.	− 6	39	46	42	[2]−168	62	[2] 11	101	587	1,419	2,004	1,071	654
Jersey City, N. J.	−147	44	[2]−214	35	− 90	− 64	− 67	98	755	([3])	([3])	989	317
Kansas City, Mo.	− 10	60	([3])	− 12	− 31	− 31	221	1,320	1,708	3,362	2,475	930	595
Los Angeles, Calif.	− 20	− 53	− 18	−118	− 16	− 39	− 23	− 13	19	211	646	626	391
Louisville, Ky.	58	− 32	−100	20	− 12	− 3	− 13	− 41	151	620	874	778	375
Lowell, Mass.	3	− 20	−144	− 28	−145	− 66	−122	−220	27	283	207	1,457	1,127
Memphis, Tenn.	64	146	− 6	− 24	193	81	74	41	10	419	1,836	1,733	1,224
Milwaukee, Wis.	− 30	[2] 70	87	11	3	111	[2]− 32	332	1,434	1,927	1,201	276	364
Minneapolis, Minn.	− 58	59	10	− 20	88	− 41	− 84	−106	629	2,065	1,494	538	[4]−57
Nashville, Tenn.	120	149	9	−126	−130	− 47	169	− 55	193	−17	613	1,638	2,280
Newark, N. J.	− 86	− 54	−121	−136	− 77	− 64	−106	91	408	1,168	1,503	911	428
New Haven, Conn.	− 3	− 31	− 3	−120	0	−222	−169	103	208	271	1,630	1,902	80
New Orleans, La.	− 87	− 25	−101	9	− 36	67	50	35	92	141	492	860	[4] 157
New York City, N. Y.	− 81	− 85	− 82	− 75	− 61	− 42	− 4	241	1,032	1,705	1,505	689	206
Oakland, Calif.	− 8	−130	−113	− 66	− 16	− 84	21	395	431	1,196	1,185	1,341	[4] 348
Omaha, Nebr.	−101	− 93	− 76	89	−117	−151	− 70	95	1,007	1,488	1,802	616	507
Philadelphia, Pa.	− 17	− 56	− 25	−122	− 76	−116	− 64	29	163	567	1,384	1,551	822
Pittsburgh, Pa.	14	− 61	− 60	− 29	120	31	75	89	280	1,099	3,297	2,182	1,322
Providence, R. I.	−137	− 63	− 9	− 8	−127	− 34	− 33	−143	− 32	457	1,421	1,300	803
Richmond, Va.	−127	− 90	−246	−238	−130	−280	− 70	− 74	308	761	857	531	46
Rochester, N. Y.	12	− 12	− 60	− 96	− 41	38	− 87	11	235	778	824	334	176
St. Louis, Mo.	− 31	− 49	− 29	− 45	15	72	− 39	177	1,278	2,390	1,628	618	156
St. Paul, Minn.	37	−102	24	− 5	− 12	− 79	([3])	364	1,298	1,465	1,125	376	[4] 10
San Francisco, Calif.	− 69	− 81	− 94	− 57	− 4	− 68	67	319	462	1,091	1,341	1,081	819
Syracuse, N. Y.	− 27	− 33	−104	17	10	100	59	115	784	2,651	2,291	707	515
Toledo, Ohio.	− 69	15	36	− 70	19	24	− 17	− 12	156	865	780	796	299
Washington, D. C.	− 25	41	82	− 46	175	34	89	782	2,072	1,845	901	409	66
Worcester, Mass.	173	210	− 26	− 54	−117	1	− 50	−123	79	104	973	1,215	679

[1] The weekly rates for the median year in the period (1910–1916) have been approximated by plotting the rate for the median year for each month (thus affording a rough normal seasonal curve) for each city, and then by reading from the curve the indicated median rate at the midpoint for each week. The excess has been found by subtracting this median rate from the actual rate for each week in 1920. When the difference is minus it is so indicated.

[2] For pneumonia only.

[3] No report.

[4] For influenza only.

In order to facilitate the comparison of the present epidemic in the cities included in the Weekly Health Index with the epidemic of 1918 for the same cities, the excess mortality rate from influenza and pneumonia (all forms) by weeks, from September 8 to November 30, 1918, is shown in Table V. These excess rates may be compared with those given in Table IV. It should be noted that the excess rates as computed in Tables IV and V are only approximated, but they are believed to be sufficiently accurate to afford a fair basis for determining the mortality from influenza and pneumonia (all forms) which properly may be attributed to epidemic conditions.

TABLE V.—*Excess of annual death rate per 100,000 from influenza and pneumonia (all forms), by weeks, Sept. 8 to Nov. 30, 1918, over that in corresponding week of median year (1910–1916) in 42 large cities.*[1]

City.	Sept. 14.	Sept. 21.	Sept. 28.	Oct. 5.	Oct. 12.	Oct. 19.	Oct. 26.	Nov. 2.	Nov. 9.	Nov. 16.	Nov. 23.	Nov. 30.
Albany, N. Y.	37	.....	31	29	2,018	5,025	8,535	7,087	2,300	800	41	488
Atlanta, Ga.	110	.....	15	82	666	1,972	2,471	849	633	499	402	643
Baltimore, Md.	−37	−50	43	794	4,253	10,419	8,194	2,915	958	189	53	65
Birmingham, Ala.	−23	−26	−33	322	1,493	2,770	3,369	2,095	1,061	1,056	990	1,694
Boston, Mass.	188	1,634	5,015	7,925	6,680	3,765	1,350	753	343	143	172	156
Buffalo, N. Y.	17	56	96	444	1,892	5,752	7,880	4,894	1,723	743	217	216
Cambridge, Mass.	253	109	4,829	6,461	5,285	2,845	867	759	189	262	248	140
Chicago, Ill.	−53	−50	79	728	1,988	4,105	4,620	2,801	1,316	600	305	223
Cincinnati, Ohio.	− 1	−21	− 4	137	749	2,291	3,386	2,957	1,882	1,046	1,137	997
Cleveland, Ohio.	−26	− 9	− 2	44	177	928	2,818	4,282	3,256	2,132	1,403	1,113
Columbus, Ohio.	−28	40	83	170	579	1,613	2,623	2,084	1,057	721	880	1,315
Dayton, Ohio.	33	− 9	23	132	1,155	5,248	5,352	4,463	2,535	688	45	359
Fall River, Mass.	.....	264	715	3,863	8,095	7,730	3,863	1,533	869	447	267	128
Grand Rapids, Mich.	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,059	788	628
Indianapolis, Ind.	− 6	44	111	356	745	2,210	1,968	1,402	926	735	967	1,653
Jersey City, N. J.	−65	− 2	242	973	3,666	.....	6,823	.....	.....	.....	.....	.....
Kansas City, Mo.	28	.....	103	47	1,521	2,713	3,117	3,178	2,177	1,198	921	1,461
Los Angeles, Calif.	36	−14	−42	70	576	1,144	2,625	3,435	2,759	2,664	1,688	1,405
Louisville, Ky.	20	143	26	228	1,889	3,764	3,770	1,348	1,098	678	584	1,159
Lowell, Mass.	−15	311	1,451	4,358	6,644	5,441	3,902	1,311	252	242	375	−73
Memphis, Tenn.	.....	.....	.....	.....	2,624	6,042	5,479	2,254	.....	392	402	−20
Milwaukee, Wis.	.....	− 4	91	108	711	1,215	1,915	1,328	971	675	427	373
Minneapolis, Minn.	−19	.....	97	120	592	1,280	1,963	1,541	1,191	1,151	575	490
Nashville, Tenn.	21	.....	45	124	5,538	8,327	5,420	2,206	2,135	446	464	747
Newark, N. J.	.....	9	27	565	2,205	4,799	5,123	4,444	2,014	1,200	687	501
New Haven, Conn.	.....	−32	401	1,102	2,479	4,906	6,033	5,519	2,615	1,459	503	621
New Orleans, La.	−23	.....	−54	294	1,852	8,385	9,156	4,368	1,957	822	281	356
New York, N. Y.	−20	11	93	629	2,010	4,107	5,091	4,259	2,122	885	473	223
Oakland, Calif.	19	.....	−32	− 9	354	936	3,271	5,679	3,728	1,603	811	164
Omaha, Nebr.	−53	.....	−26	121	1,887	4,547	4,164	2,618	.....	1,245	929	790
Philadelphia, Pa.	− 3	31	157	2,014	7,716	13,515	8,841	3,448	986	350	154	106
Pittsburgh, Pa.	−18	14	146	430	805	3,197	4,816	5,269	6,726	4,369	3,070	2,293
Providence, R. I.	3	115	348	1,868	3,587	4,948	4,210	2,558	1,162	575	502	290
Richmond, Va.	66	31	57	1,246	4,149	6,275	4,025	2,166	760	586	243	577
Rochester, N. Y.	−42	−49	61	32	612	1,902	4,077	3,989	1,914	886	646	585
St. Louis, Mo.	15	17	57	82	478	1,135	1,436	1,581	1,378	1,358	1,089	1,374
St. Paul, Minn.	21	.....	12	−32	1,177	1,458	1,091	2,000	2,141	2,664	1,795	1,306
San Francisco, Calif.	−28	53	55	50	92	1,300	5,899	7,927	4,397	2,041	857	466
Syracuse, N. Y.	.....	.....	1,150	4,410	6,991	8,085	4,425	2,088	784	619	83	76
Toledo, Ohio.	−20	.....	30	−13	101	886	2,642	2,168	1,575	769	690	421
Washington, D. C.	68	52	373	2,174	6,257	7,989	4,955	2,240	584	394	312	364
Worcester, Mass.	141	438	2,955	5,891	6,813	4,702	2,465	1,662	.....	272	744	462

[1] The weekly rates for the median year in the period 1910–1916 have been approximated by plotting the rate for the median year for each month (thus affording a rough "normal" seasonal curve) for each city, and then by reading from the curve the indicated median rate at the mid-point for each week. The excess has been found by subtracting this median rate from the actual rate for each week in 1918. When the difference is "minus" it is so indicated.

THE EFFICIENCY OF CERTAIN DEVICES USED FOR THE PROTECTION OF SAND BLASTERS AGAINST THE DUST HAZARD.

C.-E. A. WINSLOW, Professor of Public Health, Yale School of Medicine, Senior Sanitarian, (R) United States Public Health Service; LEONARD GREENBURG, Assistant Sanitary Engineer, (R) United States Public Health Service; and E. H. REEVES, Scientific Assistant, United States Public Health Service.

The Dust Problem in Sand Blasting.

In most industrial plants the protection of the worker against the hazard of industrial dusts can be best accomplished by keeping the dust content of the air of the workroom itself down to a reasonable level. The control of the dust in the workroom air is effected, in such cases, either by substituting wet processes for dry grinding procedures and the like, by carrying on dust-producing operations in inclosed spaces, or by equipping such devices as emery wheels and buffing wheels with exhaust hoods and suction fans. The success which may be attained by the last of these three means was

discussed in a paper published in Public Health Reports for March 7, 1919, pages 427–449.

In other industrial processes, as in certain packing operations, in marble and granite working, and in the sand blasting of large castings, it is impossible to render the general air of the work place sufficiently free from dust to avoid danger of injury to the respiratory tract of the worker. In such cases as this, protection against the dust hazard can only be attained by the wearing of helmets, masks, or respirators, which will either filter out the dust particles from the air before it is drawn into the respiratory tract, or exclude the surrounding air more or less completely from the nose and mouth and supply pure air for breathing from some other source. It is difficult to accomplish these ends without interfering seriously with the comfort of the person wearing the helmet or respirator. A large number of devices designed to protect the worker against dust are on the market, but the discomfort produced in practice prevents the use of many of them; while those of simpler construction, which are less objectionable to the worker, are frequently of more than doubtful efficiency.

It seems essential as a prerequisite for the standardization of protective measures in this field to determine first what results may be actually accomplished in the way of dust control by different types of masks, helmets, and respirators, and then to weigh carefully the efficiency of each piece of apparatus as balanced against the discomfort which may reasonably be expected to militate against its actual use.

Previous Studies of the Efficiency of Helmets and Respirators Designed for the Protection of the Worker in Dusty Trades.

The most extensive previous studies of this subject which have come to our attention were made in the Hygienic Institute of the University of Berlin, and are to be found in volume 68 of the Zeitschrift für Hygiene for 1911. In the first of these papers Kobrak describes a special form of mask designed especially for protection against infectious droplets and dust, and in the second paper Schablowski reports an extensive series of studies on the efficiency of various types of respirators used for protection against industrial dusts. Both observers used bacterial spores as a measure of the purifying effect exerted by the devices studied. In Schablowski's experiments the industrial dusts studied (cotton, cement, basic slag, and rouge) were intimately mixed with a suspension of saprophytic spores, redried and blown into the air of an experimental chamber. A person equipped with one of the protective devices under examination, and a control individual with no such protection, entered the chamber, the noses of both being plugged with sterile cotton in amount sufficient to filter out the dust contained in the air without

interfering too seriously with respiration. At the close of the experiment the cotton was washed in sterile water, gelatin plates were made, and the percentage removal of bacterial spores determined by comparing the count from the cotton in the nose of the unprotected individual with that in the nose of the individual wearing the mask or respirator. It was assumed that the removal of bacterial spores would correspond with the removal of the dust particles with which they were mingled. In a few cases control studies were made by direct chemical determinations of the amount of rouge collected by the cotton filters in the nose.

A large number of different types of respirators and helmets were studied by Schablowski, using the methods outlined above. The removal effected varied from 11 to 89 per cent, the latter result being attained by the use of the Kobrak mask with *Moellertuch* as a filtering material. The method used in these studies is ingenious, but the opportunities for experimental errors in the bacteriological technique involved are very considerable, and the assumption that the efficiency of dust removal will vary with the removal of bacterial spores mixed with the dust is a somewhat doubtful one.

A more recent study of the efficiency of respirators is reported by the Miners' Phthisis Prevention Committee of South Africa in its General Report issued in 1916 (pp. 28–30). Nine types of respirators were studied, a sugar filter being used to determine the respective dust content of normal mine air, and of similar air passed through the respirators. Before blasting, the mine air contained from 1 to 10 milligrams of dust per cubic meter, and the same air after passing the various respirators contained from 0.5 to 1.3 milligrams. The removal effected by the various types of respirators varied between 30 and 88 per cent. After blasting, the mine air contained from 41 to 63 milligrams of dust per cubic meter, and the dust after passing the respirators contained from 13 to 63 milligrams. The removal effected varied from zero to 77 per cent. The results obtained before and after blasting with the same respirator vary widely. For example, one type of respirator effected a 75 per cent removal before blasting and produced no reduction at all after blasting. In view of these wide differences it seems probable that local variations in the dust content of the mine air must have been considerable.

Studies made in England and in this country during the war have made contributions of the first importance to the art of constructing efficient and practical respirators for protection against toxic gases. The results obtained are not, however, directly applicable to the somewhat different problem of dealing with industrial dusts.

It seems most important to obtain more detailed and accurate information in regard to the actual efficiency of respirators of the various types actually used in industrial plants in the United States,

and the Palmer apparatus used by the writers in earlier investigations offers an excellent means of conducting investigations of this kind. We therefore welcomed the opportunity to undertake a study of this sort in connection with problems that had arisen in the sand-blasting department of a large automobile factory in Connecticut.

Description of Installation and of Methods used in the Present Study.

Description of the sand-blasting room in which the present study was conducted.—In the plant where the present study was conducted, the sand blast is used for cleaning and preparing the metal parts of automobiles for subsequent operations. The equipment in the workroom where this process is carried on consists of three sand-blasting cabinets, two horizontal sand-blasting barrels, each 36 by 46 inches, and one small inclined spindle tumbling barrel. The sand-blasting barrels and the tumbling barrel present no problems in dust control, for the sand-blasting barrels require attention only while being filled and emptied, remaining closed during actual operation, and are equipped with an exhaust system by means of which the residual dust in the air of the barrel is exhausted; while the tumbling barrel is used only to polish and clean small metal parts by means of sawdust.

The sand-blasting cabinets with which our study deals are each 8.5 feet wide, 11.5 feet long, and 8.5 feet high, and are constructed of 16-gauge sheet iron, with wire glass roofs. Each cabinet is provided with four 12 by 16 inch openings in the roof for the admission of fresh air and with a 45-inch planing mill fan which exhausts air through a perforated floor.

The general method of operation will be made clear by reference to Figure I. The sand from the sand-blast machine is forced by compressed air under 20 to 25 pounds pressure through the hose and nozzle against the material to be treated. The sand after use falls through the perforated floor into hoppers (4 for each cabinet) in a pit beneath, from which it is carried by a 45-inch planing mill fan into a separator (A). This separator takes out and returns to the sand-blast machine any sand that is large enough to be used again. The exhaust air with the remaining finer sand then passes through the fan and into a roof separator (B), where the residual sand is finally deposited, the sand returning by gravity to a sand can in the room below, while the air escapes to the atmosphere. One fan handles the sand from the hoppers of all three of the cabinets. The hoppers below the sand-blast chamber are not in structural connection with it, and a certain amount of sand and dust finds its way out into the pit in which the hoppers are located.

The finer material in the air of this pit is exhausted by another 45-inch planing mill fan and carried to an independent roof separator (C). One of these fans is provided for each of the three pits. The fan serving the hoppers and the three fans serving the pits all cooperate in producing a strong down draft through the perforated floors of the cabinets. The sand from separator A being fairly coarse is used again in the cabinet from which it came. The sand

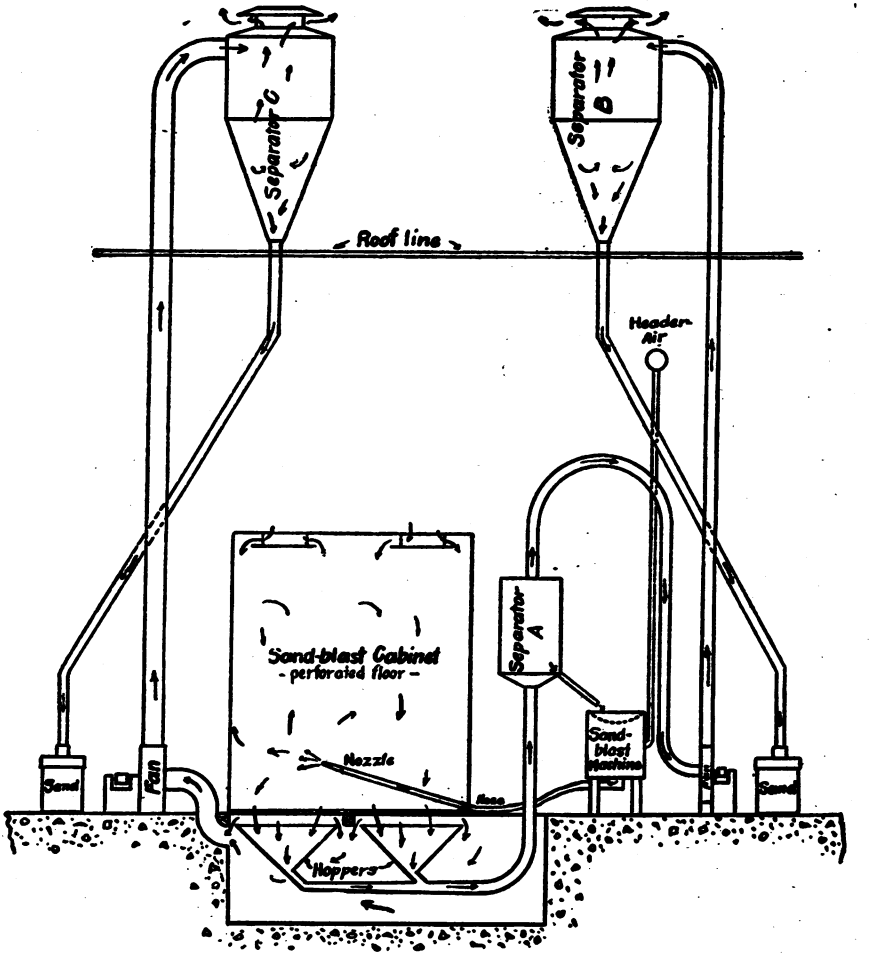

FIGURE 1.—Schematic layout of unit sandblasting installation showing cycle of sand and air.

from separator B is finer and is used in special work. The material which collects in separator C is too fine to be of any value and is discarded.

The sand-blast operators in this plant are provided with respirators of the ordinary "muzzle" type with a rubber body fitting over mouth and nose, an air filter, composed of two layers of muslin cloth having about 75 meshes to the inch, and a piece of sponge

Fig. 2.—Worker equipped with respirator.

Fig. 3.—Worker equipped with respirator and helmet.

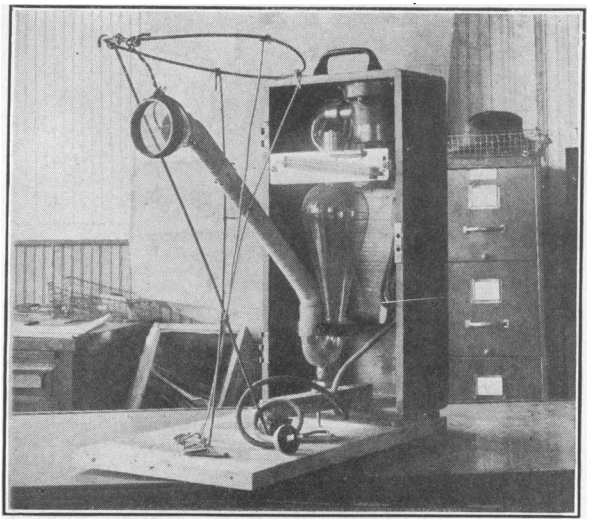

Fig. 4.—Sampling apparatus as used for determinging dust content of normal cabinet air.

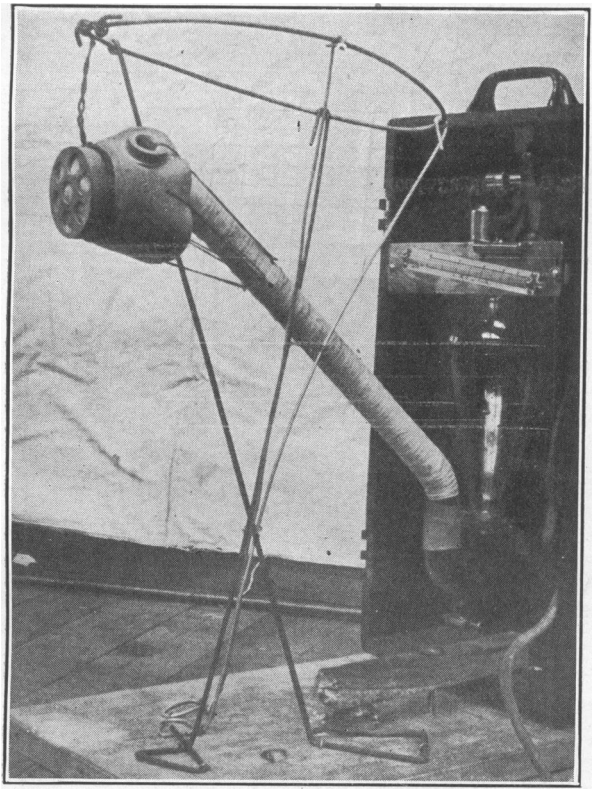

Fig. 5.—Sampling apparatus as used for determining the efficiency of the respirator alone.

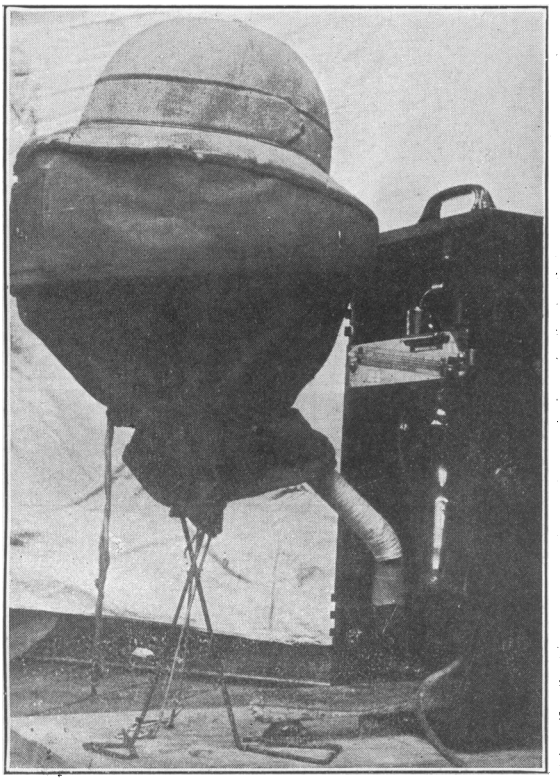

Fig. 6.—Sampling apparatus as used for determining the efficiency of the helmet.

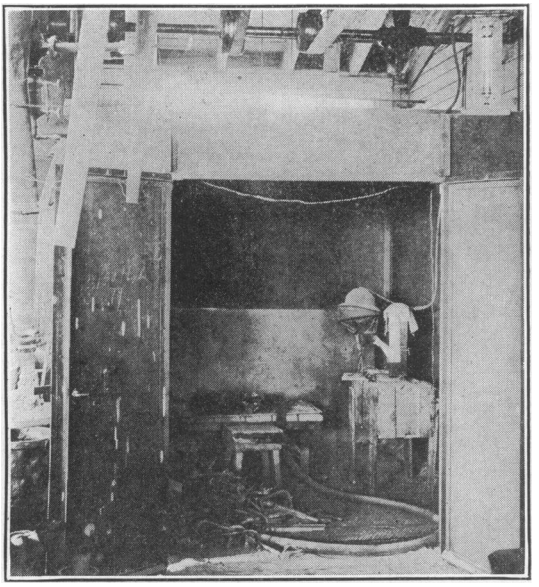

Fig. 7.—General view of sandblast cabinet, showing apparatus ready for sampling dust. The flow meter is shown at the top of the cabinet on the right.

about 2½ by 3 by 1 inch, and fitted with an air outlet valve. They are also supplied with helmets made of cloth-covered cardboard, provided in front with a 3 by 4½ inch window of 40-mesh wire gauze through which the operator may see, and provided also with an inlet tube on top for fresh-air supply. The helmet is fitted with a string by means of which the apron or lower portion may be drawn tightly around the neck, thus making an air-tight covering with the exception of the wire gauze-covered portion in front.

In using these protective devices the operator as a rule first places a handkerchief over his nose and mouth, tying it in a knot at the back of the head, then places the respirator in position, and finally puts on the helmet. The workers do not draw the string in the helmet taut, but as a rule allow the apron portion of the helmet to come to the shoulders. Figures 2 and 3 show the respirator and helmet as in ordinary use. The workmen do not make use of the air inlet at the top of the helmet, intended to be connected with a fresh-air supply line, for the reason that the fresh-air supply as drawn from the general supply air compressor is grossly contaminated with oil, which produces a very disagreeable odor when it is blown into the helmet in large quantities. Furthermore, it is difficult by means of the valves as at present installed to control the quantity of air supplied to the helmet; and, lastly, the fresh-air line enters the cabinet at one side, so that the length of unsupported hose necessary when working in the center of the chamber creates an uncomfortable drag on the worker's head.

Methods of study used in the present investigation.—Our immediate object was to determine the efficacy of the respirator and helmet used in the plant under observation, and if it was found, as was to be expected, inadequate, to determine the modifications in construction or operation necessary to secure a satisfactory degree of protection.

For collecting the dust samples we used the Palmer water-spray apparatus which we have found so satisfactory in our previous investigations. (Public Health Reports, Mar. 7, 1919, pp. 427-449.) The sampler was set up on a table in the sand-blast cabinet at about the height of the worker's head, while work was in progress as usual. The apparatus was protected against the direct blast of the sand by a covering of heavy wrapping paper. To the air inlet was attached a sampling tube 1 inch in diameter and 17 inches long, terminating in a funnel-shaped opening 3 inches in diameter. With the funnel open we obtained samples of the normal air of the cabinet (Fig. 4) and with the respirator held in position over the end of the funnel by means of rubber bands we determined the filtering effect of this device (Fig. 5). In testing the efficacy of the helmet the funnel, with or without the respirator, could be placed inside the helmet, which was supported on a specially constructed wire frame (Fig. 6).

In our later studies air was supplied to the inside of the helmet through the opening at the top designed for such a fresh-air supply. We used the air supplied to the cabinet for this purpose, passing it through a piece of 1-inch glass tubing with a constriction at its center and provided with a U tube, one branch of which joined the main horizontal tube on each side of the constriction. The effect of this constriction was increased by inserting orifices made up of short pieces of glass tubing in the constricted section and the flow of air was measured by the difference in level between the liquid in the two arms of the U tube. This type of flow meter was made use of in the investigations of the Chemical Warfare Service of the Army.[1] It was carefully calibrated in the laboratory against a gas meter of known accuracy, care being exercised not to use such volumes of air as would bring the air flow into the turbulent range and hence make the calibration inaccurate.

The methods of weighing and counting the dust particles collected were the usual ones recommended in the final report of the Committee on Standard Methods for the Examination of Air, American can Public Health Association (American Journal of Public Health, Vol. VII, No. 1), and need not be described in detail here. Each sample of dust was obtained by aspirating 40 cubic feet of air through our apparatus at a rate of 2 cubic feet per minute.

Results of the Present Study.

Normal dust content of the air of the sand-blast cabinet.—Ten different dust samples of the normal air in the cabinet during the process of sandblasting were collected on eight different occasions, and the results are presented in Table I. In this and subsequent tables the number of particles of dust per cubic foot of air is divided into two groups, those one-half standard unit in size and over being called "1 standard unit particles," while all those below one-half standard unit down to the limit of visibility under a magnification of 84 diameters are called "one-fourth standard unit particles." A standard unit is equal to an area 0.02 millimeters square, so that the "one-fourth standard unit particles" class includes all those particles having dimensions less than 10 by 20 microns.

The results presented in Table I show on the whole a considerable degree of uniformity, considering the variations in dust content one might expect in a process of this kind. The one-fourth standard unit particles (which are the ones of chief sanitary significance) varied between 15 and 82 million per cubic foot of air, and averaged 60,880,000. The weights varied between 12 and 119 milligrams per cubic foot of air, and averaged 55.29 milligrams.

[1] A. F. Benton, Gas Flow Meters for Small Rates of Flow: Jour. Ind. and Eng. Chem. *11*, 623-9 (1919).

TABLE I.—*Dust content of air in sand-blasting cabinet.*

Sample No.	Number of dust particles per cubic foot of air.		Weight of total dust mgs. per cubic foot of air.
	1 standard unit.	¼ standard unit.	
7021	4,280,000	68,600,000	87.30
7091	2,370,000	73,590,000	119.80
7092	1,500,000	67,500,000	65.00
7093	1,560,000	76,000,000	50.60
7253	1,025,000	29,200,000	12.43
8064	4,000,000	82,000,000	27.20
8265	2,266,000	37,000,000	18.53
8284	467,000	15,000,000	37.95
9034	4,000,000	80,000,000	53.70
9054	10,900,000	80,000,000	80.40
Average	3,236,000	60,880,000	55.29

These figures, so far as we are aware, represent the first quantitative determinations of the actual extent of the dust hazard in sand blasting. As compared with results for other industries (summarized in a paper published in Public Health Reports for May 30, 1919, pp. 1171-1187) they show weights far in excess of those previously reported. In earlier studies, weights have generally been reported in milligrams per *hundred* cubic feet of air, and the highest figures with which we are familiar are 218 milligrams per 100 cubic feet found by Miller and Smyth in a cement mill, and 780 milligrams per 100 cubic feet found by Winslow, Greenburg, and Greenberg in an abrasive factory. Our sand-blast figures (over 5,500 milligrams per *hundred* cubic feet of air) are of almost another order of magnitude.

The enormous weight of dust present in the air of the sand blasting cabinet is, however, chiefly due to the large particles of sand present (which appear in our 1 standard unit count column). These large particles are of no particular significance in connection with respiratory disease since, as the South African investigators have shown, it is the particles below 10 microns in diameter which actually enter the lungs and produce fibrotic changes. The ¼ standard unit particles in the air of the sand-blast cabinet (60,880,000 per cubic foot) may be compared with 6,790,000 found by Miller and Smyth in the cement mill, and with 31,010,000 and 159,780,000, found by Winslow, Greenburg, and Greenberg in two abrasive factories. The actual health hazard involved in sand blasting, with no protection at all, would be about equivalent to that actually existing in the abrasive factories in question. The discomfort due to the larger particles present would, however, prevent any such complete exposure in practice.

Efficiency of respirator as a means of protection against the dust in the sand-blasting cabinet.—Our next step was to determine the efficiency of the respirator (described above on p. 522) supplied to the workers in the plant. The sponge in the respirator was thoroughly

wetted and then squeezed free of excess water before using. Eight tests were made of this device on three different occasions and the results are presented in Table II. The second half of Table II includes three examinations of the normal air of the cabinet (already cited in Table I), which were made as direct controls at the time that the respirator studies were conducted.

TABLE II.—*Dust content of air of sand-blasting cabinet.*

Sample number.	After aspiration through respirator.			With no protection.			
	Number of particles per cubic foot of air.		Weight of total dust, milligrams per cubic foot of air.	Sample number.	Number of particles per cubic foot of air.		Weight of total dust, milligrams per cubic foot of air.
	1 standard unit.	¼ standard unit.			1 standard unit.	¼ standard unit.	
7251	25,000	1,370,000	0.19	7253	1,025,000	29,200,000	12.43
7252	105,000	4,355,000	2.86				
8061	20,000	6,055,000	.45	8064	4,000,000	82,000,000	27.20
8062	24,000	5,730,000	.37				
8063		7,070,000	.90				
8261	120,000	5,840,000	1.64	8265	2,266,000	37,000,000	18.53
8262	67,000	2,870,000	1.71				
8264	200,000	3,100,000	1.93				
Average	70,000	4,549,000	1.26		2,430,000	49,400,000	19.39

It should be noted that the experimental results obtained with the respirator were somewhat more favorable than those which could be expected in practice, since the respirator fitted our sampling funnel much more closely than it would be likely to fit the face of a worker. They should be comparable in this respect with the results obtained by the South African Commission, but not with those reported by Schablowski.

We can best judge of the efficiency of protective devices used in a given process by the dust content of the air actually respired by the worker. From this standpoint it will be evident that while the respirator alone does produce a remarkable reduction in dust content (from an average of 49,400,000 ¼ standard unit particles to 4,549,000 such particles per cubic foot), yet the final result (varying from 1 to 7 million and averaging 4,549,000 ¼ standard unit particles) can not be considered at all adequate for the protection of the worker. The dust content of the air after passing through the tightly attached respirator was still nearly as high as the values obtained in the worst industrial environments previously studied, with the exception of those reported for abrasive factories.

The respirator studied by us removed about 92 per cent of the dust present by count and 97 per cent by weight. These results on a count basis compare with the best of those obtained by Schablowski and the results by weight are much better than those reported by

the South African Commission. The conditions are not comparable, however, in view of the different dusts with which the respirators had to deal in the two cases. The dust content of the air of the South African mines, even after blasting, was only from 1.2 to 1.8 milligrams per cubic foot as against 12.4 to 27.2 milligrams in our case. The larger the amount of dust present in the air (and the larger the individual particles), the greater will be the per cent purification. Weight determinations are in any case of little value since the larger particles, of least sanitary significance, will be the ones most readily removed by any filtering device. The South African study includes only weights, but it is the count of small (¼ standard unit) particles which is really significant, and it is on this point that we shall lay stress in discussing our results.

Efficiency of respirator and helmet in combination.—Our second problem was to determine the efficiency of the respirator combined with the helmet as used in actual practice at the plant. Samples for this purpose were taken, as described previously, by placing the sampling tube and funnel, with the respirator attached, inside the helmet supported on a table in the sand-blast cabinet. Nine tests of this sort were made on three different occasions, and the results are presented in Table III with three control tests of normal air taken at the same time.

TABLE III.—*Dust content of air of sand-blasting cabinet.*

After aspiration through respirator and helmet.				With no protection.			
Sample No.	Number of particles per cubic foot of air.		Weight of total dust, mgs. per cubic foot of air.	Sample No.	Number of particles per cubic foot of air.		Weight of total dust, mgs. per cubic foot of air.
	One standard unit.	One-fourth standard unit.			One standard unit.	One-fourth standard unit.	
8281	15,000	615,000	0.10	8284	467,000	15,000,000	37.95
8282	11,000	369,000	.15				
8283	12,000	504,000	.11				
9031	22,000	2,740,000	.04	9034	4,000,000	80,000,000	53.70
9032	32,000	3,260,000	.31				
9033	17,000	1,950,000	.09				
9051	107,000	4,280,000	1.46	9054	10,900,000	80,000,000	80.40
9052	65,000	3,000,000	.50				
9053	43,000	4,480,000	.92				
Average	36,000	2,355,000	.41		5,122,000	58,330,000	57.35

The dust content of the air of the cabinet at the time these tests were made varied between 15 and 80 million and averaged 58,330,000 one-fourth standard unit particles per cubic foot, while the air after passing through the helmet and respirator contained between 369,000 and 4,480,000 such particles and averaged 2,355,000. The results are distinctly better than those obtained with the respirator alone. The counts obtained are, however, far in excess of the limits which can be considered permissible for safety.

In connection with some of our later work we made 10 additional examinations of cabinet air after passing through the helmet and respirator. These results are presented in the second half of Table IV and check the results in Table III in a very satisfactory manner, the average number of one-fourth standard unit particles in this case being 1,770,000.

It appears evident from these observations that the helmet and respirator provided in the plant studied, when used without positive air pressure, do not adequately protect the worker against the existing dust hazard.

Efficiency of respirator and helmet provided with positive air pressure.—In view of the failure of the helmet and respirator to produce an adequate removal of dust, as operated above, we next proceeded to determine the efficiency of the apparatus when operated (as it was designed to be operated) with a constant air supply to the interior of the helmet.

The sampling tube, with respirator in place, was set inside the helmet and to the ¼-inch inlet at the top of the helmet was attached an air line delivering air through a flow meter, in the form of a constricted tube (see Fig. 7), described on page 528. Since the Palmer apparatus, during the period of sampling, was removing air from the interior of the helmet at a rate of 2 cubic feet per minute, it was necessary to supply air in excess of this amount in order to preserve a condition of positive pressure within the helmet. We therefore adjusted the valve on the air line so that the amount of air actually delivered to the helmet was in the neighborhood of 3 cubic feet per minute (ranging from 2.3 to 3.7 cubic feet per minute). The results of 19 such observations on 5 different occasions are shown in Table IV, with 10 control examinations of air collected with the helmet and respirator in place but without positive air supply.

It will be noted by reference to Table IV that air collected in this way (after passing through helmet and respirator) with no positive air supply, contained from 545,000 to 3,899,000 one-fourth standard unit particles, and averaged 1,770,000 such particles per cubic foot. On the other hand, the dust content of air sampled in the same manner but with an average air supply of 2.9 cubic feet per minute to the interior of the helmet, ranged from 18,000 to 329,000 one-fourth standard unit particles and averaged only 151,000 such particles per cubic foot.

TABLE IV.—*Dust content of air of sand-blasting cabinet after aspiration through helmet and respirator.*

With positive air pressure.					Without positive air pressure.			
Sample number.	Fresh air supply, cubic feet per minute.	Number of dust particles per cubic foot of air.		Weight of total dust, mgs. per cubic foot of air.	Sample number.	Number of dust particles per cubic foot of air.		Weight of total dust, mgs. per cubic foot of air.
		1 standard unit.	¼ standard unit.			1 standard unit.	¼ standard unit.	
1021	2.9	1,000	328,000	0.03	1023	8,000	974,000	0.03
1022	3.0	1,000	73,000	.01	1024	6,000	1,224,000	.06
1025	2.8	.....	131,000	.02	.....	.....	.....	.....
1071	2.7	1,000	25,000	.03	1072	5,000	545,000	.06
1073	2.6	6,000	18,000	.02	1075	9,000	945,000	.16
1074	2.6	2,000	74,000	.02	.....	.....	.....	.....
1091	3.5	.....	113,000	.03	1092	6,000	3,899,000	.07
1093	3.7	.....	258,000	.06	1095	6,000	2,144,000	.10
1094	3.5	2,000	102,000	.03	.....	.....	.....	.....
1096	3.4	1,000	207,000	.03	.....	.....	.....	.....
10151	2.6	1,000	163,000	.09	10152	9,000	1,648,000	.07
10153	2.7	2,000	228,000	.02	10155	3,000	976,000	.07
10154	2.7	2,000	141,000	.01	.....	.....	.....	.....
10156	2.7	1,000	322,000	.01	.....	.....	.....	.....
10171	2.3	2,000	93,000	.02	10172	10,000	1,613,000	.06
10173	2.6	2,000	123,000	.01	10176	29,000	3,731,000	.14
10174	2.8	1,000	63,000	.01	.....	.....	.....	.....
10175	2.3	3,000	71,000	.02	.....	.....	.....	.....
10177	3.0	7,000	329,000	.05	.....	.....	.....	.....
Average....	2.9	2,000	151,000	.03	.....	9,000	1,770,000	.08

These results are remarkably satisfactory. In a previous study (Public Health Reports, Mar. 7, 1919, p. 440) we have reported results obtained in a polishing shop equipped with an excellent exhaust system. In the air of this shop we found counts of one-fourth standard unit particles ranging from 22,200 to 854,000 and, averaging about 200,000 per cubic foot, and we suggested as a standard for such shops that the number of such particles should be kept generally below 300,000 per cubic foot and should not average over 200,000. It is most encouraging to find that even in a sand blast cabinet this degree of purity can be attained by the use of a respirator and helmet with positive air pressure.

From the standpoint of the weight of dust the results are equally satisfactory. We recommended as a standard for polishing shops that the weight of dust should generally be kept below 0.06 milligram per cubic foot, and should not average over 0.03 milligram; while the Phthisis Prevention Commission in South Africa and Higgins and Lanza in their study of the Joplin mines suggested limiting values of 0.14 milligram and 0.28 milligram, respectively, for mine air. The air of the sand blast cabinet after passing through the helmet provided with positive air pressure, and thence through the respirator, contained from 0.01 to 0.09 milligram per cubic foot, and averaged only 0.03 milligram per cubic foot of air.

Efficiency of helmet provided with positive air pressure but without the use of the respirator.—The results reported above were so encouraging, and indicated so clearly the value of positive air pressure in

excluding dust from the helmet, that it seemed of interest to determine the efficiency of the helmet alone, provided with positive air pressure but without the use of the respirator. We therefore set the apparatus up as before but without the respirator and, on two different occasions, collected the dust from 10 samples of air in this way, with three control samples in which the respirator was present. The air supply to the interior of the helmet was about the same as before, ranging from 2.4 cubic feet to 3.1 cubic feet and averaging 2.7 cubic feet per minute. The results of this study are presented in Table V.

TABLE V.—*Dust content of air of sand-blast cabinet after aspiration through helmet provided with positive air pressure.*

No respirator in use.					Respirator in use.				
Sample number.	Fresh air, cubic feet per minute.	Number of dust particles per cubic foot of air.		Weight of total dust, mgs. per cubic foot.	Sample number	Fresh air, cubic feet per minute.	Number of dust particles per cubic foot of air.		Weight of total dust, mgs. per cubic foot of air.
		1 standard unit.	¼ standard unit.				1 standard unit.	¼ standard unit.	
10201	2.4	5,000	212,000	0.04	10202	2.4	5,000	200,000	0.01
10203	2.6	5,000	185,000	.08	10206	3.0	5,000	190,000	.04
10204	3.0	2,000	210,000	.01					
10205	3.0	3,000	331,000	.02					
10207	3.1	3,000	321,000	.03					
10291	2.5	3,000	355,000	.05	10292	2.6		184,000	.01
10293	2.4	8,000	238,000	.04					
10294	2.4	8,000	1,529,000	.07					
10295	2.6	2,000	181,000	.04					
10296	2.6	4,000	118,000	.03					
Average	2.7	4,000	368,000	0.04		2.7	3,000	191,000	0.02

The results obtained with air pressure in the helmet supplemented by the use of the respirator (presented in the right-hand half of Table V) correspond closely with those previously discussed (left-hand half of Table IV). The results obtained with the helmet provided with air pressure but with no respirator (left half of Table V) were not quite so good as those obtained with the use of the respirator, but the difference is comparatively slight. The one-fourth standard unit counts without the respirator ranged from 118,000 to 355,000, except for one count of 1,529,000, and the average, including this aberrant count, was 368,000 one-fourth standard unit particles per cubic foot. If the one exceptional count of sample 10294 were excluded the average for the group would be only 239,000 one-fourth standard unit particles per cubic foot. The weights obtained in this way without the respirator ranged from 0.01 to 0.08 milligrams per cubic foot, and averaged 0.04 milligrams per cubic foot.

The values obtained are very close to those we have recommended as ideal for polishing shops and are far below the standards set by the South African Commission and by Higgins and Lanza for mine air.

These results appear to us to be of considerable general interest as indicating the possibility of excluding dust from the respiratory tract of the worker by maintaining a positive air pressure in a comparatively impermeable inclosure about the head rather than by attempting to filter the incoming air through a close-grain respirator. In processes where the workman must move about over a wide area such a method of protection might not be feasible; but in the sandblasting cabinet it is altogether practical to use positive air pressure. It seems essential to use such air pressure whether the respirator is worn or not; and while we should not feel justified in recommending the abandonment of the respirator (in view of the better results obtained by its use in combination with the air-pressure helmet) it is satisfactory to know that if workers decline to wear the uncomfortable "muzzle" they will still be insured a very high degree of protection by the use of the air-pressure helmet alone. It should be remembered, too, that results obtained in our studies as to the efficiency of the helmet are entirely typical of those to be expected in practice, while our results on the respirator are unduly favorable because of the respirator fitted our sampling funnel more tightly than it would fit the face of the operator in practice.

Summary and Practical Conclusions in Regard to the Protection of Sand-Blast Operators.

The general average results of all our determinations are presented for comparison in Table VI.

TABLE VI.—*General summary of average results.*

	Number of samples.	Average dust content.		For complete data see—
		One-fourth standard unit particles per cubic foot of air.	Total dust, mgs., per cubic foot of air.	
Air of cabinet	10	60,880,000	55.29	Table I.
Air passed through respirator alone	8	4,549,000	1.26	Table II.
Air passed through helmet and respirator	19	2,047,000	.24	Tables III, IV.
Air passed through helmet with positive air pressure	10	368,000	.04	Table V.
Air passed through helmet and respirator with positive air pressure.	22	156,000	.03	Tables IV, V.

It is evident that the normal air of the sand-blast cabinet studied contains an enormous number of small dust particles—a number larger than has been previously reported from any source except the air of an abrasive factory. The weight of dust is far in excess of any result previously recorded. Since the dust in this case is chiefly composed of particles of crystalline silica, a dust known to cause distinctive changes in the lung tissue which predispose to pulmonary

tuberculosis, it is evident that the workers in the sand-blasting industry are exposed to a serious hazard from which they should be protected by the most effective possible means.

The figures presented in the second and third lines of Table VI indicate that while the respirator alone, and the respirator combined with the helmet, effect a substantial removal of the finer dust particles, the air which passes through the protective apparatus in the absence of positive air pressure within the helmet is still laden with an amount of fine dust far in excess of the limits necessary for the protection of the worker. The dust content of the air which passes the helmet and respirator (without positive air pressure), amounting to 2,047,000 one-fourth standard unit particles per cubic foot, is about what would be found in a polishing shop or tumbling room of very low grade and equipped with what would be recognized as a wholly inadequate exhaust system.

The introduction of positive air pressure within the helmet effected a radical change in conditions. Even without the respirator the helmet alone, when provided with a supply of 2 to 3 cubic feet of air per minute, reduced the dust content of the air from many millions to a few hundred thousands of particles (average 368,000 one-fourth standard unit particles per cubic foot). This is a striking demonstration of the results which may be obtained by the use of a comparatively impermeable head covering provided with sufficient internal air pressure to produce an outward air flow, a procedure which in many industrial processes may supplement or replace protection devices based on the filtration principle.

The helmet provided with positive air pressure does not, however, without the respirator, produce an absolutely satisfactory degree of protection. Out of 10 samples collected in this way, 4 showed counts of over 300,000 one-fourth standard unit particles per cubic foot, and one of these had a count of over 1,500,000. With the helmet provided with positive air pressure plus the respirator, on the other hand, results of the most satisfactory nature were obtained. Out of 22 samples of air which had passed through these combined protective devices, only three showed counts of over 300,000 one-fourth standard unit particles per cubic foot, while not one exceeded 330,000 such particles. The average for the whole group was 156,000 one-fourth standard unit particles per cubic foot, a result which must be considered a really remarkable one. It is probable, however, that the 156,000 dust particles passing the helmet and respirator include a larger proportion of hard, siliceous, and, therefore, dangerous particles than would be found in a similar dust count in an ordinary room. Our studies indicate that the dust in the air of the sand-blast cabinet is over 99 per cent inorganic matter, while the dust collected from air which had passed through the helmet with positive air pressure gave an average for 22 samples of only 80 per cent inorganic material.

This proportion is higher than that characteristic of normal air and suggests that minute traces of siliceous dust are still present. The amount is so small, however, that the air actually breathed by the worker is of a character comparable to that found in a grinding shop equipped with the best known exhaust devices, and from a practical standpoint the results must be considered entirely satisfactory.

We would therefore recommend that where the nature of the operation is such as to require the presence of workers within the sand-blasting cabinets of the types studied, all such workers should be protected by helmets provided with positive air pressure and with respirators of the general type described above; and under such conditions it may be assumed that substantially complete protection will be secured.

In regard to the amount of air to be supplied to the helmet in practice, it should be noted that we used, on the average, somewhat less than 3 cubic feet per minute, while the Palmer apparatus was constantly removing 2 cubic feet per minute. In other words, the pressure at the front window of the helmet was produced by an excess of air supply over air exhaust through the Palmer apparatus of less than 1 cubic foot per minute. In practice it would only be necessary to maintain a corresponding excess of air supply over the amount withdrawn from the helmet during inspiration. Assuming that for the type of physical effort required in sand blasting each inspiration removes 90 cubic inches of air in a period of 1.5 seconds the draft upon the air in the helmet, during the inspiration period, would be at the rate of approximately 2 cubic feet per minute. A gross air supply to the helmet of 2.5 to 3 cubic feet per minute should therefore prove ample to maintain satisfactory conditions in practice.

The solution of the odor problem (which, as noted above, has proved troublesome in the plant where our studies were made) has proved comparatively simple. We found that only when large quantities of air were allowed to enter the helmet was the odor of oil noticeable. With the air supply to the helmet reduced to 3 cubic feet per minute, we were ourselves unable to detect any odor in the air supplied. If trouble of this kind should be experienced, there are on the market simple and inexpensive air filters which may be placed in the air line to remove any impurities present. We experimented with one such filtering device, made by the La France Fire Engine Co., of Elmira. N. Y., and found that the helmet supplied with air passed through this filter could be worn for over half an hour without the slightest inconvenience due to odor. On actual test an amount of oil which would equal two or three drops collected in the filter during such a period. In order to avoid possible complaints the inclusion of such a filter in the air line would seem to be desirable. The use of a small impeller type blower which does not use lubricating oil internally for the fresh-air supply would of course solve this difficulty completely.

The introduction of 2½ to 3 cubic feet of air per minute through a ¼-inch hole at the top of the helmet would produce an uncomfortable draft on the top of the uncovered head, particularly in cold weather. The operators in using the apparatus as recommended by us wore their caps and in testing it ourselves we placed a folded handkerchief on the top of the head. It would seem desirable, however, to construct the helmet with a deflector plate under the air inlet so as to distribute the air more evenly and avoid the necessity for other protection. It would also be well to provide an air chamber equipped with a small heating coil to temper the incoming air in cold weather.

Finally, there are a few minor points in construction which will contribute materially to the success of such protective devices as those described. The tubing connecting the air line to the helmet should be of light weight so as to avoid a drag on the head of the operator, and it should be connected to the supply pipe overhead and near the center of the chamber so that its length may be as short as possible. We would recommend that about 2 feet of the tubing should be permanently connected to the helmet and equipped with a connecting joint (which might be merely a 2-inch section of brass tubing) so that the worker could enter the chamber fully equipped and make his air-line connection without removing his helmet. It would seem advisable to provide no air valve within reach of the worker, but to keep the air control under the supervision of the foreman. The air valve should be set to deliver 2.5 to 3.0 cubic feet of air per minute, and this air supply should be continuously maintained during working hours. The additional cost required to maintain a continuous air supply would be a minor item compared with the danger arising should individual workers fail to turn on the air supply.

With the type of installation described above we believe that the worker in a sand-blasting cabinet will be effectively safeguarded against the dust hazard incident to his employment.

ANTIMALARIAL WORK IN DALLAS, TEX.

By LESLIE C. FRANK, Director of Public Health, and FRANK R. SHAW, City Sanitarian.

Malaria-control activities in the city of Dallas, Tex., were started May 9, 1916, under the general supervision of Mr. Charles Saville, Director of Public Health, and under the immediate direction of Mr. H. W. Van Hovenberg, Chief of the Division of Sanitation, and have been continued throughout each season to the present year.

The first year's work consisted of the initial brushing, channeling, and training of creeks and natural water courses, the draining of pools of water, and oil operations for the prevention of mosquito breeding where it was not otherwise prevented. An educational campaign was conducted so as to mold public opinion and secure the best possible cooperation.

The work during the season of 1916 covered an area of approximately 6 square miles, and included the brushing, ditching, and oiling of 30 miles of stream. The entire operation, including all costs, amounted to $2,803, or $93.40 per mile. Fourteen hundred gallons of oil, at a cost of 8 cents per gallon, were used during the 6 months. The labor cost on the different divisions of the work at a rate of $2 per day was as follows:

	Cost per mile.
Ditching	$28.50
Clearing banks	11.10
Oiling	5.80

The actual cost per capita for 1916, on the basis of a population of 140,000, was 2 cents.

For the years 1917 and 1918 the cost data are incomplete and unsatisfactory.

The total area under control during the season of 1919 was 10.5 square miles, and included the maintenance and oiling of 45 miles of creeks and ditches. Four thousand five hundred gallons of oil, at a cost of 14½ cents per gallon, were used during the 8 months. The labor cost, at the rate of $3 per day, was as follows:

	Cost per mile.
Channeling and ditching	$35
Oiling	4

The cost of the entire operation for 1919 was $4,278.72; and on the basis of a population of 168,000, the per capita cost for 1919 was 2.54 cents.

It is in most cases very difficult to measure the result of anti-malarial work, as the morbidity reports and mortality reports on malaria have never been very dependable, this being particularly true of morbidity reporting. However, the following figures are significant:

During the twelve-month period ended August 31, 1916, 27 deaths from malaria were reported in Dallas. As stated in this report, malaria-control work was begun on May 9, 1916. For the succeeding twelve-month periods since 1916 the mortality figures are, 1917, 9 deaths; 1918, 11 deaths; 1919, 6 deaths.

These reductions in malaria deaths have taken place despite the increase in population of the city from 140,000 in 1916 to 170,000 in 1919. Averaging the malaria deaths for the past 3 years, therefore, it is apparent that the death rate in Dallas has been reduced from 19.3 per 100,000 in 1916 to an average of 5.4 per 100,000 since 1916. This is a reduction of 72 per cent.

The above figures give ample evidence of the value of anti-malarial work to any community.

DIVISION OF VENEREAL DISEASES JANUARY, 1920.

Table I shows that during the month of January there were 10,410 new cases admitted to 259 of the venereal disease clinics operating under the joint control of the United States Public Health Service and the State boards of health. There were 4,539 cases of gonorrhea, 5,173 cases of syphilis, 459 of chancroid, and 239 of other venereal diseases.

Table II shows the number of cases of venereal diseases reported by the State boards of health for the month of January. There were 11,485 cases of gonorrhea, 10,887 of syphilis, and 881 of chancroid, making a total of 23,253 cases.

TABLE I.—*Number of cases of venereal diseases admitted to 259 of the clinics operating under the joint control of the United States Public Health Service and the State boards of health during the month of January, 1920.*

State.	Total cases.	Gonorrhea.	Syphilis.	Chancroid.	Others.
Alabama [1]					
Arizona	11		11		
Arkansas	197	88	94	15	
California	474	199	265	8	2
Colorado	118	45	55	9	9
Connecticut [1]					
Delaware [1]					
District of Columbia [1]					
Florida	327	79	236	12	
Georgia	391	238	131	22	
Idaho [2]					
Illinois	523	260	243	12	8
Indiana	707	400	287	17	3
Iowa [1]					
Kansas	192	90	95	6	1
Kentucky	313	153	147	9	4
Louisiana	274	116	121	37	
Maine	29	8	20	1	
Maryland	178	98	56	9	15
Massachusetts	659	269	359	4	27
Michigan	104	49	53		2
Minnesota	129	66	43	2	18
Mississippi	68	17	39	5	7
Missouri	506	305	142	31	28
Montana [1]					
Nebraska	89	30	51	8	
Nevada					
New Hampshire	24	11	13		
New Jersey	231	123	100	5	3
New Mexico [1]					
New York	2,414	846	1,507	61	
North Carolina	268	121	118	19	10
North Dakota	19	12	7		
Ohio					
Oklahoma [1]					
Oregon	23	12	11		
Pennsylvania					
Rhode Island	85	39	42	2	2
South Carolina	798	389	346	52	11
South Dakota	20	14	6		
Tennessee [1]					
Texas	617	254	231	56	76
Utah [1]					
Vermont	7	3	4		
Virginia	523	176	282	52	13
Washington [1]					
West Virginia	61	16	42	3	
Wisconsin	26	10	15	1	
Wyoming	5	3	1	1	
Totals	10,410	4,539	5,173	459	239

[1] Report not received. [2] No clinics.

TABLE II.—*Summary of cases of venereal diseases reported by the State boards of health for the month of January, 1920.*

State.	Total cases.	Gonorrhea.	Syphilis.	Chancroid.
Alabama [1]				
Arizona	50	30	20	
Arkansas	513	285	194	34
California	1,102	554	548	
Colorado	543	256	267	20
Connecticut [1]				
Delaware [1]				
District of Columbia [1]				
Florida	680	225	429	26
Georgia	931	454	411	66
Idaho	58	31	27	
Illinois	2,713	1,413	1,206	94
Indiana	1,015	565	422	28
Iowa [1]				
Kansas	290	171	117	2
Kentucky	419	222	184	13
Louisiana	591	374	155	62
Maine	150	108	34	8
Maryland	246	139	81	26
Massachusetts	932	600	332	
Michigan	1,653	841	781	31
Minnesota	638	344	276	18
Mississippi	196	104	75	17
Missouri				
Montana [1]				
Nebraska	524	313	185	26
Nevada				
New Hampshire	117	59	55	3
New Jersey	702	267	406	29
New Mexico [1]				
New York	2,979	643	2,336	
North Carolina	667	433	183	51
North Dakota	73	57	16	
Ohio	1,174	574	547	53
Oklahoma [1]				
Oregon	101	74	26	1
Pennsylvania				
Rhode Island	99	37	62	
South Carolina	978	478	435	65
South Dakota	230	175	50	5
Tennessee [1]				
Texas	1,216	677	432	107
Utah [1]				
Vermont	81	52	29	
Virginia	675	258	357	60
Washington [1]				
West Virginia	543	404	118	21
Wisconsin	332	235	85	12
Wyoming	42	33	6	3
Totals	23,253	11,485	10,887	881

[1] Report not received.

Positions Open in Department of Public Health, Philadelphia, Pa.

The Civil Service Commission of Philadelphia announces the following examinations to be given to fill positions in the Department of Public Health. For detailed information application should be made to the commission, Room 875, City Hall, Philadelphia, Pa.

		Salary.
Mar. 9.	Second assistant chemist	$1,500
Mar. 9.	Assistant chemist [1]	2,000
Mar. 9.	Chemist [1]	2,500
Mar. 10.	Assistant bacteriologist [1]	1,500
Mar. 10.	Bacteriologist [1]	2,000
Mar. 8.	Serologist [1]	1,200
Mar. 8.	Anatomist	600
Mar. 8.	Electrocardiographic worker [1]	1,000
Mar. 8.	Director and clinical pathologist [1]	3,500
Mar. 9.	Museum curator and photographer	1,800

[1] Residence waived.

		Salary.
Mar. 8.	Chief resident physician [1]	[2] $4,000
Mar. 11.	Assistant clinical pathologist	2,000
Mar. 11.	Histologist	1,200
Mar. 11.	Second neuropathologist	1,200
Mar. 11.	First neuropathologist [1]	1,500

[1] Residence waived. [2] House and found.

DEATHS DURING WEEK ENDED FEB. 21, 1920.

[From the "Weekly Health Index," Feb. 24, 1920, issued by the Bureau of the Census, Department of Commerce.]

Deaths from all causes in certain large cities of the United States during the week ended Feb. 21, 1920, infant mortality (per cent), annual death rates, and comparison with corresponding week of preceding years.

City.	Population July 1, 1918, estimated.	Week ended Feb. 21, 1920. Total deaths.	Week ended Feb. 21, 1920. Death rate.[1]	Average annual death rate per 1,000.[2]	Per cent of deaths under 1 year. Week ended Feb. 21, 1920.	Per cent of deaths under 1 year. Previous year or years.[2]
Albany, N. Y.	112,565	57	26.4	C 18.5	1.8	C 12.5
Atlanta, Ga.	201,732	164	42.4	C 17.3	6.7	C 9.0
Baltimore, Md.	[3] 669,981	481	37.4	A 19.8	17.3	A 15.1
Birmingham, Ala.	197,670	119	31.4	A 18.4	14.3	A 13.1
Boston, Mass.	785,245	483	32.1	A 18.8	16.8	A 14.6
Buffalo, N. Y.	473,229	287	31.6	C 15.0	15.7	C 18.4
Cambridge, Mass.	111,432	54	25.3	A 15.8	16.7	A 12.7
Chicago, Ill.	2,596,681	882	17.7	A 17.2	12.5	A 18.9
Cincinnati, Ohio.	[4] 401,158	208	27.0	C 18.1	9.6	C 8.3
Cleveland, Ohio.	810,306	375	24.1	C 10.7	10.9	C 18.7
Columbus, Ohio.	225,296	145	33.6	C 20.1	12.4	C 17.2
Dayton, Ohio.	130,655	58	23.1	C 14.4	13.8	C 11.1
Denver, Colo.	.....	138	.....	.....	6.5	.....
Fall River, Mass.	128,392	54	21.9	C 13.0	18.5	C 15.6
Grand Rapids, Mich.	135,450	83	32.0	C 11.9	14.5	C 16.1
Indianapolis, Ind.	290,389	167	30.0	C 13.9	10.2	C 7.8
Jersey City, N. J.	318,770	165	27.0	C 14.1	13.3	C 23.3
Kansas City, Mo.	313,785	175	29.1	C 14.5	18.9	C 6.9
Los Angeles, Calif.	568,495	242	22.2	A 13.8	9.9	A 9.6
Louisville, Ky.	242,707	125	26.9	C 21.3	15.2	C 15.2
Lowell, Mass.	109,081	72	34.4	A 21.5	13.9	A 22.4
Memphis, Tenn.	.....	101	.....	C 17.5	2.0	C 3.8
Milwaukee, Wis.	453,481	147	16.9	A 14.3	19.7	A 23.2
Minneapolis, Minn.	383,442	131	17.8	C 10.1	12.2	C 12.2
Nashville, Tenn.	119,215	86	37.6	C 17.9	11.6	C 12.2
Newark, N. J.	428,684	229	27.9	C 16.5	15.3	C 15.4
New Haven, Conn.	154,865	108	36.4	C 15.5	12.0	C 30.4
New Orleans, La.	382,273	237	32.3	A 23.7	10.1	A 10.8
New York, N. Y.	5,215,879	2,480	24.8	C 15.8	16.5	C 16.2
Omaha, Nebr.	180,264	61	17.6	C 10.1	14.8	C 17.1
Philadelphia, Pa.	1,761,371	1,256	37.2	[5] 18.8	7.7	[5] 14.0
Pittsburgh, Pa.	593,303	443	38.9	C 16.8	9.7	C 22.0
Portland, Oreg.	.....	119	.....	.....	7.6	C 7.7
Providence, R. I.	263,613	198	39.2	C 15.2	13.1	C 14.3
Richmond, Va.	160,719	89	28.9	C 23.4	14.6	C 26.4
Rochester, N. Y.	264,856	87	17.1	C 15.2	12.6	C 15.6
St. Louis, Mo.	779,951	322	21.5	C 14.7	7.1	C 8.2
San Francisco, Calif.	478,530	264	28.8	C 15.6	6.8	C 8.4
Seattle, Wash.	.....	140	.....	.....	9.3	A 13.6
Spokane, Wash.	.....	54	.....	.....	7.4	C 10.3
Syracuse, N. Y.	161,404	70	22.6	C 16.5	11.4	C 11.8
Toledo, Ohio.	262,234	123	24.5	A 15.1	6.5	A 16.1
Washington, D. C.	[4] 437,414	187	22.3	A 19.4	9.1	A 13.6
Worcester, Mass.	173,650	102	30.6	C 15.3	8.8	C 19.6

[1] Annual rates per 1,000 estimated population.
[2] "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1917.
[3] Population estimated as of July 1, 1919.
[4] 1920 enumeration; subject to revision.
[5] Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegraph from industrial insurance companies for week ended Feb. 21, 1920.

Policies in force	42,796,457
Number of death claims	20,054
Death claims per 1,000 policies in force, annual rate	24.4

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 STATE SUMMARIES.

Telegraphic Reports for Week Ended Feb. 28, 1920.[1]

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

ALABAMA.

	Cases.
Chicken pox	25
Diphtheria	5
Influenza	3,603
Malaria	5
Measles	31
Pneumonia (all forms)	73
Scarlet fever	10
Smallpox	47
Tuberculosis (pulmonary)	13
Typhoid fever	3
Whooping cough	7

ARKANSAS.

Chicken pox	29
Diphtheria	21
Influenza	1,690
Malaria	55
Measles	22
Pneumonia	60
Pellagra	7
Scarlet fever	10
Smallpox	28
Trachoma	1
Tuberculosis	30
Typhoid fever	1
Whooping cough	41

CALIFORNIA.

Cerebrospinal meningitis:	
Colfax	1
San Francisco	1
Influenza	5,527
Lethargic encephalitis:	
Los Angeles	1
Oakland	1
Ontario	1
Poliomyelitis:	
Los Angeles County	1
Smallpox:	
Carona	7
Holtville	39
Los Angeles	10
Los Angeles County	19
San Francisco	9
Santa Barbara	28
Scattering	27
Typhoid fever	2

CONNECTICUT.

	Cases.
Cerebrospinal meningitis:	
New Haven	1
Bridgeport	1
Greenwich	1
Chicken pox	20
Diphtheria:	
Fairfield County—	
Bridgeport	12
Greenwich	15
Hartford County—Hartford	8
New Haven County—	
New Haven	10
Waterbury	8
Scattering	14
German measles	2
Lethargic encephalitis	1
Measles:	
Fairfield County—	
Bridgeport	9
Stamford	25
Trumbull	7
Hartford County—	
Enfield	10
Hartford	17
Plainville	19
Southington	8
New Haven County—	
Ansonia	7
Hamden	15
New Haven	36
New London County—New London	16
Scattering	33
Mumps	10
Pneumonia:	
Fairfield County—Shelton	26
New London County—New London	12
Scattering	57
Scarlet fever:	
Hartford County—Hartford	19
Litchfield County—	
Plymouth	7
Watertown	5
New Haven County—	
New Haven	5
Waterbury	30
Scattering	17

[1] Reports on p. 464 of Public Health Reports for Feb. 27, 1920, were for week ended Feb. 21, not Feb. 7.

CONNECTICUT—continued.

	Cases.
Tuberculosis	13
Typhoid fever	3
Whooping cough	31

DELAWARE.

Chicken pox	5
Diphtheria	4
Influenza:	
Cheswold	6
Dover	9
Middletown	11
Odessa	6
Scattering	4
Measles	116
Pneumonia	8
Scarlet fever	1
Tuberculosis	2
Typhoid fever	2
Whooping cough	2

FLORIDA.

Diphtheria	4
Dysentery	1
Influenza	1,026
Malaria	8
Pneumonia	44
Scarlet fever	2
Smallpox	6
Typhoid fever	7

GEORGIA.

Cerebrospinal meningitis	1
Chicken pox	29
Diphtheria	17
Dysentery (bacillary)	1
German measles	2
Influenza	8,210
Malaria	12
Measles	81
Mumps	37
Paratyphoid fever	1
Pneumonia	168
Poliomyelitis	1
Scarlet fever	16
Septic sore throat	3
Smallpox	65
Trachoma	1
Tuberculosis (pulmonary)	19
Typhoid fever	2
Whooping cough	32

ILLINOIS.

Cerebrospinal meningitis:	
Chicago	1
Evanston	1
Diphtheria:	
Chicago	148
Scattering	39
Influenza:	
Chicago	394
Scattering	2,668
Lethargic encephalitis:	
Belleville	2
Chicago	6
East Moline	1
Oakwood	1
Pneumonia:	
Chicago	176
Scattering	81

ILLINOIS—continued.

	Cases.
Scarlet fever:	
Blue Island	5
Chicago	305
Clarksburg	50
Evanston	6
St. Charles School for Boys	7
Western Springs	5
Woodstock	5
Scattering	32
Smallpox:	
Chicago	4
Franklin County—Eastern Township	6
Galesburg	6
Jerseyville	6
Wayne County—Burnt Prairie Township	5
Scattering	41
Typhoid fever	11

INDIANA.

Cerebrospinal meningitis:	
Lawrence County	1
Wells County	2
Diphtheria	31
Influenza:	
Clay County	200
Decatur County	109
Owen County	100
Parke County	114
Putnam County	127
Wells County	364
Scattering	1,024
Measles:	
Bartholomew County	13
Delaware County	74
Lake County	10
Marion County	123
Tippecanoe County	48
Vigo County	33
Wayne County	54
Wells County	12
Rabies in animals	2
Scarlet fever:	
Elkhart County	28
Kosciusko County	8
Lake County	11
Marion County	23
Parke County	7
St. Joseph County	36
Tippecanoe County	11
Warren County	8
Scattering	59
Smallpox:	
Marion County	8
Pike County	11
Spencer County	8
St. Joseph County	10
White County	12
Scattering	75
Typhoid fever	6

IOWA.

Diphtheria	13
Influenza:	
Brooklyn	18
Grundy County	19
Kossuth County	13
Poweshiek County	18
Wayne County	13

IOWA—continued.

	Cases.
Influenza—Continued.	
Winneshiek County	14
Scattering	75
Measles:	
Boone	7
Scattering	5
Mumps	1
Pneumonia	1
Poliomyelitis:	
Johnson County	1
Scarlet fever:	
Council Bluffs	9
Scattering	34
Smallpox:	
Cedar Rapids	7
Colfax	9
Davenport	6
Scattering	15

KANSAS.

Diphtheria	25
Influenza	3,590
Scarlet fever	107
Smallpox	117

LOUISIANA.

Diphtheria	14
Influenza	3,363
Pneumonia	71
Scarlet fever	11
Smallpox	57
Typhoid fever	6

MAINE.

Chicken pox	11
Diphtheria:	
Union	7
Scattering	6
German measles	4
Influenza:	
Bangor	104
Freeport	103
Houlton	129
Saco	147
South Berwick	103
Westbrook	137
Scattering	1,411
Measles:	
North Berwick	59
Scattering	16
Mumps	37
Pellagra	1
Pneumonia	93
Scarlet fever:	
East Livermore	7
Portland	12
Scattering	8
Smallpox	3
Tuberculosis	3
Typhoid fever	6
Whooping cough	24

MARYLAND.[1]

Chicken pox	65
Diphtheria	69
German measles	1
Influenza	3,184

MARYLAND—continued.

	Cases.
Lethargic encephalitis	1
Measles	349
Meningitis	4
Mumps	21
Pneumonia (all forms)	376
Scarlet fever	94
Septic sore throat	4
Smallpox	6
Tuberculosis	70
Typhoid fever	7
Whooping cough	41

MINNESOTA.

Cerebrospinal meningitis	2
Smallpox:	
Pope County—Bangor Township	7
Scattering	20

MONTANA.

Diphtheria	9
Influenza:	
Bozeman	18
Great Falls	70
Lewistown	10
Missoula	16
Scattering	234
Pneumonia	5
Scarlet fever	20
Smallpox	20

NEBRASKA.

Cerebrospinal meningitis:	
Ceresco	1
Chicken pox	5
Diphtheria	9
Influenza	2,492
Measles:	
Lexington	10
Omaha	19
Red Willow County	18
Scattering	17
Mumps	4
Scarlet fever:	
Omaha	25
Scattering	31
Smallpox:	
Brownville	9
Chappell	10
Culbertson	10
Merrick County	8
Nemaha	13
Nuckolls County	10
Sidney	7
Scattering	50
Typhoid fever	1
Whooping cough	5

NEW JERSEY.

Influenza	1,043
Pneumonia	396
Smallpox	1

NEW MEXICO.

Chicken pox	12
Diphtheria	4
Influenza	204

[1] Week ended Friday.

NEW MEXICO—continued.

	Cases.
Measles	50
Mumps	18
Pneumonia	11
Scarlet fever	14
Septic sore throat	2
Smallpox	8
Tuberculosis	52
Whooping cough	1

NEW YORK.

(Exclusive of New York City.)

Cerebrospinal meningitis:	
Buffalo	1
Cohoes	1
Port Chester	1
Diphtheria	175
Influenza	5,330
Measles	741
Pneumonia	1,059
Scarlet fever	189
Smallpox	1
Typhoid fever	6
Whooping cough	185

NORTH CAROLINA.

Cerebrospinal meningitis	2
Chicken pox	44
Diphtheria	32
German measles	2
Measles	66
Pneumonia (all forms)	336
Scarlet fever	18
Septic sore throat	3
Smallpox	53
Typhoid fever	1
Whooping cough	101

OHIO.

Scarlet fever:	
Akron	185
Cincinnati	67
Smallpox—Akron	27

VERMONT.

Chicken pox	9
Diphtheria	1
Influenza	1,071
Measles	56
Mumps	107
Pneumonia	73
Scarlet fever	30
Typhoid fever	2
Whooping cough	23

VIRGINIA.

	Cases.
Smallpox, prevalent in—	
Giles County.	
Page County.	
Rockingham County.	
Russell County.	
Stafford County.	

WASHINGTON.

Chicken pox	67
Diphtheria	21
Influenza	1,561
Measles	181
Mumps	24
Pneumonia	142
Scarlet fever	47
Smallpox	182
Tuberculosis	4
Typhoid fever	2
Whooping cough	38

WEST VIRGINIA.

Diphtheria	16
Measles:	
Wheeling	43
Scattering	7
Scarlet fever	9
Smallpox:	
Bluefield	7
Scattering	10
Typhoid fever	1

WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis	1
Chicken pox	34
Diphtheria	17
Influenza	12
Measles	60
Scarlet fever	22
Smallpox	17
Tuberculosis	18
Whooping cough	51
Scattering:	
Cerebrospinal meningitis	1
Chicken pox	30
Diphtheria	21
Influenza	3,119
Measles	428
Ophthalmia neonatorum	1
Scarlet fever	116
Smallpox	139
Trachoma	3
Tuberculosis	17
Typhoid fever	2
Whooping cough	87

Kentucky Report for Week Ended Feb. 21, 1920.

Cerebrospinal meningitis:	Cases.
Fleming County	1
Jefferson County	1
Chancroid	1
Chicken pox	24
Diphtheria:	
Jefferson County	13
Kenton County	4
Scattering	6
Dysentery	3
Gonorrhea	13
Influenza:	
Bourbon County	177
Boyd County	237
Campbell County	148
Fleming County	120
Franklin County	117
Fulton County	105
Hardin County	103
Harrison County	114
Henry County	125
Jefferson County	171
Kenton County	215
Knox County	124
Mason County	206
Pendleton County	161
Shelby County	127
Scattering	2,045
Measles:	
Campbell County	12
Cumberland County	14
Fleming County	21
Jefferson County	5
Kenton County	45
Knox County	8

Measles—Continued.	Cases.
McCracken County	4
Owsley County	31
Scattering	18
Mumps	8
Paratyphoid	1
Pneumonia:	
Boyd County	15
Campbell County	4
Fleming County	4
Hardin County	10
Jefferson County	46
Kenton County	26
Lewis County	7
Mason County	14
Monroe County	6
Nelson County	11
Shelby County	4
Spencer County	5
Scattering	65
Scarlet fever	24
Smallpox:	
Lincoln County	7
Perry County	8
Scattering	15
Septic sore throat	4
Syphilis	15
Tonsillitis	5
Trachoma	5
Tuberculosis:	
Jefferson County	12
Scattering	11
Typhoid fever	15
Whooping cough	28

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

Tables showing, by counties, the reported cases of cerebrospinal meningitis, malaria, pellagra, poliomyelitis, smallpox, and typhoid fever are published under the names of these diseases. (See names of these and other diseases in the table of contents.)

The following monthly State reports include only those which were received during the current week. These reports appear each week as received.

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
JANUARY, 1920.										
Connecticut	8	429	7,732	.....	1,425	.....	2	438	2	11
Idaho	.....	5	4,147	.....	9	.....	.....	42	138	1
Indiana	4	176	5,175	.....	1,673	.....	.....	809	763	22
Kansas	9	211	9,037	.....	297	.....	3	543	400	40
Mississippi	11	126	3,678	3,909	122	138	10	119	417	80
North Carolina	16	239	.....	.....	346	.....	4	191	641	44
North Dakota	.....	37	3,709	.....	228	.....	.....	381	9	17
South Carolina	4	202	.....	14	52	5	.....	11	302	5
Washington	2	150	.....	.....	759	.....	1	307	1,015	34
Wyoming	.....	5	2,526	.....	69	.....	.....	7	154	8

ANTHRAX.

Delaware, Kansas, and Ohio.

During January, 1920, one case of anthrax was reported in Kansas. During the week ended February 14, 1920, one fatal case of anthrax was reported at Cincinnati, Ohio, and one case was reported at Wilmington, Del.

CEREBROSPINAL MENINGITIS.

State Reports for January, 1920.

Place.	New cases reported.
Connecticut:	
Fairfield County—	
Bridgeport	1
Greenwich	1
New Haven County—	
Naugatuck	1
New Haven	1
Waterbury	3
New London County—	
New London	1
Total	8
Indiana:	
Huntington County	1
Jackson County	1
Vigo County	1
White County	1
Total	4
Kansas:	
Allen County—	
Iola	1
Bourbon County—	
Fort Scott (R.F.D.)	1
Crawford County—	
Pittsburg	1
Douglas County—	
Richland	1
Riley County—	
Randolph	1
Sedgwick County—	
Wichita	2
Wyandotte County—	
Kansas City	2
Total	9
Mississippi:	
Alcorn County	1
Mississippi—Continued.	
Itawamba County	2
Lauderdale	1
Lee County	1
Marshall County	1
Smith County	1
Washington County	4
Total	11
North Carolina:	
Duplin County	1
Forsyth County	1
Granville County	1
Halifax County	1
Iredell County	1
Jackson County	1
Johnston County	1
Mecklenburg	1
Robeson County	3
Rockingham County	1
Rutherford County	3
Surry County	1
Total	16
South Carolina:	
Greenville County	1
McCormick County	1
Spartanburg County	2
Total	4
Washington:	
Pierce County—	
Tacoma	1
Whatcom County—	
Bellingham	1
Total	2

City Reports for Week Ended Feb. 14, 1920.

Place.	Cases.	Deaths.
Atlanta, Ga		1
Birmingham, Ala	3	1
Boston, Mass	1	1
Brockton, Mass	1	
Chicago, Ill	1	1
Dayton, Ohio	1	1
Durham, N. C	1	
Fall River, Mass	1	1
Huntington, W. Va		2
Kansas City, Mo	1	
Lake Charles, La	1	1
Lexington, Ky	1	
Los Angeles, Calif		1
Malden, Mass	1	1
Milwaukee, Wis	5	3
Minneapolis, Minn	1	1
New Haven, Conn		1
New Orleans, La		1
New York, N. Y	6	4
Omaha, Nebr	1	
Passaic, N. J		1
Philadelphia, Pa	2	
Phillipsburg, N. J		1
Rock Island, Ill	1	1
St. Louis, Mo	2	1
Stockton, Calif		1
Washington, D. C	3	1
Wausau, Wis		1

DIPTHERIA.

See Telegraphic weekly reports from States, p. 539; Monthly summaries by States, p. 543; and Weekly reports from cities, p. 563.

FAVUS.

Connecticut Report for January, 1920.

During January, 1920, four cases of favus were reported in Connecticut.

INFLUENZA.

Mississippi Report for January, 1920.

Place.	New cases reported.	Place.	New cases reported.
Mississippi:		Mississippi—Continued.	
Adams County	150	Leake County	19
Alcorn County	66	Lee County	146
Amite County	6	Leflore County	51
Attala County	2	Lincoln County	10
Benton County	7	Lowndes County	72
Bolivar County	297	Marshall County	175
Calhoun County	5	Monroe County	298
Carroll County	12	Montgomery County	28
Chickasaw County	88	Newton County	3
Clarke County	5	Oktibbeha County	69
Clay County	27	Panola County	49
Coahoma County	78	Pearl River County	23
Copiah County	49	Pike County	7
Covington County	10	Pontotoc County	30
De Soto County	91	Prentiss County	74
Forest County	43	Quitman County	6
George County	17	Scott County	46
Greene County	88	Sharkey County	4
Grenada County	20	Sunflower County	138
Hancock County	22	Tallahatchie County	1
Harrison County	118	Tate County	28
Hinds County	91	Tippah County	19
Holmes County	34	Tishomingo County	27
Humphreys County	4	Tunica County	51
Issaquena County	3	Union County	32
Itawamba County	23	Warren County	198
Jackson County	20	Washington County	41
Jefferson County	19	Webster County	18
Jefferson Davis County	45	Wilkinson County	16
Jones County	46	Winston County	35
Kemper County	136	Yalobusha County	70
Lafayette County	140	Yazoo County	13
Lauderdle County	118		
Lawrence County	1	Total	3,678

City Reports for Weeks Ended Feb. 7, 14, 21, and 28, 1920.

Place.	Cases week ended—				Deaths week ended—			
	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.
Adams, Mass	72	50	.....	.....	.....	1	.....	.....
Akron, Ohio	134	251	18	.....	.....	.....	.....	.....
Alameda, Calif	260	201	160	.....	5	9	2	.....
Alexandria, Va	26	.....	.....	.....	.....	.....	.....	.....
Alliance, Ohio	54	96	.....	.....	.....	.....	.....	.....
Alpena, Mich	10	9	.....	.....	.....	.....	.....	.....
Alton, Ill	428	116	39	18	11	14	3	1
Amesbury, Mass	65	97	39	38	.....	.....	.....	1
Anaconda, Mont	2	5	.....	.....	1	.....	.....	.....
Ann Arbor, Mich	152	82	78	4	1	.....	.....	.....
Anniston, Ala	69	67	65	44	.....	.....	.....	.....
Ansonia, Conn	363	215	110	9	1	.....	.....	.....
Appleton, Wis	81	.....	9	.....	.....	.....	.....	.....
Arlington, Mass	68	.....	30	.....	1	.....	2	1
Asbury Park, N. J	23	28	6	.....	.....	.....	.....	.....
Ashland, Ky	131	253	258	93	.....	.....	.....	.....

INFLUENZA—Continued.

City Reports for Weeks Ended Feb. 7, 14, 21, and 28, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.
Ashtabula, Ohio	121	38	25	12	2	4	6	5
Atlanta, Ga	1,868	2,258	1,427	.....	16	50	74	50
Atlantic, N. J	50	39	22	15	.....	.....	1	1
Attleboro, Mass	117	29	15	.....	.....	1	.....	.....
Auburn, Me	24	33	47	9	.....	.....	3	4
Auburn, N. Y	90	.....	18	.....	.....	.....	.....	.....
Austin, Tex	.....	.....	.....	.....	2	2	1	.....
Baltimore, Md	3,412	4,530	1,614	655	44	73	75	36
Bangor, Me	49	193	85	104	.....	.....	.....	.....
Barberton, Ohio	2	.....	.....	.....	1	2	1	.....
Barre, Vt	.....	1	.....	.....	.....	.....	.....	.....
Baton Rouge, La	1	.....	.....	.....	1	.....	.....	.....
Battle Creek, Mich	111	.....	4	6	.....	.....	.....	.....
Bayonne, N. J	108	77	31	3	.....	.....	.....	.....
Beatrice, Nebr	17	16	.....	.....	.....	.....	.....	.....
Beaumont, Tex	.....	74	.....	.....	1	1	.....	2
Bedford, Ind	4	6	2	.....	.....	.....	.....	.....
Belleville, N. J	42	29	1	8	.....	.....	.....	.....
Beloit, Wis	89	.....	7	.....	.....	.....	.....	.....
Benton Harbor, Mich	150	.....	2	.....	.....	.....	.....	.....
Berkeley, Calif	385	347	259	.....	6	8	2	.....
Beverly, Mass	55	66	15	.....	1	1	2	.....
Biddeford, Me	.....	76	.....	8	.....	1	.....	1
Billings, Mont	53	8	.....	1	.....	1	.....	.....
Binghamton, N. Y	208	.....	205	67	2	.....	5	9
Birmingham, Ala	.....	.....	444	464	11	6	27	31
Bloomfield, N. J	11	12	3	1	.....	1	1	.....
Bloomington, Ill	201	80	.....	32	.....	1	2	1
Bloomington, Ind	38	52	21	40	.....	.....	.....	2
Bluefield, W. Va	100	137	81	23	.....	.....	1	.....
Boise, Idaho	45	53	.....	.....	.....	.....	.....	.....
Boston, Mass	2,859	2,113	760	450	66	139	106	73
Brazil, Ind	2	157	116	84	.....	.....	.....	.....
Bridgeport, Conn	649	437	287	130	24	24	19	20
Bristol, Conn	95	158	46	5	1	1	1	.....
Brockton, Mass	60	45	8	.....	.....	4	1	.....
Brookline, Mass	46	72	33	6	3	4	1	.....
Brunswick, Ga	18	44	92	86	.....	.....	.....	1
Buffalo, N. Y	1,260	1,333	.....	.....	34	81	.....	.....
Burlington, Iowa	83	28	5	3	1	2	1	2
Burlington, Vt	1	12	24	11	1	3	.....	1
Butler, Pa	77	58	52	.....	.....	.....	.....	.....
Butte, Mont	112	66	10	.....	2	2	.....	.....
Cadillac, Mich	12	75	200	.....	.....	.....	3	.....
Cairo, Ill	125	105	112	.....	.....	.....	2	.....
Cambridge, Mass	501	600	183	74	4	12	9	3
Canton, Ill	.....	.....	.....	.....	12	9	6	.....
Canton, Ohio	398	53	25	.....	19	19	3	4
Cedar Rapids, Iowa	97	14	.....	.....	.....	.....	.....	.....
Centralia, Ill	107	19	11	2	.....	.....	.....	.....
Chanute, Kans	150	421	322	.....	2	.....	1	.....
Charleston, S. C	826	1,208	759	655	2	16	33	4
Charleston, W. Va	921	210	35	8	.....	.....	.....	.....
Charlotte, N. C	[1] 237	393	123	32	[1] 4	4	7	2
Chattanooga, Tenn	170	181	106	94	1	3	14	3
Chelsea, Mass	148	116	31	9	5	.....	2	.....
Cheyenne, Wyo	.....	1	1	.....	.....	1	1	.....
Chicago, Ill	4,641	1,741	597	394	560	240	127	66
Chicopee, Mass	4	5	17	2	.....	1	.....	.....
Chillicothe, Ohio	.....	.....	57	9	.....	.....	.....	.....
Cincinnati, Ohio	388	456	334	365	19	33	41	58
Cleveland, Ohio	2,243	1,064	483	143	79	151	102	54
Clinton, Mass	7	25	29	38	.....	.....	.....	3
Coffeyville, Kans	33	118	103	59	.....	1	.....	3
Cohoes, N. Y	245	107	60	12	.....	.....	.....	.....
Columbia, S. C	313	387	168	95	.....	.....	.....	.....
Columbus, Ga	152	351	192	.....	.....	3	7	.....
Columbus, Ohio	2,013	702	160	35	34	68	49	29
Concord, N. H	1	.....	.....	.....	.....	.....	.....	.....
Corpus Christi, Tex	41	114	28	155	.....	.....	.....	.....
Cortland, N. Y	.....	32	27	.....	.....	.....	.....	.....
Coshocton, Ohio	.....	132	172	13	.....	.....	.....	.....
Council Bluffs, Iowa	47	2	.....	.....	8	5	3	.....
Covington, Ky	101	93	103	111	.....	1	7	1
Cranston, R. I	22	16	8	.....	.....	.....	3	.....
Cumberland, Md	423	403	252	135	2	6	4	2

[1] Including pneumonia.

INFLUENZA—Continued.

City Reports for Weeks Ended Feb. 7, 14, 21, and 28, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.
Dallas, Tex	1,114	818	207	.....	26	22	17	.....
Danbury, Conn	254	.....	17	.....	.....	.....	.....	.....
Danvers, Mass	24	35	17	.....	.....	.....	.....	.....
Danville, Ill	.....	800	286	20	.....	5	.....	2
Danville, Va	298	.....	.....	348	.....	.....	.....	7
Davenport, Iowa	132	18	4	.....	.....	.....	.....	.....
Dayton, Ohio	19	5	3	3	13	5	16	3
Decatur, Ill	210	82	15	.....	5	5	2	.....
Denver, Colo	.....	62	141	.....	74	81	32	.....
Detroit, Mich	1,529	282	36	18	254	185	55	23
Dover, N. H	13	59	31	16	.....	.....	.....	.....
Dubois, Pa	.....	150	140	43	.....	.....	1	.....
Dubuque, Iowa	317	51	2	2	16	.....	2	.....
Duluth, Minn	425	223	35	5	18	24	9	4
Durham, N. C	.....	.....	.....	.....	.....	.....	4	.....
East Chicago, Ind	.....	.....	.....	.....	5	3	1	.....
East Cleveland, Ohio	38	.....	1	.....	.....	.....	.....	.....
Easthampton, Mass	14	22	.....	.....	.....	.....	.....	.....
East Orange, N. J	169	117	22	14	3	2	1	.....
East Providence, R. I	11	2	.....	.....	.....	.....	.....	.....
East St. Louis, Ill	338	111	29	12	6	6	7	2
Elgin, Ill	6	3	.....	2	1	1	2	.....
Elizabeth, N. J	.....	.....	3	8	.....	.....	7	9
Elkhart, Ind	32	6	.....	.....	.....	.....	.....	.....
Elmira, N. Y	12	9	21	.....	1	.....	11	.....
El Paso, Tex	.....	.....	.....	.....	3	8	14	11
Englewood, N. J	14	.....	1	.....	.....	.....	1	.....
Erie, Pa	2,587	985	236	50	29	29	25	12
Eureka, Calif	10	8	40	.....	1	.....	.....	.....
Evanston, Ill	67	10	7	1	.....	.....	.....	.....
Evansville, Ind	26	.....	.....	.....	1	.....	.....	.....
Everett, Mass	117	89	38	.....	.....	5	1	.....
Everett, Wash	.....	172	.....	.....	.....	.....	.....	.....
Fairmont, W. Va	178	594	435	141	.....	1	8	.....
Fall River, Mass	185	197	81	47	2	6	11	9
Flint, Mich	361	26	.....	.....	6	5	.....	.....
Fond du Lac, Wis	183	.....	5	.....	.....	.....	.....	.....
Fort Dodge, Iowa	.....	14	2	.....	.....	.....	.....	.....
Fort Smith, Ark	.....	.....	138	.....	.....	.....	.....	.....
Fort Worth, Tex	.....	.....	3	.....	7	5	3	.....
Fostoria, Ohio	40	13	.....	4	.....	.....	.....	.....
Framingham, Mass	51	47	48	20	.....	2	2	4
Freeport, Ill	[1]19	[1]5	12	.....	[1]13	[1]8	2	.....
Fremont, Ohio	4	2	.....	2	.....	.....	.....	.....
Galesburg, Ill	101	61	15	4	.....	2	1	.....
Galveston, Tex	274	342	72	4	1	2	.....	1
Gardner, Mass	15	.....	12	31	.....	.....	3	2
Gary, Ind	.....	.....	.....	.....	7	8	2	1
Grand Rapids, Mich	414	432	152	.....	4	5	4	.....
Granite City, Ill	116	35	14	2	1	1	.....	.....
Great Falls, Mont	48	113	193	.....	.....	.....	12	.....
Green Bay, Wis	79	.....	6	.....	.....	.....	.....	.....
Greensboro, N. C	.....	.....	.....	.....	.....	.....	13	.....
Greenfield, Mass	108	36	23	9	.....	1	.....	1
Greenwich, Conn	127	44	47	19	1	4	3	2
Hackensack, N. J	118	25	29	23	.....	.....	.....	.....
Hammond, Ind	.....	.....	.....	.....	.....	2	2	.....
Harrison, N. J	7	2	1	.....	.....	.....	.....	.....
Hartford, Conn	602	116	27	.....	22	32	19	.....
Haverhill, Mass	380	543	208	57	8	10	2	7
Hibbing, Minn	316	245	35	.....	.....	.....	1	.....
Highland Park, Mich	147	58	.....	.....	.....	.....	.....	.....
Hoboken, N. J	34	4	3	.....	3	3	.....	.....
Holland, Mich	16	10	.....	.....	.....	1	.....	.....
Holyoke, Mass	37	31	24	7	.....	1	1	1
Hot Springs, Ark	135	211	.....	.....	.....	.....	.....	.....
Houston, Tex	.....	387	.....	.....	.....	7	.....	.....
Hudson, N. Y	.....	.....	.....	.....	.....	.....	1	3
Huntington, Ind	.....	1	.....	.....	1	1	.....	.....
Huntington, W. Va	626	584	91	75	.....	1	.....	.....
Hutchinson, Kans	40	39	.....	4	.....	.....	.....	.....
Independence, Mo	200	6	2	.....	20	16	2	.....
Indianapolis, Ind	.....	211	76	.....	.....	124	38	26
Iowa City, Iowa	75	200	30	.....	7	4	.....	.....
Ironton, Ohio	21	47	12	.....	.....	.....	.....	.....

[1] Including pneumonia.

INFLUENZA—Continued.

City Reports for Weeks Ended Feb. 7, 14, 21, and 28, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.
Ironwood, Mich	58	199	219	.....	.....	4	9	.....
Ishpeming, Mich	5	34	47	.....	.....	.....	2	.....
Ithaca, N. Y	248	291	68	19	.....	1	.....	1
Jacksonville, Ill	251	.....	11	6	1	.....	.....	1
Jamestown, N. Y	962	274	104	17	1	.....	.....	.....
Janesville, Wis	12	.....	5	.....	3	.....	.....	.....
Jefferson City, Mo	.....	.....	.....	.....	.....	1	.....	.....
Jersey City, N. J	244	69	20	2	.....	.....	.....	.....
Joplin, Mo	185	40	14	8	.....	.....	.....	.....
Kalamazoo, Mich	283	298	87	.....	4	4	3	1
Kankakee, Ill	56	22	.....	.....	.....	3	1	.....
Kansas City, Kans	722	290	41	21	.....	.....	.....	.....
Kansas City, Mo	720	191	55	13	32	90	40	20
Kearny, N. J	147	69	39	24	.....	.....	.....	.....
Keene, N. H	45	.....	.....	37	.....	2	.....	.....
Kenosha, Wis	241	.....	32	.....	.....	.....	.....	.....
Knoxville, Tenn	698	622	200	123	15	29	23	17
Kokomo, Ind	.....	.....	.....	.....	.....	.....	2	1
Lackawanna, N. Y	103	194	76	82	1	2	.....	.....
La Crosse, Wis	309	80	.....	.....	.....	.....	.....	.....
La Fayette, Ind	56	55	4	9	1	.....	4	1
Lake Charles, La	110	257	160	.....	.....	.....	1	.....
Lancaster, Ohio	9	60	8	3	.....	.....	.....	1
Lancaster, Pa	123	45	9	.....	.....	.....	.....	.....
La Salle, Ill	87	29	.....	.....	1	7	.....	.....
Lawrence, Kans	205	143	85	.....	.....	.....	.....	.....
Lawrence, Mass	109	108	64	.....	1	3	5	.....
Leavenworth, Kans	164	109	14	.....	.....	.....	.....	.....
Leominster, Mass	32	106	45	35	.....	1	1	.....
Lexington, Ky	44	97	80	55	.....	1	2	3
Lima, Ohio	127	197	14	.....	1	4	6	.....
Lincoln, Nebr	40	4	.....	.....	9	8	3	.....
Lincoln, R. I	16	17	11	.....	1	.....	.....	.....
Little Rock, Ark	744	610	.....	.....	.....	.....	.....	.....
Lockport, N. Y	136	175	71	2	.....	4	1	.....
Logansport, Ind	.....	.....	.....	.....	2	.....	2	.....
Long Beach, Calif	128	.....	95	.....	.....	.....	1	.....
Lorain, Ohio	200	80	39	6	2	.....	1	1
Los Angeles, Calif	2,215	2,563	1,683	.....	4	12	8	.....
Louisville, Ky	492	432	172	112	7	5	3	5
Lowell, Mass	214	407	340	102	.....	.....	6	7
Ludington, Mich	100	74	.....	2	.....	.....	.....	.....
Lynchburg, Va	207	306	127	56	1	8	5	9
Lynn, Mass	333	280	137	.....	8	26	10	.....
Macon, Ga	24	45	29	.....	1	.....	3	.....
Madison, Wis	221	.....	18	.....	.....	.....	.....	.....
Malden, Mass	439	315	143	.....	5	10	3	.....
Manchester, Conn	194	59	6	.....	2	.....	.....	.....
Manchester, N. H	87	104	61	.....	1	12	5	.....
Manitowoc, Wis	235	.....	15	.....	.....	.....	.....	.....
Mankato, Minn	6	6	2	.....	4	2	.....	.....
Marinette, Wis	192	.....	2	.....	.....	.....	.....	.....
Marion, Ind	60	56	44	17	.....	2	3	1
Marion, Ohio	14	.....	4	.....	.....	.....	.....	.....
Martins Ferry, Ohio	12	40	30	.....	.....	2	4	.....
Mason City, Iowa	24	5	.....	.....	.....	.....	.....	.....
Mattoon, Ill	82	36	.....	3	.....	.....	.....	.....
Medford, Mass	65	82	39	5	.....	2	2	1
Melrose, Mass	22	40	2	1	.....	4	1	1
Memphis, Tenn	1,333	1,085	327	.....	7	22	13	.....
Meriden, Conn	150	270	103	79	2	.....	.....	.....
Methuen, Mass	46	32	27	16	.....	.....	.....	.....
Middletown, N. Y	89	156	126	99	.....	.....	.....	.....
Milwaukee, Wis	27	.....	27	12	10	.....	.....	.....
Minneapolis, Minn	1,225	149	71	.....	131	95	38	.....
Mishawaka, Ind	.....	.....	.....	.....	2	1	.....	1
Missoula, Mont	125	141	32	15	1	2	.....	.....
Mobile, Ala	302	675	482	180	4	10	9	11
Monmouth, Ill	.....	20	36	.....	.....	1	1	.....
Montgomery, Ala	.....	99	126	122	.....	1	3	3
Morgantown, W. Va	347	281	123	72	.....	.....	.....	.....
Morristown, N. J	66	31	7	.....	1	.....	.....	.....
Moundsville, W. Va	102	62	19	.....	.....	.....	.....	.....
Mount Vernon, N. Y	282	183	51	.....	2	.....	1	.....
Muncie, Ind	43	9	.....	.....	.....	3	.....	2
Muscatine, Iowa	.....	.....	.....	.....	.....	2	.....	.....

[1] Including pneumonia.

INFLUENZA—Continued.

City Reports for Weeks Ended Feb. 7, 14, 21, and 28, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.	Feb. 1.	Feb. 14.	Feb. 21.	Feb. 28.
Nanticoke, Pa.			1					
Nashua, N. H.	130	124	116	60		1	1	
Nashville, Tenn.	29	182	134	153	2	10	34	50
Newark, N. J.		1,498	25		62	52		
New Bedford, Mass.	170	289	201	77			1	1
New Britain, Conn.	659	462	178	51	3	13	14	8
New Brunswick, N. J.	165	85	10	14				
Newburyport, Mass.	43	48	12	14				
New Haven, Conn.	278	190	163	72	11	37	34	14
New London, Conn.	98	119	47	18				
New Orleans, La.	502	782	478	529	4	17	31	37
Newport, R. I.	585	905	313			9	5	
Newton, Mass.	152	58		6	1	7		1
New York, N. Y.	21,388	8,091	3,030	1,069	965	731	360	151
Niagara Falls, N. Y.	173	358	170	66	1	6	2	4
Norfolk, Va.	602	241	74		1	2	2	
North Adams, Mass.		76	62	52		2	2	
Northampton, Mass.	53	34	19	4	1	1	1	
North Attleboro, Mass.	2							
North Little Rock, Ark.	98		46	11	2			
North Tonawanda, N. Y.	127	107	160	20		2		
Norwalk, Conn.	20	9		1		3	1	
Norwich, Conn.	59	50	30			10	1	
Norwood, Ohio.	16	3						
Oakland, Calif.			378		38			
Oak Park, Ill.	41	11	2	4		3		
Oklahoma City, Okla.	264	44	38	3	8	12	5	8
Olean, N. Y.	2	43						
Omaha, Nebr.	144	30	6	4	30	29	13	
Orange, N. J.	131	58	25	10	4	1	2	1
Oshkosh, Wis.	142	24	9					
Paducah, Ky.	45	123	54	49				
Parkersburg, W. Va.	146	39	19	12	2	6		1
Parsons, Kans.	113	114		5				
Pasadena, Calif.	223	165	81					
Passaic, N. J.	267	139	76		2	2	2	
Paterson, N. J.	296	173	92	36				
Pawtucket, R. I.		145	28		1	7	5	
Pekin, Ill.	120	90	59					
Peoria, Ill.	333	45	10	6		3	1	1
Perth Amboy, N. J.	67	16						
Petersburg, Va.	182	210	160	85			1	3
Philadelphia, Pa.	2,627	2,212	1,069	295	107	200	218	112
Pine Bluff, Ark.	127	25		22				
Piqua, Ohio.			98			3	1	
Pittsfield, Mass.	181	145	26	8	8	5	6	5
Plainfield, N. J.	141	103	22	10	7	4		1
Pontiac, Mich.	308	56	16	3		1	1	
Port Chester, N. Y.	35	43	4	6		1		1
Port Huron, Mich.		102	10	4		7	3	1
Portland, Me.	545	380	133	14	7	12	11	11
Portland, Oreg.	553	742	576		4	29	31	
Portsmouth, N. H.	49	15	9	8				
Portsmouth, Ohio.	645				8			
Portsmouth, Va.	699				2			
Poughkeepsie, N. Y.	52	43	1		3		1	
Providence, R. I.	1,488	1,201	724	217	13	30	28	19
Provo, Utah.	1,700	560	8				3	
Pueblo, Colo.		33	1		1	2	2	
Quincy, Ill.	230	69	12		1	2	2	
Quincy, Mass.	84	36		1		3		1
Racine, Wis.	135		13					
Rahway, N. J.	1							2
Raleigh, N. C.	689	758	[1] 252	57		2	[1] 11	
Reading, Pa.	260		48	11	18		9	1
Redlands, Calif.	5	8	38					
Red Wing, Minn.	43				3			
Reno, Nev.	59		62					
Richmond, Ind.	49	1	1	3	1			
Richmond, Va.	2,516	842	359	85	23	20	10	7
Riverside, Calif.	65	97	106					
Roanoke, Va.	1,289	465	110	46				
Rochester, N. Y.	1,357	601	175	111	25	21	12	8
Rockford, Ill.	68						2	
Rock Island, Ill.	172		15	6	1			
Rocky Mount, N. C.	250	250	250	150			2	4

[1] Including pneumonia.

INFLUENZA—Continued.

City Reports for Weeks Ended Feb. 7, 14, 21, and 28, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.	Feb. 7.	Feb. 14.	Feb. 21.	Feb. 28.
Rome, Ga.	148	546	646	358	.....	5	.....	19
Rutland, Vt.	.....	124	105	.....	.....	1	7	.....
Sacramento, Calif.	271	173	153	94	5	10	2	.....
St. Cloud, Minn.	152	78	25	.....	.....	.....	1	.....
St. Joseph, Mo.	884	654	164	50	4	6	11	4
St. Louis, Mo.	.....	.....	115	38	.....	.....	54	14
St. Paul, Minn.	413	44	14	.....	61	48	15	.....
Salem, Mass.	13	.....	7	.....	1	.....	.....	.....
Salem, Oreg.	39	67	.....	.....	1	2	.....	.....
Salt Lake City, Utah.	1,288	476	74	10	48	52	21	10
San Bernardino, Calif.	45	70	.....	.....	.....	.....	.....	.....
San Diego, Calif.	392	259	205	.....	.....	7	10	.....
Sandusky, Ohio.	101	84	31	2	.....	.....	2	.....
Sanford, Me.	141	203	148	.....	.....	.....	.....	.....
San Francisco, Calif.	1,474	.....	1,466	.....	71	.....	78	.....
Santa Barbara, Calif.	108	.....	33	.....	.....	.....	7	.....
Santa Cruz, Calif.	10	5	.....	.....	.....	.....	.....	.....
Saratoga Springs, N. Y.	154	267	164	.....	.....	.....	.....	.....
Sault Ste. Marie, Mich.	55	39	7	.....	.....	.....	.....	.....
Savannah, Ga.	595	1,588	972	529	6	16	44	33
Schenectady, N. Y.	91	53	30	.....	5	10	12	.....
Seattle, Wash.	1,253	909	447	.....	22	80	62	.....
Sioux Falls, S. Dak.	286	60	28	2	5	4	9	3
Somerville, Mass.	396	319	72	48	1	12	3	1
South Bend, Ind.	25	5	1	.....	.....	.....	.....	.....
Spartanburg, S. C.	480	305	23	.....	5	3	.....	.....
Springfield, Ill.	.....	76	4	8	.....	2	1	.....
Springfield, Mass.	188	201	78	15	4	12	17	8
Springfield, Mo.	.....	.....	.....	.....	5	5	10	.....
Springfield, Ohio.	252	122	10	.....	3	4	1	1
Stamford, Conn.	76	16	.....	.....	.....	.....	.....	.....
Staunton, Va.	122	99	32	71	.....	1	1	.....
Steelton, Pa.	45	4	3	.....	1	.....	1	.....
Steubenville, Ohio.	4	2	1	.....	.....	.....	.....	.....
Stillwater, Minn.	.....	6	.....	.....	.....	.....	.....	.....
Stockton, Calif.	212	142	.....	.....	.....	1	.....	.....
Superior, Wis.	.....	140	.....	.....	.....	.....	.....	.....
Syracuse, N. Y.	62	15	10	2	32	25	5	5
Taunton, Mass.	34	.....	44	52	4	1	2	3
Terre Haute, Ind.	34	10	13	8	.....	.....	2	4
Tiffin, Ohio.	56	71	35	.....	.....	1	.....	.....
Toledo, Ohio.	299	274	62	45	19	19	20	10
Topeka, Kans.	418	591	229	.....	5	5	12	.....
Traverse City, Mich.	72	73	39	15	.....	.....	.....	.....
Trenton, N. J.	380	223	160	95	5	14	5	5
Trinidad, Colo.	95	.....	7	.....	.....	.....	.....	.....
Tucson, Ariz.	10	2	2	.....	.....	.....	.....	.....
Union, N. J.	3	.....	.....	.....	.....	.....	.....	.....
Vallejo, Calif.	100	50	40	.....	.....	.....	.....	.....
Virginia, Minn.	95	196	.....	.....	.....	.....	.....	.....
Waco, Tex.	45	13	1	.....	.....	3	2	.....
Waltham, Mass.	290	212	92	.....	2	1	1	.....
Washington, D. C.	557	298	104	36	62	34	17	9
Waterbury, Conn.	448	146	.....	.....	.....	1	.....	.....
Watertown, Mass.	35	34	8	96	.....	.....	.....	.....
Watertown, N. Y.	154	211	125	.....	.....	3	1	.....
Wausau, Wis.	346	115	89	30	.....	1	1	.....
Westfield, Mass.	6	57	44	19	.....	.....	1	1
West Hoboken, N. J.	91	19	4	2	2	.....	1	.....
West New York, N. J.	5	.....	.....	.....	1	.....	.....	.....
West Orange, N. J.	93	.....	11	.....	2	.....	.....	.....
Wheeling, W. Va.	82	134	63	33	1	9	14	8
Wichita, Kans.	230	165	142	10	1	3	9	4
Wilkes-Barre, Pa.	.....	.....	.....	.....	10	11	[1]21	8
Wilkinsburg, Pa.	90	42	18	4	.....	.....	6	2
Wilmington, Del.	.....	.....	.....	.....	.....	.....	3	.....
Wilmington, N. C.	41	.....	581	.....	.....	.....	2	.....
Winchester, Mass.	26	26	.....	.....	.....	.....	.....	.....
Windham, Conn.	.....	8	.....	.....	.....	.....	.....	.....
Winona, Minn.	56	55	12	.....	.....	.....	.....	.....
Winston-Salem, N. C.	1,810	1,810	532	219	7	19	14	4
Winthrop, Mass.	73	51	24	5	2	.....	.....	.....
Woburn, Mass.	.....	.....	.....	.....	1	2	.....	.....
Worcester, Mass.	463	418	269	102	7	18	13	9
Yonkers, N. Y.	55	53	14	.....	6	5	2	.....
Zanesville, Ohio.	.....	308	.....	.....	.....	.....	.....	.....

[1] Including pneumonia.

LEPROSY.

Houston, Tex., and Norwood, Ohio.

During the week ended February 14, 1920, one case of leprosy was reported at Houston, Tex., and one death was reported at Norwood, Ohio.

MALARIA.

Mississippi and South Carolina—January, 1920.

Place.	New cases reported.	Place.	New cases reported.
Mississippi:		Mississippi—Continued.	
Adams County	40	Marshall County	20
Alcorn County	47	Monroe County	53
Amite County	56	Montgomery County	28
Attala County	16	Neshoba County	50
Benton County	7	Newton County	19
Bolivar County	271	Noxubee County	28
Calhoun County	14	Oktibbeha County	61
Carroll County	60	Panola County	55
Chickasaw County	20	Pearl River County	33
Choctaw County	20	Perry County	35
Claiborne County	41	Pike County	25
Clarke County	29	Pontotoc County	46
Clay County	19	Prentiss County	6
Coahoma County	72	Quitman County	89
Copiah County	64	Rankin County	20
Covington County	43	Scott County	32
De Soto County	19	Sharkey County	88
Forrest County	26	Simpson County	39
Franklin County	46	Smith County	39
George County	8	Stone County	25
Greene County	34	Sunflower County	227
Grenada County	24	Tallahatchie County	64
Hancock County	42	Tate County	54
Harrison County	11	Tippah County	12
Hinds County	137	Tishomingo County	22
Holmes County	123	Tunica County	87
Humphreys County	114	Union County	12
Issaquena County	31	Walthall County	5
Itawamba County	12	Warren County	123
Jackson County	24	Washington County	66
Jasper County	60	Wayne County	9
Jefferson County	50	Webster County	10
Jefferson Davis County	9	Wilkinson County	18
Jones County	94	Winston County	88
Kemper County	17	Yalobusha County	33
Lafayette County	24	Yazoo County	171
Lamar County	28		
Lauderdale County	16	Total	3,909
Lawrence County	6		
Leake County	19	South Carolina:	
Lee County	53	Chester County	2
Leflore County	116	Marion County	11
Lincoln County	51	Spartanburg County	1
Lowndes County	22		
Madison County	17	Total	14
Marion County	65		

Alexandria, La., and Dallas, Tex.

During the week ended February 14, 1920, there were reported 57 cases of malaria at Alexandria, La., and 2 cases at Dallas, Tex.

MEASLES.

See Telegraphic weekly reports from States, p. 539; Monthly summaries by States, p. 543; and Weekly reports from cities, p. 563.

PELLAGRA.

Mississippi and South Carolina—January, 1920.

Place.	New cases reported.
Mississippi:	
Adams County	6
Alcorn County	2
Amite County	1
Bolivar County	9
Calhoun County	1
Carroll County	1
Chickasaw County	1
Claiborne County	1
Clay County	2
Coahoma County	4
Copiah County	3
De Soto County	2
Forrest County	2
George County	2
Greene County	1
Hinds County	14
Holmes County	3
Jasper County	2
Jefferson County	1
Jefferson Davis County	1
Jones County	3
Lamar County	1
Lauderdale County	2
Lee County	4
Madison County	1
Marion County	1
Marshall County	4
Montgomery County	2
Neshoba County	3
Noxubee County	3
Oktibbeha County	1
Pearl River County	2
Pike County	3
Pontotoc County	1
Prentiss County	2
Quitman County	1
Scott County	1
Sharkey County	2
Smith County	1
Stone County	4
Sunflower County	1
Tallahatchie County	1
Tishomingo County	8
Tunica County	2
Union County	1
Warren County	4
Washington County	8
Wayne County	1
Webster County	1
Wilkinson County	1
Yalobusha County	1
Yazoo County	8
Total	138
South Carolina:	
Chester County	2
Spartanburg County	2
Union County	1
Total	5

City Reports for Week Ended Feb. 14, 1920.

Place.	Cases.	Deaths.
Anniston, Ala.	1	
Austin, Tex.		1
Birmingham, Ala.		1
Charlotte, N. C.		1
Columbus, Ga.	1	1
Norfolk, Va.		1
Raleigh, N. C.		2

PLAGUE (RODENT).

New Orleans, La.

The table below gives a record of rodent cases of plague at New Orleans, La., from February 20 to 27, and is a continuation of the table printed on page 480 of the Public Health Reports dated February 27, 1920.

No case of human plague in New Orleans has been confirmed since December 30, 1919.

Date confirmed.	Mus Alexandrinus and mus rattus.	Mus musculus.	Mus Norvegicus.	Total rodents plague infected.
1920.				
Feb. 20			1	1
Feb. 21			1	1
Feb. 22			2	2
Feb. 23			4	4
Feb. 24	1		1	2
Feb. 25		1	2	3
Feb. 26	3		5	8
Feb. 27			1	1

PNEUMONIA (ALL FORMS).

City Reports for Week Ended Feb. 14, 1920.

Place.	Cases.	Deaths.
Adams, Mass	3	2
Akron, Ohio	11	...
Alameda, Calif	5	2
Albany, N. Y	41	...
Alexandria, Va	2	4
Alliance, Ohio	5	7
Alpena, Mich	1	...
Alton, Ill	11	3
Amesbury, Mass	2	...
Anaconda, Mont	1	2
Anderson, Ind	...	15
Ann Arbor, Mich	34	17
Anniston, Ala	2	...
Ansonia, Conn	4	6
Arlington, Mass	1	9
Asbury Park, N. J	4	1
Ashland, Ky	21	4
Ashtabula, Ohio	...	3
Atlanta, Ga	10	25
Atlantic City, N. J	16	6
Attleboro, Mass	1	...
Austin, Tex	...	3
Baltimore, Md	705	195
Barberton, Ohio	...	13
Barre, Vt	1	...
Bayonne, N. J	5	...
Beatrice, Nebr	...	5
Beaumont, Tex	...	1
Bedford, Ind	...	1
Belleville, N. J	4	...
Benton Harbor, Mich	2	...
Berkeley, Calif	3	2
Beverly, Mass	8	5
Biddeford, Me	15	5
Billings, Mont	3	2
Birmingham, Ala	...	12
Bloomfield, N. J	7	3
Bloomington, Ill	...	15
Bluefield, W. Va	17	...
Boston, Mass	137	116
Brazil, Ind	1	2
Bridgeport, Conn	...	20
Bristol, Conn	18	5
Brockton, Mass	7	4
Brookline, Mass	6	5
Buffalo, N. Y	250	60
Burlington, Iowa	...	6
Burlington, Vt	5	3
Butte, Mont	13	21
Cairo, Ill	6	2
Cambridge, Mass	39	16
Canton, Ill	...	3
Canton, Ohio	...	2
Centralia, Ill	4	...
Chanute, Kans	...	1
Charleston, S. C	35	5
Charleston, W. Va	4	1
Charlotte, N. C	8	3
Chattanooga, Tenn	...	14
Chelsea, Mass	8	6
Cheyenne, Wyo	2	...
Chicago, Ill	871	254
Cincinnati, Ohio	40	29
Cleveland, Ohio	215	107
Clinton, Mass	6	4
Coffeyville, Kans	2	...
Columbia, S. C	15	...
Columbus, Ga	11	3
Columbus, Ohio	...	48
Concord, N. H	...	4
Corpus Christi, Tex	1	...
Cortland, N. Y	13	...
Council Bluffs, Iowa	...	1
Covington, Ky	...	10
Cranston, R. I	8	6
Cumberland, Md	49	7
Dallas, Tex	33	28
Danvers, Mass	4	1
Danville, Ill	...	20
Dayton, Ohio	4	...
Decatur, Ill	19	20
Dedham, Mass	1	...
Denver, Colo	...	79
Detroit, Mich	148	296
Dubuque, Iowa	12	15
Duluth, Minn	10	4
Durham, N. C	3	2
East Chicago, Ind	...	7
Easthampton, Mass	6	2
East Orange, N. J	15	3
East St. Louis, Ill	5	11
Elgin, Ill	4	2
Elizabeth, N. J	24	20
Elkhart, Ind	6	4
El Paso, Tex	...	11
Englewood, N. J	2	2
Eureka, Calif	1	1
Evanston, Ill	1	...
Evansville, Ind	3	12
Everett, Mass	7	12
Fall River, Mass	22	10
Findlay, Ohio	5	5
Flint, Mich	28	45
Fort Dodge, Iowa	...	10
Fort Worth, Tex	33	33
Fostoria, Ohio	1	...
Framingham, Mass	...	5
Freeport, Ill	...	1
Fremont, Nebr	...	1
Fremont, Ohio	3	...
Galesburg, Ill	8	14
Galveston, Tex	5	11
Gardner, Mass	2	1
Gary, Ind	...	8
Geneva, N. Y	12	2
Glens Falls, N. Y	4	...
Gloucester, N. J	12	...
Grand Rapids, Mich	102	24
Granite City, Ill	...	2
Great Falls, Mont	15	3
Greeley, Colo	...	1
Greenfield, Mass	...	3
Greensboro, N. C	...	6
Greenwich, Conn	14	1
Hackensack, N. J	8	5
Hammond, Ind	2	16
Harrison, N. J	14	...
Hartford, Conn	18	23
Haverhill, Mass	22	4
Hibbing, Minn	27	...
Highland Park, Mich	33	12
Hoboken, N. J	19	18
Holland, Mich	8	4
Holyoke, Mass	2	12
Hot Springs, Ark	5	1
Houston, Tex	23	23
Huntington, Ind	2	2
Huntington, W. Va	...	12
Hutchinson, Kans	1	...
Independence, Mo	20	20
Irvington, N. J	15	...
Ishpeming, Mich	2	1
Ithaca, N. Y	15	6
Jamestown, N. Y	63	26
Janesville, Wis	...	3
Jefferson City, Mo	...	2
Jersey City, N. J	52	...
Joplin, Mo	3	...
Kalamazoo, Mich	32	25
Kankakee, Ill	2	2
Kansas City, Kans	28	...
Kansas City, Mo	107	77
Kearny, N. J	9	3
Kewanee, Ill	...	5
Kokomo, Ind	...	1
La Fayette, Ind	2	6
Lake Charles, La	12	...
Lancaster, Ohio	...	3
La Salle, Ill	8	1
Lawrence, Kans	6	3
Lawrence, Mass	11	10
Leominster, Mass	6	6
Lexington, Ky	...	5
Lima, Ohio	17	16
Lincoln, Nebr	20	8
Lincoln, R. I	1	...

PNEUMONIA (ALL FORMS)—Continued.

City Reports for Week Ended Feb. 14, 1920—Continued.

Place.	Cases.	Deaths.
Little Rock, Ark	41	.....
Lockport, N. Y	3	1
Logansport, Ind	.....	2
Lorain, Ohio	10	10
Los Angeles, Calif	139	76
Lousiville, Ky	44	47
Lowell, Mass	19	10
Ludington, Mich	4	.....
Lynchburg, Va	.....	2
Lynn, Mass	12	11
Malden, Mass	10	6
Manchester, Conn	10	2
Manchester, N. H	6	6
Mankato, Minn	.....	2
Marion, Ind	1	3
Mason City, Iowa	.....	18
Mattoon, Ill	6	2
Medford, Mass	.....	5
Melrose, Mass	2	1
Memphis, Tenn	.....	41
Meriden, Conn	9	3
Methuen, Mass	.....	3
Milwaukee, Wis	.....	101
Minneapolis, Minn	.....	30
Mishawaka, Ind	.....	3
Missoula, Mont	.....	1
Mobile, Ala	.....	4
Monmouth, Ill	.....	3
Montgomery, Ala	2	2
Morgantown, W. Va	20	10
Morristown, N. J	7	2
Moundsville, W. Va	8	5
Mount Vernon, N. Y	29	11
Muncie, Ind	.....	7
Muscatine, Iowa	4	14
Nashua, N. H	24	8
Nashville, Tenn	1	13
New Britain, Conn	41	7
New Brunswick, N. J	5	.....
Newburyport, Mass	2	1
New Castle, Ind	.....	8
New Haven, Conn	.....	23
New Orleans, La	29	45
New Philadelphia, Ohio	3	.....
Newport, R. I	36	3
Newton, Mass	11	5
New York, N. Y	3,306	1,065
Niagara Falls, N. Y	27	5
Norfolk, Va	30	47
North Adams, Mass	.....	9
Northampton, Mass	3	2
North Attleboro, Mass	.....	1
North Little Rock, Ark	1	.....
North Tonawanda, N. Y	12	2
Norwalk, Conn	1	10
Norwich, Conn	16	.....
Norwood, Ohio	.....	1
Oak Park, Ill	5	1
Oklahoma City, Okla	2	15
Olean, N. Y	10	3
Omaha, Nebr	.....	34
Orange, N. J	26	14
Paducah, Ky	8	.....
Parkersburg, W. Va	.....	5
Parsons, Kans	4	.....
Pasadena, Calif	14	4
Passaic, N. J	36	17
Paterson, N. J	73	.....
Pawtucket, R. I	19	7
Peekskill, N. Y	.....	2
Peoria, Ill	22	24
Perth Amboy, N. J	9	10
Petersburg, Va	.....	6
Philadelphia, Pa	526	364
Phillipsburg, N. J	.....	2
Piqua, Ohio	18	4
Pittsfield, Mass	5	2
Plainfield, N. J	20	4
Plattsburgh, N. Y	.....	2
Plymouth, Mass	.....	1
Pontiac, Mich	35	23
Port Chester, N. Y	12	2
Port Huron, Mich	20	14
Portland, Me	14	17
Portland, Oreg	.....	28
Portsmouth, N. H	1	.....
Portsmouth, Va	60	19
Poughkeepsie, N. Y	11	7
Providence, R. I	.....	58
Provo, Utah	20	8
Pueblo, Colo	2	24
Quincy, Ill	10	10
Quincy, Mass	8	4
Rahway, N. J	.....	1
Raleigh, N. C	25	12
Redlands, Calif	2	.....
Reno, Nev	5	5
Richmond, Ind	6	6
Richmond, Va	2	28
Riverside, Calif	5	2
Roanoke, Va	74	.....
Rochester, N. Y	59	31
Rock Island, Ill	18	9
Rocky Mount, N. C	.....	3
Rome, Ga	3	7
Rutland, Vt	2	6
Sacramento, Calif	5	5
St. Cloud, Minn	6	.....
St. Joseph, Mo	41	32
St. Paul, Minn	2	18
Salem, Mass	39	4
Salem, Oreg	.....	1
Salt Lake City, Utah	.....	21
San Diego, Calif	13	7
Sandusky, Ohio	14	5
Sanford, Me	.....	6
Saratoga Springs, N. Y	16	5
Sault Ste. Marie, Mich	10	6
Savannah, Ga	.....	11
Schenectady, N. Y	30	7
Sioux Falls, S. Dak	4	3
Somerville, Mass	15	9
South Bend, Ind	.....	2
Spartanburg, S. C	10	1
Springfield, Ill	.....	22
Springfield, Mass	22	4
Springfield, Mo	.....	14
Springfield, Ohio	.....	12
Stamford, Conn	1	.....
Staunton, Va	.....	1
Stillwater, Minn	.....	1
Stockton, Calif	2	16
Syracuse, N. Y	23	53
Taunton, Mass	4	5
Terre Haute, Ind	.....	7
Tiffin, Ohio	1	3
Toledo, Ohio	3	31
Topeka, Kans	22	3
Traverse City, Mich	.....	1
Trenton, N. J	40	24
Troy, N. Y	68	30
Vallejo, Calif	.....	11
Waco, Tex	3	10
Waltham, Mass	22	10
Washington, D. C	.....	58
Waterbury, Conn	15	.....
Watertown, Mass	2	2
Watertown, N. Y	.....	4
Wausau, Wis	.....	9
West Hoboken, N. J	8	5
West New York, N. J	2	6
Wheeling, W. Va	4	13
White Plains, N. Y	12	2
Wichita, Kans	52	24
Wilmington, Del	.....	16
Winchester, Mass	5	1
Winston-Salem, N. C	143	12
Winthrop, Mass	8	4
Woburn, Mass	.....	1
Worcester, Mass	14	11
Yonkers, N. Y	45	19
Zanesville, Ohio	6	4

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for January, 1920.

Place.	New cases reported.
Connecticut:	
New Haven County—	
Ansonia	1
Milford	1
Total	2
Kansas:	
Bourbon County—	
Bronson	1
Nemaha County—	
Onaga	1
Wyandotte County—	
Kansas City	1
Total	3
Mississippi:	
Carroll County	1
De Soto County	1
Leflore County	1
Mississippi—Continued.	
Lincoln County	1
Scott County	1
Smith County	1
Tallahatchie	2
Tishomingo County	1
Yalobusha County	1
Total	10
North Carolina:	
Cumberland County	1
Martin County	1
Pitt County	1
Rockingham County	1
Total	4
Washington:	
Pacific County	1

City Reports for Week Ended Feb. 14, 1920.

Place.	Cases.	Deaths.
Ashtabula, Ohio	1	1
Barberton, Ohio	1	.....
Lowell, Mass	1	1
Lynn, Mass	1	.....
New York, N. Y	1	.....
Philadelphia, Pa	2	.....

RABIES IN ANIMALS.

Cincinnati, Ohio, Week Ended Feb. 14, 1920.

During the week ended February 14, 1920, one case of rabies in animals was reported at Cincinnati, Ohio.

RABIES IN MAN.

Mississippi Report for January, 1920.

During January, 1920, one case of rabies in man was reported in Mississippi.

SCARLET FEVER.

See Telegraphic weekly reports from States, p. 539; Monthly summaries by States, p. 543; and Weekly reports from cities, p. 563.

SMALLPOX.

Kansas Report for January, 1920—Vaccination Histories.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Kansas:						
Anderson County—						
Kincaid	1					1
Atchison County—						
Atchison	2					2
Barton County—						
Hoisington	2				2	
Redwing	1				1	
Bourbon County—						
Fort Scott	1				1	
Brown County—						
Willis	3					3
Horton	2					2
Reserve	1				1	
Pottawatomie	1				1	
Hamlin	1				1	
Hiawatha	1				1	
Butler County—						
Oil Hill	5				5	
Eldorado (R. F. D.)	1				1	
Augusta	1					1
Eldorado	20		1		6	13
Chase County—						
Cottonwood Falls	2				2	
Chautauqua County—						
Elgin	5				1	4
Hewins	1					1
Cherokee County—						
Columbus	1				1	
Cheyenne County—						
St. Francis	2					2
Cloud County—						
Miltonvale	6		1	1	2	2
Concordia	2					2
Coffey County—						
Lebo	1				1	
Cowley County—						
Douglas	1					1
Arkansas City	2				2	
Crawford County—						
Frontenac	1				1	
Girard (R. F. D.)	1					1
Arma	1					1
Pittsburg	3					3
Dickinson County—						
Abilene	1					1
Solomon	1					1
Douglas County—						
Lawrence (R. F. D.)	1				1	
Baldwin	3		2	1		
Clinton	3		1		2	
Vinland	1					1
Lawrence	1				1	
Finney County—						
Garden City	17			2	11	4
Geary County—						
Junction (R. F. D.)	1				1	
Graham County—						
Hill City (4 R. F. D.)	12				4	8
Logan (R. F. D. 1)	2				2	
Gray County—						
Cimarron (1 R. F. D.)	5		2		1	2
Jackson County—						
Soldier	1				1	
Jewell County—						
Formoso	37		2		5	30
Esbon	3				1	2
Montrose	1					1
Jewell	2					2
Johnson County—						
Spring Hill	3					3
Mayetta	1				1	

SMALLPOX—Continued.

Kansas Report for January, 1920—Vaccination Histories—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Kansas—Continued.						
Labette County—						
Parsons	1				1	
Leavenworth County—						
Tonganoxic	7					7
Reno	1		1			
Leavenworth	6			1		5
Lincoln County—						
Lincoln	1				1	
Marshall County—						
Waterville	2				2	
Blue Rapids	1				1	
Irving	1		1			
Marysville	6					6
Montgomery County—						
Coffeyville	1				1	
Morton County—						
Elkhart	1					1
Neosho County—						
St. Paul	2				2	
Sunnyside	1				1	
Norton County—						
Prairie View	13				10	3
Clayton	7				6	1
Norton	8				6	2
Almena	6		1		5	
Lenora	1				1	
Logan	2					2
Osage County—						
Osage	5				5	
Barclay	1				1	
Ottawa County—						
Wells	4				2	2
Phillips County—						
Speed	6				5	1
Prairie View	4		1		1	2
Logan	8				7	1
Agra (R. F. D.)	9				2	7
Woodruff	10		2		7	1
Phillipsburg	9				4	5
Rawlins County—						
McDonald	4				4	
Beardsley	1				5	
Benkelman (Nebr.)	4				4	
Riley County—						
Manhattan	2				1	1
Rooks County—						
Palco	6				6	
Webster	1					1
Rush County—						
McCracken	1					1
Scott County—						
Scott City	1				1	
Sedgwick County—						
Wichita	21				21	
Seward County—						
Plains	2				2	
Shawnee County—						
Topeka (R. F. D.)	1					1
Topeka	5					5
Sheridan County—						
Grainfield	3				2	1
Sherman County—						
Goodland	2				2	
Kanorado	3					3
Smith County—						
Smith Center	9					9
Bellaire	2					2
Lebanon	4					4
Kensington	1					1
Reamsville	1				1	

SMALLPOX—Continued.

Kansas Report for January, 1920—Vaccination Histories—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Kansas—Continued.						
Sumner County—						
Belle Plain	1		1			
Corbin	2		1		1	
Mulvane	2				2	
Thomas County—						
Colby	1				1	
Trego County—						
Wakeeney	13				13	
Washington County—						
Greenleaf	1				1	
Wilson County—						
Neodesha	2			2		
Buffalo	1			1		
Wyandotte County—						
Kansas City	11				4	7
Total	400		17	8	199	176

State Reports for January, 1920.

Place.	Cases.	Deaths.
Connecticut:		
New Haven County—		
Waterbury	2	
Idaho:		
Bannock County—		
North Pocatello	2	
Bingham County	33	
Blaine County	2	
Bonneville County	19	
Canyon County	18	
Nampa	19	
Caribou County	1	
Latah County	3	
Madison County	2	
Minidoka County	27	
Power County	3	
Valley County	9	
Total	138	
Indiana:		
Allen County	2	
Bartholomew County	11	
Boone County	2	
Carroll County	4	
Cass County	2	
Clinton County	3	
Daviess County	4	
Dearborn County	31	
Delaware County	3	
Dubois County	5	
Elkhart County	2	
Fountain County	38	
Franklin County	5	
Fulton County	4	
Gibson County	20	
Grant County	27	
Greene County	1	
Hancock County	4	
Hendricks County	2	
Howard County	90	
Huntington County	18	
Jackson County	59	
Jennings County	4	
Indiana—Continued.		
Knox County	2	
Lagrange County	2	
Lake County	54	
Laporte County	10	
Lawrence County	2	
Madison County	8	
Marion County	100	
Martin County	13	
Miami County	13	
Monroe County	1	
Montgomery County	2	
Orange County	2	
Porter County	6	
Posey County	6	
Ripley County	5	
Rush County	5	
Shelby County	4	
Spencer County	10	
St. Joseph County	37	
Sullivan County	17	
Tippecanoe County	35	
Tipton County	3	
Vigo County	18	
Wabash County	7	
Warren County	15	
Warrick County	19	
Wayne County	6	
Total	763	
Mississippi:		
Adams County	4	
Alcorn County	1	
Bolivar County	52	
Calhoun County	1	
Chickasaw County	1	
Clay County	4	
Coahoma County	20	
Copiah County	9	
De Soto County	8	
Greene County	3	
Grenada County	6	
Harrison County	7	
Hinds County	6	

SMALLPOX—Continued.

State Reports for January, 1920—Continued.

Place.	Cases.	Deaths.
Mississippi—Continued.		
Holmes County	21	
Jefferson Davis County	1	
Jones County	1	
Lauderdale County	8	
Leflore County	30	
Lowndes County	2	
Madison County	7	
Marion County	2	
Marshall County	3	
Neshoba County	2	
Oktibbeha County	11	
Panola County	3	
Pearl River County	6	
Pike County	5	
Pontotoc County	3	
Prentiss County	2	
Sharkey County	10	
Stone County	3	
Sunflower County	101	
Tallahatchie County	46	
Tunica County	3	
Warren County	19	
Washington County	5	
Yalobusha County	1	
Total	417	
North Carolina:		
Alexander County	3	
Anson County	1	
Beaufort County	14	
Buncombe County	5	
Cabarrus County	2	
Caldwell County	1	
Catawba County	6	
Chatham County	2	
Cherokee County	1	
Chowan County	2	
Cleveland County	5	
Cumberland County	5	
Duplin County	4	
Durham County	5	
Edgecombe County	6	
Forsyth County	10	
Franklin County	3	
Gaston County	4	
Gates County	8	
Granville County	112	
Greene County	2	
Guilford County	7	
Harnett County	1	
Haywood County	4	
Henderson County	4	
Hertford County	2	
Iredell County	6	
Jackson County	1	
Johnston County	1	
Lenoir County	14	
Madison County	6	
Martin County	18	
McDowell County	17	
Nash County	12	
New Hanover County	10	
Pasquotank County	3	
Pender County	1	
Perquimans County	4	
Person County	4	
Pitt County	108	
Robeson County	7	
Rockingham County	68	
Rutherford County	65	
Scotland County	2	
Surry County	11	
Vance County	10	
Wake County	1	
Warren County	1	
Washington County	17	
Wayne County	4	
Wilkes County	22	
Yadkin County	3	
Yancey County	6	
Total	641	
North Dakota:		
Bismarck	1	
Mandan	1	
Mountrail County	1	
Cass County	1	
Burke County	1	
Fargo	3	
McHenry County	1	
Total	9	
South Carolina:		
Anderson County	10	
Charleston County	6	
Cherokee County	210	
Chester County	2	
Clarendon County	3	
Greenville County	8	
Greenwood County	3	
Laurens County	2	
Oconee County	1	
Pickens County	3	
Richland County	1	
Spartanburg County	49	
York County	4	
Total	302	
Washington:		
Adams County	11	
Othello	8	
Ritzville	23	
Asotin County—		
Clarkston	1	
Chelan County	4	
Wenatchee	5	
Clallam County	2	
Port Angeles	3	
Clarke County	15	
Camas	3	
Vancouver	10	
Washougal	4	
Columbia County	4	
Starbuck	3	
Cowlitz County	8	
Kelso	15	
Woodland	1	
Douglas County	1	
Ferry County	3	
Franklin County	10	
Pasco	7	
Garfield County	2	
Grant County	4	
Hartline	1	
Grays Harbor County	9	
Aberdeen	2	
Cosmopolis	2	
Oakville	2	
Jefferson County	9	
Port Townsend	2	
King County	15	
Seattle	96	
Kitsap County	2	
Kittitas County	27	
Lewis County	7	
Centralia	15	
Pe Ell	1	
Toledo	2	
Lincoln County	11	
Odessa	6	
Mason County	1	
Okanogan County	1	
Pacific County	1	
Raymond	1	
South Bend	1	

SMALLPOX—Continued.

State Reports for January, 1920—Continued.

Place.	Cases.	Deaths.
Washington—Continued.		
Pend Oreille County—		
Ione	3	
Metaline Falls	2	
Pierce County—		
Tacoma	37	
Skagit County	17	
Mount Vernon	7	
Sedro Woolley	6	
Snohomish County	3	
Everett	11	
Granite Falls	8	
Stanwood	1	
Spokane County	22	
Rockford	54	
Deer Park	5	
Medical Lake	8	
Hillyard	4	
Spokane	240	
Stevens County	1	
Thurston County	4	
Olympia	6	
Tenino	10	
Wahkiakum County	3	
Walla Walla County	21	
Walla Walla	16	
Waitsburg	8	
Whatcom County—		
Bellingham	50	
Washington—Continued.		
Whatcom County—Con.		
Ferndale	2	
Sumas	1	
Whitman County—		
Tekoa	1	
Malden	4	
Yakima County	56	
Grandview	1	
Toppenish	27	
Granger	5	
Mabton	5	
Wapato	5	
Total	1,015	
Wyoming:		
Albany County	25	
Campbell County	4	
Converse County	15	
Goshen County	92	
Laramie County	3	
Lincoln County	2	
Natrona County	2	
Niobrara County	7	
Sheridan County	2	
Uinta County	2	
Total	154	

City Reports for Week Ended Feb. 14, 1920.

Place.	Cases.	Deaths.
Akron, Ohio	16	
Alameda, Calif	1	
Alexandria, Va	2	
Ann Arbor, Mich	2	
Atlanta, Ga	7	
Birmingham, Ala	6	
Bluefield, W. Va	7	
Boise, Idaho	6	
Buffalo, N. Y	5	
Canton, Ohio	2	
Cedar Rapids, Iowa	1	
Charleston, S. C	2	
Charleston, W. Va	1	
Cheyenne, Wyo	1	
Chicago, Ill	4	
Cleveland, Ohio	3	
Cumberland, Md	1	
Dallas, Tex	34	
Danville, Ill	1	
Davenport, Iowa	12	
Dayton, Ohio	1	
Denver, Colo	42	
Des Moines, Iowa	2	
Dubuque, Iowa	5	
Duluth, Minn	8	
El Paso, Tex	3	1
Evansville, Ind	4	
Flint, Mich	3	
Fort Dodge, Iowa	1	
Galesburg, Ill	1	
Gary, Ind	2	
Granite City, Ill	1	
Great Falls, Mont	6	
Hammond, Ind	1	
Hot Springs, Ark	1	
Huntington, Ind	7	
Huntington, W. Va	4	
Indianapolis, Ind	10	
Janesville, Wis	1	
Kansas City, Kans	3	
Kansas City, Mo	8	
Kewanee, Ill	2	
Kokomo, Ind	15	
La Crosse, Wis	1	
Lexington, Ky	1	
Lincoln, Nebr	6	
Logansport, Ind	1	
Los Angeles, Calif	7	
Ludington, Mich	2	
Marion, Ohio	3	
Marshalltown, Iowa	6	
Mason City, Iowa	2	
Milwaukee, Wis	22	
Minneapolis, Minn	31	
Mishawaka, Ind	1	
Mobile, Ala	8	
Monmouth, Ill	1	
Muncie, Ind	6	
New Orleans, La	44	1
New York, N. Y	1	
Norfolk, Va	3	
Oklahoma City, Okla	3	
Omaha, Nebr	10	
Paducah, Ky	7	
Parsons, Kans	3	
Peoria, Ill	1	
Pontiac, Mich	5	
Portland, Oreg	47	
Portsmouth, Va	2	
Pueblo, Colo	1	
Quincy, Ill	1	
Riverside, Calif	1	
Rock Island, Ill	3	
St. Cloud, Minn	1	
St. Joseph, Mo	29	
St. Louis, Mo	8	
St. Paul, Minn	12	
Salem, Oreg	4	
Salt Lake City, Utah	4	
San Bernardino, Calif	2	
San Diego, Calif	2	
South Bend, Ind	6	
Superior, Wis	3	
Terre Haute, Ind	2	
Toledo, Ohio	1	
Vallejo, Calif	1	
Waco, Tex	1	
Washington, D. C	2	
Wichita, Kans	8	
Winston-Salem, N. C	1	

SMALLPOX—Continued.

Vaccinations on Canadian Border, 1920.

Reports from Public Health Service officers on the Canadian border show that vaccinations were performed at points of entry to the United States from February 19 to February 25, 1920, inclusive, as follows:

	Vaccinations.
Buffalo	394
Detroit [1]	468
Niagara Falls	327
Ogdensburg [2]	29
Port Huron	383
Sault Ste. Marie [3]	41

[1] No report for Feb. 22, 23, and 24.
[2] No report for Feb. 21.
[3] No report for Feb. 24 and 25.

TETANUS.

Rutland, Vt., and Savannah, Ga.

During the week ended February 14, 1920, one death from tetanus was reported at Rutland, Vt., and one was reported at Savannah, Ga.

TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 539, and Weekly reports from cities, p. 563.

TYPHOID FEVER.

State Reports for January, 1920.

Place.	New cases reported.
Connecticut:	
Fairfield County—	
Bridgeport	1
Danbury	1
Norwalk	1
Hartford County—	
East Hartford	1
Litchfield County—	
Plymouth	1
New Haven County—	
Naugatuck	1
Orange	2
Waterbury	2
New London County—	
New London	1
Total	11
Idaho:	
Bingham County	1
Indiana:	
Daviess County	1
Dearborn County	1
Dekalb County	1
Delaware County	1
Elkhart County	7
Lake County	10
Laporte County	1
Total	22

Place.	New cases reported.
Kansas:	
Butler County—	
Augusta	3
El Dorado	2
Cherokee County—	
Baxter	1
Galena	2
Cheyenne County—	
McDonald	1
Decatur County—	
Oberlin	1
Ramona	1
Geary County—	
Junction City	2
Marion County—	
Marion (1 R.F.D.)	2
Miami County—	
Parker	4
Montgomery County—	
Bolton	2
Coffeyville (1 R.F.D.)	6
Morris County—	
Council Grove	1
Osage County—	
Melvern	1
Pratt County—	
Byers	1
Republic County—	
Belleville	3
Rice County—	
Bushton	1

TYPHOID FEVER—Continued.

State Reports for January, 1920—Continued.

Place.	New cases reported.
Kansas—Continued.	
Sedgewick County—	
Wichita	1
Smith County—	
Lebanon	1
Sumner County—	
Wellington	1
Wilson County—	
Middletown	2
Wyandotte County—	
Kansas City (R. F. D.)	1
Total	40
Mississippi:	
Amite County	2
Attala County	1
Choctaw County	1
Clarke County	1
Clay County	1
Copiah County	4
De Soto County	3
Forest County	1
Harrison County	2
Hinds County	1
Holmes County	2
Jackson County	1
Jones County	3
Lafayette County	1
Lauderdale County	2
Lee County	6
Lincoln County	4
Madison County	5
Marion County	2
Noxubee County	1
Panola County	6
Pike County	1
Pontotoc County	2
Prentiss County	3
Rankin County	1
Scott County	2
Sharkey County	1
Simpson County	1
Smith County	4
Stone County	1
Sunflower County	3
Tallahatchie County	1
Tate County	1
Tishomingo County	2
Warren County	1
Washington County	1
Wayne County	1
Webster County	1
Winston County	2
Yazoo County	1
Total	80
North Carolina:	
Alexander County	3
Anson County	1
Buncombe County	3
Cleveland County	1
Cumberland County	1
Currituck County	1
Forsyth County	4
Gaston County	3
Graham County	1
Greene County	1
Johnston County	2

Place.	New cases reported.
North Carolina—Continued.	
Lincoln County	2
Madison County	1
McDowell County	1
Onslow County	1
Pasquotank County	2
Pender County	1
Randolph County	2
Rockingham County	1
Rowan County	2
Rutherford County	2
Surry County	1
Wake County	1
Wayne County	1
Yadkin County	1
Yancey County	4
Total	44
North Dakota:	
Steele County	1
Burke County	1
Fargo	2
Hettinger County	3
Ward County	1
McLean County	1
Cooperstown	1
Grand Forks	1
Mandan	5
Dunn County	1
Total	17
South Carolina:	
Charleston County	2
Clarendon County	1
Greenville County	1
Marion County	1
Total	5
Washington:	
Chelan County	3
Wenatchee	5
Garfield County	1
King County	2
Kent	2
Seattle	1
Pierce County—	
Buckley	2
Tacoma	1
Skagit County	1
Snohomish County—	
Stanwood	1
Spokane County—	
Spokane	13
Thurston County	1
Walla Walla County	1
Total	34
Wyoming:	
Lincoln County	1
Sheridan County	2
Natrona County	3
Uinta County	1
Niobrara County	1
Total	8

TYPHOID FEVER—Continued.

City Reports for Week Ended Feb. 14, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alexandria, La	1		Independence, Mo	1	
Arlington, Mass	1		Kankakee, Ill	1	1
Atlanta, Ga	1		Kansas City, Kans	1	
Baltimore, Md	1		Los Angeles, Calif	1	
Bluefield, W. Va	2		Louisville, Ky	1	
Buffalo, N. Y		2	Lynn, Mass	1	
Canton, Ohio	1		Memphis, Tenn	1	
Chicago, Ill	2		Mobile, Ala	1	1
Cincinnati, Ohio	1		New Bedford, Mass	1	
Cleveland, Ohio	1		New York, N. Y	5	1
Corpus Christi, Tex	1		Niagara Falls, N. Y	1	
Dallas, Tex	5	1	Pasadena, Calif	2	
Davenport, Iowa	1		Philadelphia, Pa		2
Dayton, Ohio	1		Richmond, Va	1	1
Detroit, Mich	1	2	Sacramento, Calif		1
El Paso, Tex		1	St. Louis, Mo	1	
Fort Worth, Tex	1	1	Salt Lake City, Utah	1	
Grand Rapids, Mich	1		Wheeling, W. Va	1	
Hammond, Ind		1			

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Feb. 14, 1920.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Adams, Mass	14,406	3			1					
Akron, Ohio	93,604	93	8		126		127		1	
Alameda, Calif	28,433	17	4		44					
Albany, N. Y	106,632		1		2		7		5	
Alexandria, La	16,232	4							1	
Alexandria, Va	17,939	6								
Alliance, Ohio	19,581	15			20		2			1
Alpena, Mich	13,365				2					
Alton, Ill	23,783	27					5			1
Amesbury, Mass	10,200	0			2					
Anaconda, Mont	10,631	3					1		1	
Anderson, Ind	24,230	21								
Ann Arbor, Mich	15,041	32	1		7					
Anniston, Ala	14,326				1		3			
Ansonia, Conn	16,954	11			22		1			1
Arlington, Mass	13,073	13			8		5			
Asbury Park, N. J	14,629	7	1		2					
Ashland, Ky	12,195						1			
Ashtabula, Ohio	22,008	13								
Atlanta, Ga	196,144	129	1		9		3		6	5
Atlantic City, N. J	59,515	20	3		80	1	2		1	
Attleboro, Mass	19,776	7	4				1			2
Austin, Tex	35,612	25								3
Baltimore, Md	594,637	514	36	4	126		59		9	35
Bangor, Me	26,958						2		8	
Barberton, Ohio	14,187	22	1				3			
Barre, Vt	12,401				3		2			
Bayonne, N. J	72,204		3		9		2		3	
Beatrice, Nebr	10,437	11	1	1						
Beaumont, Tex	28,851	10								
Bedford, Ind	10,613	3			6				1	1
Belleville, Ill	21,154		1						1	
Benton Harbor, Mich	11,099				4					
Berkeley, Calif	60,427	23	3		15					
Berlin, N. H	13,892	5								
Beverly, Mass	22,128	18					1			
Billings, Mont	15,123	9			4					
Birmingham, Ala	189,716	69	2		9		12	1	2	9
Bloomfield, N. J	19,013	6			5					
Bloomington, Ill	27,462	26	1				1		4	
Bloomington, Ind	11,661	3			7					
Bluefield, W. Va	16,123	3								
Boise, Idaho	35,951	4								

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Feb. 14, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Boston, Mass.	767,813	508	45	7	326	1	59	2	56	31
Brazil, Ind.	10,472	3	.....	.....	3	.....	2	.....	.....	.....
Bridgeport, Conn.	124,724	80	10	5	21	.....	1	.....	.....	4
Bristol, Conn.	16,318	7	1	.....	.....	.....	.....	.....	.....	1
Brockton, Mass.	69,152	38	3	.....	47	.....	9	.....	1	3
Brookline, Mass.	33,526	20	.....	.....	2	.....	.....	.....	1	2
Brunswick, Ga.	10,984	6	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo, N. Y.	475,781	332	73	15	58	2	21	.....	13	12
Burlington, Iowa.	25,144	19	.....	.....	.....	.....	5	.....	.....	.....
Burlington, Vt.	21,802	17	.....	.....	.....	.....	.....	.....	1	1
Butte, Mont.	44,057	42	.....	.....	.....	.....	3	.....	.....	4
Cadillac, Mich.	10,158	1	.....	.....	.....	.....	.....	.....	.....	.....
Cairo, Ill.	15,995	9	.....	.....	4	.....	.....	.....	.....	2
Cambridge, Mass.	114,293	71	18	1	7	.....	7	1	4	5
Canton, Ill.	13,674	12	.....	.....	.....	.....	.....	.....	.....	.....
Canton, Ohio.	62,566	35	1	.....	6	.....	10	1	.....	2
Centralia, Ill.	11,838	7	.....	.....	.....	.....	1	.....	.....	.....
Chanute, Kans.	12,968	6	.....	.....	.....	.....	.....	.....	.....	2
Charleston, S. C.	61,041	50	2	.....	2	1	.....	.....	.....	3
Charleston, W. Va.	31,060	2	.....	.....	.....	.....	.....	.....	.....	.....
Charlotte, N. C.	40,759	16	.....	.....	.....	.....	2	.....	2	3
Chattanooga, Tenn.	61,575	33	3	.....	.....	.....	.....	.....	.....	2
Chelsea, Mass.	48,405	22	5	1	3	.....	2	.....	2	1
Cheyenne, Wyo.	[1] 11,320	4	.....	.....	4	.....	.....	.....	1	1
Chicago, Ill.	2,547,201	1,226	119	20	241	4	340	8	200	65
Chicopee, Mass.	29,950	6	3	1	2	.....	1	.....	.....	.....
Cincinnati, Ohio.	414,248	177	14	1	255	2	46	1	19	15
Cleveland, Ohio.	692,259	487	22	4	156	4	42	.....	21	28
Clinton, Mass.	[1] 13,075	10	4	.....	.....	.....	.....	.....	.....	2
Coffeyville, Kans.	18,331	5	.....	.....	1	.....	.....	.....	.....	.....
Columbus, Ga.	26,306	28	.....	.....	.....	.....	1	.....	1	1
Columbus, Ohio.	220,135	180	2	.....	64	.....	14	.....	4	5
Concord, N. H.	22,858	20	.....	.....	52	.....	.....	.....	.....	.....
Corpus Christi, Tex.	10,789	6	.....	.....	.....	.....	.....	.....	1	.....
Cortland, N. Y.	13,321	14	1	1	.....	.....	4	.....	.....	.....
Coshocton, Ohio.	11,887	.....	.....	.....	2	.....	.....	.....	.....	.....
Council Bluffs, Iowa.	31,838	18	.....	.....	6	.....	5	.....	.....	.....
Covington, Ky.	59,623	3	1	.....	25	1	1	.....	.....	.....
Cranston, R. I.	26,773	14	.....	.....	7	.....	5	.....	2	2
Cumberland, Md.	26,686	24	.....	.....	.....	.....	1	.....	.....	2
Dallas, Tex.	129,738	93	8	.....	3	.....	2	.....	15	6
Danvers, Mass.	10,037	.....	.....	.....	.....	.....	6	.....	1	.....
Danville, Ill.	32,969	32	.....	.....	100	.....	.....	.....	.....	.....
Davenport, Iowa.	49,618	.....	1	.....	2	.....	.....	.....	.....	.....
Dayton, Ohio.	128,939	77	1	.....	31	.....	5	2	3	.....
Decatur, Ill.	41,483	32	2	.....	53	.....	.....	.....	.....	3
Dedham, Mass.	10,618	6	.....	.....	4	.....	.....	.....	.....	.....
Denver, Colo.	268,439	260	7	1	33	1	6	.....	.....	32
Des Moines, Iowa.	104,052	.....	3	.....	.....	.....	4	.....	.....	.....
Detroit, Mich.	619,648	809	94	14	107	4	66	7	34	23
Dover, N. H.	13,276	7	.....	.....	.....	.....	2	.....	.....	.....
Dubuque, Iowa.	40,096	.....	.....	.....	.....	.....	2	.....	.....	.....
Duluth, Minn.	97,077	51	7	1	2	.....	1	.....	.....	2
Durham, N. C.	26,160	9	.....	.....	.....	.....	.....	.....	.....	.....
East Chicago, Ind.	30,286	15	.....	.....	.....	.....	.....	.....	.....	2
East Cleveland, Ohio.	13,864	.....	1	.....	50	.....	.....	.....	.....	.....
Easthampton, Mass.	10,656	2	.....	.....	.....	.....	.....	.....	.....	.....
East Orange, N. J.	43,761	16	.....	1	36	.....	.....	.....	.....	.....
East Providence, R. I.	18,485	.....	3	.....	.....	.....	.....	.....	.....	.....
East St. Louis, Ill.	77,312	47	.....	.....	44	1	.....	.....	.....	1
Elgin, Ill.	28,362	11	3	1	1	.....	1	.....	1	.....
Elizabeth, N. J.	88,830	46	.....	.....	86	2	8	.....	5	.....
Elkhart, Ind.	22,273	13	1	.....	1	.....	4	.....	.....	.....
El Paso, Tex.	69,149	61	2	.....	2	.....	2	.....	.....	11
Elwood, Ind.	11,028	.....	.....	.....	10	.....	.....	.....	.....	.....
Englewood, N. J.	12,603	6	.....	.....	1	.....	.....	.....	.....	.....
Eureka, Calif.	15,142	8	.....	.....	.....	.....	3	.....	.....	.....
Evanston, Ill.	29,304	22	4	.....	2	.....	7	.....	1	.....
Evansville, Ind.	76,981	14	4	.....	2	.....	3	.....	2	1
Everett, Mass.	40,160	25	5	.....	5	.....	3	.....	.....	.....
Fairmont, W. Va.	16,111	.....	2	.....	.....	.....	2	.....	.....	.....

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Feb. 14, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Fall River, Mass	129,828	43	6	1	5	.....	1	.....	3	2
Findlay, Ohio	[1] 14,858	9	.....	.....	1	.....	1	.....	.....	.....
Flint, Mich	57,386	68	19	.....	.....	.....	6	.....	.....	4
Fort Dodge, Iowa	21,039	10	3	.....	.....	.....	1	.....	.....	.....
Fort Smith, Ark	29,390	.....	.....	.....	1	.....	.....	.....	.....	.....
Fort Worth, Tex	109,597	72	2	.....	.....	.....	1	.....	2	2
Fostoria, Ohio	10,959	9	.....	.....	14	.....	.....	.....	1	.....
Framingham, Mass	14,149	11	.....	.....	.....	.....	2	.....	.....	.....
Freeport, Ill	19,844	18	2	.....	.....	.....	3	1	.....	.....
Fremont, Nebr	10,080	5	.....	.....	.....	.....	.....	.....	.....	.....
Fremont, Ohio	11,034	9	.....	.....	1	.....	2	.....	.....	.....
Galesburg, Ill	24,629	24	.....	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex	42,650	23	.....	.....	.....	.....	.....	.....	2	.....
Gardner, Mass	17,534	6	.....	.....	.....	.....	.....	.....	2	2
Gary, Ind	56,000	25	3	.....	.....	.....	3	.....	.....	2
Geneva, N. Y	13,915	2	1	.....	.....	.....	2	.....	.....	.....
Glens Falls, N. Y	17,160	4	.....	.....	.....	.....	.....	.....	.....	.....
Grand Rapids, Mich	132,861	79	3	.....	45	.....	5	.....	2	1
Granite City, Ill	15,890	5	3	.....	11	.....	1	.....	.....	.....
Great Falls, Mont	[1] 13,948	8	1	.....	.....	.....	2	.....	2	.....
Greely, Colo	11,942	5	.....	.....	.....	.....	.....	.....	.....	.....
Greenfield, Mass	12,251	8	.....	.....	5	.....	.....	.....	.....	.....
Greensboro, N. C	20,171	8	.....	.....	.....	.....	.....	.....	.....	1
Greenwich, Conn	19,594	9	.....	.....	.....	.....	2	.....	.....	.....
Hackensack, N. J	17,412	11	.....	.....	13	.....	1	.....	1	.....
Hammond, Ind	27,016	30	3	1	14	.....	9	.....	.....	.....
Hartford, Conn	112,831	93	8	2	6	.....	8	.....	9	1
Haverhill, Mass	49,180	575	2	2	.....	.....	2	.....	3	3
Hibbing, Minn	17,550	.....	2	.....	.....	.....	.....	.....	.....	.....
Highland Park, Mich	33,859	22	6	.....	14	1	5	.....	2	1
Hoboken, N. J	78,324	32	2	1	7	.....	.....	.....	3	.....
Holland, Mich	12,459	7	.....	.....	.....	.....	.....	.....	.....	2
Holyoke, Mass	66,503	27	2	.....	9	.....	3	.....	3	2
Hot Springs, Ark	17,690	12	.....	.....	.....	.....	.....	.....	.....	1
Houston, Tex	116,878	69	10	.....	17	.....	1	.....	1	6
Huntington, Ind	10,982	5	.....	.....	.....	.....	.....	.....	.....	.....
Huntington, W. Va	47,686	28	2	.....	.....	.....	1	.....	.....	2
Hutchinson, Kans	21,461	.....	1	.....	1	.....	3	.....	.....	.....
Independence, Mo	11,964	26	.....	.....	.....	.....	.....	.....	.....	.....
Indianapolis, Ind	283,622	218	1	.....	75	.....	13	1	13	14
Ironwood, Mich	15,095	208	.....	.....	.....	.....	2	.....	.....	.....
Irvington, N. J	16,710	.....	.....	.....	3	.....	2	.....	.....	.....
Ishpeming, Mich	[1] 12,448	2	.....	.....	.....	.....	.....	.....	.....	.....
Ithaca, N. Y	16,017	14	.....	.....	1	.....	1	.....	.....	.....
Jamestown, N. Y	37,431	37	4	.....	1	.....	1	.....	.....	.....
Janesville, Wis	14,411	12	.....	.....	10	.....	.....	.....	.....	1
Jefferson City, Mo	13,712	8	.....	.....	.....	.....	.....	.....	.....	2
Jersey City, N. J	312,557	.....	13	.....	66	.....	1	.....	14	.....
Joplin, Mo	33,400	5	.....	.....	.....	.....	.....	.....	2	.....
Kalamazoo, Michigan	50,408	48	.....	.....	3	.....	.....	.....	3	1
Kankakee, Ill	14,270	10	.....	.....	.....	.....	2	.....	.....	1
Kansas City, Kans	102,096	.....	6	.....	36	.....	5	.....	9	.....
Kansas City, Mo	305,816	265	8	.....	63	3	16	1	9	5
Kearny, N. J	24,325	10	2	.....	8	.....	1	.....	3	.....
Kewanee, Ill	13,607	21	.....	.....	1	.....	.....	.....	.....	.....
Knoxville, Tenn	59,112	.....	4	3	122	2	.....	.....	2	2
Kokomo, Ind	21,929	18	1	.....	4	.....	4	.....	.....	1
La Crosse, Wis	31,833	.....	2	.....	3	.....	4	.....	.....	.....
La Fayette, Ind	21,481	13	1	.....	1	.....	1	.....	.....	1
Lake Charles, La	14,933	9	.....	.....	.....	.....	.....	.....	2	2
La Salle, Ill	12,332	11	.....	.....	1	.....	.....	.....	.....	.....
Laurel, Miss	12,313	.....	.....	1	.....	.....	.....	.....	.....	.....
Lawrence, Kans	13,477	8	.....	.....	.....	.....	1	.....	.....	.....
Lawrence, Mass	102,923	45	3	.....	5	.....	8	1	2	1
Leavenworth, Kans	[1] 19,363	17	1	.....	.....	.....	.....	.....	.....	.....
Leominster, Mass	21,365	16	.....	.....	1	.....	6	.....	1	.....
Lexington, Ky	41,997	26	.....	.....	4	.....	.....	.....	.....	3
Lima, Ohio	37,145	34	2	.....	11	.....	.....	.....	.....	1
Lincoln, Nebr	46,957	28	1	.....	18	.....	1	.....	.....	1
Little Rock, Ark	58,716	.....	1	.....	10	.....	2	.....	3	.....
Lockport, N. Y	20,028	7	.....	.....	.....	.....	1	.....	.....	.....

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Feb. 14, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Logansport, Ind	21,338	13	.....	.....	15	.....	8	.....	.....	1
Lorain, Ohio	38,266	.....	2	.....	.....	.....	2	.....	1	.....
Los Angeles, Calif	535,485	253	40	.....	29	.....	17	.....	60	26
Louisville, Ky	240,808	122	9	.....	3	1	8	.....	13	9
Lowell, Mass	114,366	48	1	.....	5	.....	2	1	3	4
Ludington, Mich	10,566	4	.....	.....	1	.....	.....	.....	.....	.....
Lynchburg, Va	33,497	26	1	.....	.....	.....	.....	.....	.....	3
Lynn, Mass	104,534	67	13	2	.....	.....	25	1	2	2
Malden, Mass	52,243	27	1	.....	2	.....	2	.....	.....	.....
Manchester, Conn	15,859	2	.....	.....	1	.....	2	.....	.....	.....
Manchester, N. H	79,607	31	5	1	5	.....	3	.....	5	1
Mankato, Minn	[1] 10,365	10	.....	.....	8	.....	1	.....	.....	1
Marion, Ind	19,923	12	1	.....	20	.....	1	.....	.....	.....
Marion, Ohio	24,129	.....	3	.....	.....	.....	1	.....	1	.....
Martinsburg, W. Va	12,984	.....	3	.....	.....	.....	.....	.....	.....	.....
Martins Ferry, Ohio	10,135	.....	1	.....	.....	.....	.....	.....	.....	.....
Mason City, Iowa	14,938	22	.....	.....	3	.....	.....	.....	.....	.....
Mattoon, Ill	12,764	.....	.....	.....	37	.....	.....	.....	.....	.....
Medford, Mass	26,681	23	3	.....	3	.....	4	.....	1	.....
Melrose, Mass	17,724	6	.....	.....	8	.....	4	.....	.....	.....
Memphis, Tenn	151,877	131	3	.....	.....	.....	7	.....	7	7
Meridian, Conn	29,431	.....	4	1	4	.....	8	.....	.....	.....
Methuen, Mass	14,320	9	.....	.....	.....	.....	2	.....	.....	.....
Middletown, Ohio	16,384	1	.....	.....	3	.....	.....	.....	.....	.....
Milwaukee, Wis	445,008	236	10	.....	39	.....	27	.....	13	.....
Minneapolis, Minn	373,448	216	8	.....	40	.....	10	1	17	6
Mishawaka, Ind	17,083	6	.....	.....	.....	.....	1	.....	.....	.....
Missoula, Mont	19,075	5	.....	.....	.....	.....	.....	.....	1	.....
Mobile, Ala	59,201	41	2	.....	.....	.....	.....	.....	.....	4
Monmouth, Ill	10,346	9	.....	.....	.....	.....	.....	.....	.....	1
Montgomery, Ala	44,039	19	2	.....	1	.....	4	.....	2	2
Morgantown, W. Va	14,444	13	.....	.....	3	.....	2	.....	1	1
Morristown, N. J	13,410	6	.....	.....	.....	.....	.....	.....	.....	.....
Moundsville, W. Va	11,513	7	1	.....	4	.....	1	.....	.....	.....
Mount Vernon, Ill	10,043	11	3	.....	43	.....	1	.....	.....	.....
Muncie, Ind	25,653	21	2	.....	50	.....	3	.....	.....	.....
Muscatine, Iowa	17,713	23	.....	.....	.....	.....	.....	.....	.....	.....
Muskogee, Okla	47,173	.....	.....	.....	1	.....	.....	.....	.....	.....
Nashua, N. H	27,541	9	.....	.....	.....	.....	7	.....	.....	.....
Nashville, Tenn	118,136	63	2	.....	4	.....	3	.....	.....	3
Newark, N. J	418,789	257	32	4	162	4	24	.....	42	17
New Bedford, Mass	121,622	70	3	1	15	.....	7	.....	11	1
New Britain, Conn	55,385	36	1	.....	2	.....	6	.....	.....	1
New Brunswick, N. J	25,855	.....	1	.....	.....	.....	.....	.....	.....	.....
Newburyport, Mass	15,291	4	1	.....	.....	.....	.....	.....	.....	.....
New Castle, Ind	14,144	12	.....	.....	.....	.....	.....	.....	.....	.....
New Haven, Conn	152,275	127	7	1	34	2	4	1	4	5
New Orleans, La	377,010	183	12	.....	6	.....	8	.....	21	15
New Philadelphia, Ohio	10,133	.....	.....	.....	2	.....	.....	.....	.....	.....
Newport, R. I	30,585	15	.....	.....	.....	.....	4	.....	.....	1
Newton, Mass	44,345	16	1	.....	3	.....	2	.....	.....	.....
New York, N. Y	5,737,492	3,513	327	43	1,899	57	154	5	407	177
Niagara Falls, N. Y	38,466	24	3	1	112	2	2	.....	1	1
Norfolk, Va	91,148	.....	5	1	.....	.....	.....	.....	2	3
North Adams, Mass	[1] 22,019	14	1	.....	.....	.....	.....	.....	.....	.....
Northampton, Mass	20,006	12	.....	.....	4	.....	.....	.....	1	1
North Attleboro, Mass	11,248	3	.....	.....	1	.....	.....	.....	1	1
North Little Rock, Ark	15,515	2	.....	.....	.....	.....	.....	.....	.....	.....
North Tonowanda, N. Y	14,060	5	1	.....	1	.....	2	.....	1	.....
Norwalk, Conn	27,332	26	.....	.....	3	1	.....	.....	.....	.....
Norwich, Conn	21,923	16	.....	.....	9	.....	.....	.....	.....	.....
Norwood, Ohio	23,269	7	.....	.....	18	.....	4	.....	.....	.....
Oak Park, Ill	27,816	14	2	.....	1	.....	7	.....	.....	.....
Oklahoma City, Okla	97,588	42	4	1	22	.....	2	.....	.....	1
Olean, N. Y	16,927	10	1	.....	2	.....	.....	.....	.....	.....
Omaha, Nebr	177,777	96	5	1	12	.....	32	1	.....	8
Orange, N. J	33,636	30	2	1	1	.....	2	.....	.....	.....
Oshkosh, Wis	36,549	.....	.....	.....	40	.....	.....	.....	.....	.....
Paducah, Ky	25,178	.....	2	.....	11	.....	.....	.....	.....	.....
Parkersburg, W. Va	21,059	21	1	.....	1	.....	.....	.....	.....	.....
Parsons, Kans	15,952	.....	1	.....	2	.....	.....	.....	.....	.....

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Feb. 14, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Pasadena, Calif.	49,620	15	1		4		4		4	1
Passaic, N. J.	74,478	32	2	1	2		1		1	
Paterson, N. J.	140,512	19	10		36		1			
Pawtucket, R. I.	60,666	25	1		1		5			1
Peekskill, N. Y.	19,034	8								1
Pekin, Ill.	10,973						1			
Peoria, Ill.	72,184	45					4		4	1
Perth Amboy, N. J.	42,646	10	2		2				2	1
Petersburg, Va.	25,817	22	1						3	2
Philadelphia, Pa.	1,735,514	1,159	77	17	358	5	65	2	72	76
Phillipsburg, N. J.	15,879	5								1
Piqua, Ohio.	14,275	14			6					
Pittsfield, Mass.	39,678	17					4		1	
Plainfield, N. J.	24,330	12	1		12	1	2			
Plattsburg, N. Y.	13,111	9								
Plymouth, Mass.	14,001	1								
Pontiac, Mich.	18,006	38	3		4				1	
Port Chester, N. Y.	16,727	4							1	
Port Huron, Mich.	[1] 18,863	29	2		12					
Portland, Me.	64,720	50	3		3		6			
Portland, Oreg.	308,399	118	9	1	5	1	10		16	7
Portsmouth, N. H.	11,730		3		4				1	
Portsmouth, Va.	40,693	46			1		3			
Poughkeepsie, N. Y.	30,796	20	1						1	
Providence, R. I.	259,895	181	31	7	16	1	19	1		7
Pueblo, Colo.	56,084	37			1		1			1
Quincy, Ill.	36,832	27	5				3			1
Quincy, Mass.	39,022	19	2		3		4		2	
Rahway, N. J.	10,361	3			1					1
Raleigh, N. C.	20,274	29			1				1	8
Redlands, Calif.	14,573	5			2		1		1	1
Reno, Nev.	15,514	10			4				1	1
Richmond, Ind.	25,080	11			16					
Richmond, Va.	158,702	104	5	1	106	1	8		4	10
Riverside, Calif.	20,496	7								1
Roanoke, Va.	46,282	42	3		2					2
Rochester, N. Y.	264,714	133	19	2	178	5	7			7
Rock Island, Ill.	29,452	23			7				1	2
Rocky Mount, N. C.	12,673	4								
Rome, Ga.	15,607	12					2		2	
Rutland, Vt.	15,038	11			1					
Sacramento, Calif.	68,984	35	1		18		2			2
St. Joseph, Mo.	86,498	73	5				1			6
St. Louis, Mo.	768,630	544	97	5	782	9	21	1	37	17
St. Paul, Minn.	252,465	126	13		23		9		14	10
Salem, Mass.	49,346	16	3	1			8		2	1
Salem, Oreg.	21,274	5			1		1			
Salt Lake City, Utah.	121,623	116	3		2		1		1	6
San Angelo, Tex.	[1] 10,321	0								
San Bernardino, Calif.	17,616	4					1			
San Diego, Calif.	56,412	30	1		2		1		19	3
Sandusky, Ohio.	20,226	12	1		3					1
Sanford, Me.	11,217	14			2					1
Santa Cruz, Calif.	15,150	7			4					
Saratoga Springs, N. Y.	13,839	8								
Sault Ste. Marie, Mich.	14,130	9			5		1		2	1
Savannah, Ga.	69,250	64	1				1			5
Schenectady, N. Y.	103,774	33	2		23		5	1	2	2
Sioux City, Iowa.	58,568		5				8			
Sioux Falls, S. Dak.	16,887	13			1		6	1		
Somerville, Mass.	88,618	63	3		16		2		1	1
South Bend, Ind.	70,967	16			4		1			1
Spartanburg, S. C.	21,985	8							1	
Springfield, Ill.	62,623	53					3			3
Springfield, Mass.	108,668	55	2		30		8		3	1
Springfield, Mo.	41,169	27								
Springfield, Ohio.	52,296	36			1		3		5	
Stamford, Conn.	31,810				11		3			
Staunton, Va.	11,823	5								
Steubenville, Ohio.	28,259	16			1					
Stillwater, Minn.	[1] 10,198	2							1	

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Feb. 14, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Stockton, Calif.	36,209	27	1	.....	9	.....	1	.....	.....	1
Superior, Wis.	47,167	20	.....	.....	37	.....	6	.....	3	.....
Syracuse, N. Y.	158,559	130	6	2	4	.....	9	.....	4	4
Taunton, Mass.	36,610	17	2	.....	.....	.....	.....	.....	.....	1
Terre Haute, Ind.	67,361	26	1	.....	10	.....	2	.....	.....	1
Tiffin, Ohio.	12,962	5	.....	.....	6	.....	.....	.....	.....	.....
Toledo, Ohio.	202,010	138	7	.....	206	3	25	1	.....	10
Topeka, Kans.	49,538	17	1	1	.....	.....	1	.....	8	.....
Traverse City, Mich.	14,090	1	.....	.....	.....	.....	.....	.....	.....	.....
Trenton, N. J.	113,974	72	3	.....	5	.....	1	.....	2	7
Troy, N. Y.	78,094	65	1	.....	1	.....	.....	.....	3	3
Tucson, Ariz.	17,324	17	.....	.....	.....	.....	1	.....	.....	.....
Vallejo, Calif.	13,803	.....	.....	.....	3	.....	.....	.....	.....	.....
Virginia, Minn.	15,954	.....	1	.....	.....	.....	.....	.....	1	.....
Waco, Tex.	34,015	29	1	.....	4	.....	3	.....	.....	1
Waltham, Mass.	31,011	13	5	.....	1	.....	.....	.....	.....	.....
Washington, D. C.	369,282	222	13	2	14	.....	11	.....	20	10
Waterbury, Conn.	89,201	.....	5	.....	5	.....	24	1	.....	1
Watertown, Mass.	15,188	6	.....	.....	15	.....	2	.....	.....	.....
Watertown, N. Y.	30,404	.....	1	.....	.....	.....	5	.....	.....	.....
Wausau, Wis.	19,666	23	.....	.....	27	.....	1	.....	.....	1
Westfield, Mass.	18,769	4	.....	.....	.....	.....	1	.....	.....	.....
West Hoboken, N. J.	44,386	18	7	1	.....	.....	2	.....	4	1
West New York, N. J.	19,613	10	.....	.....	14	.....	1	.....	.....	2
Wheeling, W. Va.	43,657	37	.....	.....	36	.....	.....	.....	2	1
White Plains, N. Y.	23,331	5	1	.....	77	.....	1	.....	.....	.....
Wichita, Kans.	73,597	57	.....	.....	1	.....	.....	.....	5	2
Wilmington, Del.	95,369	47	3	.....	16	.....	3	.....	.....	3
Winchester, Mass.	10,812	5	.....	.....	1	.....	.....	.....	.....	1
Winona, Minn.	[1] 18,583	3	.....	.....	26	.....	.....	.....	1	.....
Winston-Salem, N. C.	33,136	49	.....	.....	.....	.....	.....	.....	2	3
Winthrop, Mass.	13,105	5	.....	.....	8	.....	2	.....	.....	.....
Woburn, Mass.	16,076	.....	.....	.....	.....	.....	.....	.....	.....	1
Worcester, Mass.	166,106	85	11	.....	.....	.....	25	.....	7	4
Yonkers, N. Y.	103,066	54	2	.....	8	1	1	.....	.....	5
Zanesville, Ohio.	31,320	17	.....	.....	.....	.....	1	.....	.....	4

[1] Population Apr. 15, 1910.

FOREIGN AND INSULAR.

CANADA.

Influenza—Province of Ontario.

Under date of February 13, 1920, influenza was reported prevalent throughout the Province of Ontario, Canada, and to be spreading rapidly in cities. The type of the disease was stated to be mild but many fatalities were reported, the deaths occurring generally from pneumonia following influenza. The epidemic was reported to be increasing in southwestern Ontario, and a number of schools were closed.

GREECE.

Typhus Fever—Athens.

Under date of February 20, 1920, typhus fever was reported present in epidemic form at Athens, Greece.

HAWAII.

Rodent Plague—Ookala.

The finding of plague-infected rats was reported at Ookala, Hawaii, January 28, 29, and 30, 1920.

UNION OF SOUTH AFRICA.

Certain Diseases Declared Notifiable.

Under date of December 3, 1919, the minister of public health of the Union of South Africa declared the following diseases to be notifiable throughout the Union, in addition to diseases previously declared notifiable, with effect from the 1st day of January, 1920, namely, gonorrheal ophthalmia, ophthalmia neonatorum, and yellow fever.

INFLUENZA.

The following information was taken from reports received during the week ended March 5, 1920.

Place.	Date.	Cases.	Deaths.	Remarks.
Bolivia:				
La Paz	Jan. 11-24	9		
Canada:				
British Columbia—				
Prince Rupert	Feb. 8-14	50	1	
Manitoba—				
Winnipeg	Jan. 11-Feb. 24	128	13	
New Brunswick—				
St. John	Feb. 8-14	91	1	
Nova Scotia—				
Halifax	do	20		
Sydney	do	1		

INFLUENZA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Ontario—				
Fort William and Port Arthur.	....do.....	16	13	
Hamilton	Feb. 15–21	1,153	.....	
Moncton	Feb. 8–14	25	.....	
Summerside	Feb. 14–20	.....	.....	Present.
Toronto	Feb. 1–7	.....	43	
Quebec—				
Montreal	Feb. 14–20	.....	.....	Do.
Ceylon	Dec. 14–27	.....	22	
China:				
Antung	Jan. 11–18	1	.....	
Mukden	Jan. 18–24	.....	.....	Many cases.
Cuba:				
Cienfuegos	Feb. 8–14	81	5	
France:				
Cette	Jan. 25–31	.....	.....	Present.
Great Britain:				
England and Wales	Jan. 18–31	.....	151	96 great towns. Population, aggregate, 16,577,344.
London	do	.....	114	Including Greater London and the Outer Ring.
Scotland	Jan. 25–31	.....	1	In 16 principal towns. With influenza complications, 6 deaths. Population, 2,416, 900.
Italy:				
Milan	Oct. 1–31	.....	.....	Present.
India:				
Karachi	Jan. 2–8	309	309	
Rangoon	Dec. 14–27	.....	56	
Japan:				
Nagasaki	Jan. 19–25	.....	.....	Present.
Nagoya	Jan. 11–17	.....	53	
Tokyo	Jan. 1–18	200,000	.....	
Mexico:				
Saltillo	Feb. 8–14	.....	1	
Norway:				
Christiania	Jan. 25–31	.....	11	
Spain:				
Barcelona	Jan. 15–21	.....	.....	Present.
Union of South Africa:				
Port Elizabeth	Nov. 30–Dec. 6	1	.....	
Do	Dec. 28–Jan. 3	2	.....	
On vessels:				
S. S. Kaiserin Auguste Victoria.	.....	.....	.....	Cases, 63; deaths, 1. En route. At Plymouth, England, Jan. 29, 1920, from New York.
Transport Main	.....	.....	.....	Cases, 150, deaths, 2. En route between Bombay and Egypt. At Plymouth, England, Feb. 2, 1920.

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

Reports Received During Week Ended Mar. 5, 1920.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta	Dec. 28–Jan. 3	11	9	
Rangoon	Dec. 14–27	7	6	
Philippine Islands:				
Manila	Jan. 4–10	1	1	
Provinces	.....	.....	.....	Jan. 4–10, 1920: Cases, 133; deaths, 86.
Albay	Jan. 4–10	4	2	
Antique	.....do.....	26	14	
Mindoro	.....do.....	12	6	
Mountain	.....do.....	8	3	
Occidental Negros	.....do.....	19	15	
Samar	.....do.....	27	17	
Sorsogon	.....do.....	27	21	
Tayabas	.....do.....	10	8	

[1] From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Mar. 5, 1920—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Island—Continued.				
Provinces				Jan. 11-17, 1920: Cases, 79; deaths, 43.
Albay	Jan. 11-17	5	2	
Antique	do	39	21	
Batangas	do	12	6	
Cavite	do	1	1	
Isabela	do	6	3	
Mindoro	do	10	4	
Occidental Negros	do	2	4	
Palawan	do	4		
Samar	do		2	

PLAGUE.

Argentina:				
Rosario	Dec. 1-31		7	
Ceylon:				
Colombo	Dec. 14-27	18	16	
Ecuador:				
Guayaquill	Jan. 1-31	8		
India				Dec. 21-27, 1919: Cases, 2,984; deaths, 2,060.
Bombay	Dec. 21-27	1	1	
Rangoon	Dec. 14-27	11	10	
Peru:				
Callao	Nov. 1-30		3	
Paita	Dec. 29-Jan. 17	22	17	
Trujillo-Salaverry	Jan. 12-24	11	3	

SMALLPOX.

Arabia:				
Aden	Jan. 6-13		2	
Bolivia:				
La Paz	Jan. 11-24	7	14	
Canada:				
Nova Scotia—				
Halifax	Feb. 8-14	1		
Sydney	do	5		
Ontario				Feb. 1-7, 1920: Cases, 190; deaths, 3. In 23 counties, 43 localities, and 11 new centers.
Fort William and Port Arthur	Feb. 8-14	1		
Hamilton	Feb. 15-21	2		
Ottawa	Feb. 8-14	9		
Toronto	Feb. 1-7	85		
Prince Edward Island—				
Summerside	Feb. 14-20	3		In one family.
Quebec—				
Montreal	Feb. 14-20	1		
China:				
Mukden	Jan. 18-24			Present.
Colombia:				
Barranquilla	Jan. 25-31	200		Estimated.
Greece:				
Saloniki	Dec. 29-Jan. 4	10	7	In vicinity: Drama, 1 case; Jagoritzani, 9 cases, 1 death; Serres, 1 case.
India				Oct. 19-Nov. 29, 1919: Deaths, 1,909.
Bombay	Dec. 21-27	8	2	
Calcutta	Dec. 28-Jan. 3	124	106	
Rangoon	Dec. 14-27	10	3	
Italy:				
Messina	Jan. 5-18	9		Province, 54 cases, including 16 cases, San Fratello.
Milan	Oct. 1-31	6	2	In August, 20 cases, 1 death; September, 4 cases.
Naples	Jan. 19-25	2	5	
Palermo	Dec. 27-Jan. 23	6	3	
Newfoundland:				
St. Johns	Feb. 7-13	1		At outports, 18.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Mar. 5, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Portugal:				
Lisbon	Jan. 18-24		11	
Spain:				
Barcelona	Jan. 15-21		3	
Union of South Africa:				
Johannesburg	Nov. 1-30	8		
On vessels:				
S. S. Vestnorge	Jan. 15	1		Mild. At Kingston, Jamaica, from Philadelphia, via Norfolk.

TYPHUS FEVER.

Belgium:				
Ghent	Jan. 25-31		2	
Bolivia:				
La Paz	Jan. 11-24	4	1	
Chile:				
Valparaiso	Jan. 11-18	35	7	
Greece:				
Saloniki	Dec. 29-Jan. 4	5		Of these, 4 among Russians.
Italy:				
Naples	Jan. 19-25	2	1	
Mexico:				
San Luis Potosi	Feb. 8-14			Present.
Peru:				
Callao	Nov. 1-30		1	

Reports Received from Dec. 27, 1919, to Feb. 27, 1920.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy	Nov. 4-17		2	
Chosen (Korea)				Oct. 20-Nov. 16, 1919: Cases, 3,525; deaths, 3,144. Aug. 15-Nov. 16, 1919: Cases, 15,192; deaths, 9,823.
Chemulpo	Oct. 1-31	6	4	
Fusan	do	34	30	
Provinces—				
Keiki	Aug. 15-Nov. 16	224	135	
Kogen	do	64	38	
Kokai	do	4,015	2,770	
North Chusei	do	1	1	
North Heian	do	3,196	2,434	
North Kankyo	do	497	275	
North Keisho	do	63	35	
North Zenra	do	1,326	692	
South Chusei	do	930	590	
South Heian	do	3,031	1,858	
South Kankyo	do	870	551	
South Keisho	do	318	156	
South Zenra	do	657	288	
Greece:				
Saloniki	Oct. 10	1		
India				Oct. 19-Nov. 29, 1919: Deaths, 15,698.
Bombay	Nov. 2-8	1	1	
Calcutta	Oct. 26-Dec. 27	181	166	
Madras	Nov. 23-Dec. 27	14	5	
Do	Dec. 28-Jan. 3	5	5	
Rangoon	Nov. 30-Dec. 13	5	3	
Indo-China:				
Saigon	Oct. 27-Nov. 23	5	4	
Japan:				
Kobe	Nov. 24-30	2		
Taiwan				For entire island: Oct. 22-Nov. 30, 1919: Cases, 651; deaths, 385.
Tokyo	Nov. 10-20	1	1	
Java:				
East Java				Oct. 5-11, 1919; One case, 1 death At Pasoeroean.
West Java				Nov. 5-Dec. 25, 1919: Cases, 17.
Batavia	Nov. 5-Dec. 25	17		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Feb. 27, 1920—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands:				
Manila	Nov. 2-Dec. 27	20	10	
Provinces				Nov. 2-Dec. 27, 1919: Cases, 1,574; deaths, 1,151.
Albay	Nov. 2-Dec. 27	339	240	
Ambos Camarines	Nov. 2-Dec. 20	66	34	
Antique	Nov. 2-Dec. 27	160	113	
Batangas	do	39	28	
Bohol	do	34	27	
Cagayan	Nov. 3-15	35	20	
Capiz	Nov. 2-8	6	5	
Cavite	Nov. 2-Dec. 6	25	16	
Cebu	Nov. 2-Dec. 20	23	14	
Davao	Nov. 9-15	6	4	
Ilocos Norte	Nov. 2-29	42	40	
Ilocos Sur	Nov. 2-22	18	15	
Iloilo	Nov. 2-Dec. 20	55	33	
Isabela	Nov. 2-Dec. 13	167	77	
Laguna	Nov. 2-Dec. 20	23	17	
Mindoro	Nov. 2-Dec. 6	81	30	
Mountain	Nov. 2-Dec. 13	6	4	
Occidental Negros	Nov. 2-Dec. 27	100	53	
Pangasinan	Nov. 20-Dec. 20	60	46	
Rizal	do	41	15	
Sorsogon	Nov. 2-Dec. 13	208	139	
Tarlac	Nov. 2-22	11	11	
Tayabas	Nov. 2-Dec. 27	60	35	
Union	Nov. 9-15	5	5	
Provinces				Dec. 28, 1919-Jan. 3, 1920: Cases, 127; deaths, 97.
Albay	Dec. 28-Jan. 3	17	9	
Ambos Camarines	do	7	8	
Antique	do	71	59	
Batangas	do	1	1	
Iloilo	do	9	2	
Laguna	do	2	2	
Mountain	do	3	3	
Pangasinan	do	1		
Sorsogon	do	14	11	
Tayabas	do	2	2	
Poland:				
Garwolin				Present in November, 1919.
Kowal				Do.
Stryi				Do.
Russia:				
Novorossisk	Nov. 8-11	3		
Odessa	Oct. 25-Nov. 7	93		
Siam:				
Bankok	Dec. 7-20	115	37	Oct. 5-Dec. 15, 1919: Deaths, 1,080.
Straits Settlements:				
Singapore	Oct. 5-Nov. 28	14	13	
Sumatra:				
Deli	Oct. 1-31	1	1	

PLAGUE.

Brazil:				
Bahia	Nov. 9-15	1	1	
Porto Alegre	Nov. 1-30		3	
British East Africa:				
Kisumu	Sept. 28-Nov. 1	6	6	Dec. 14-20, 1919: Present in vicinity.
Ceylon:				
Colombo	Oct. 26-Nov. 29	18	19	
Chile:				
Antofagasta	Dec. 8-14	1		
China:				
Hongkong	Dec. 7-13	1		
Ecuador:				
Guayaquil	Nov. 1-31	2		
Egypt				Jan. 1-Dec. 25, 1919; Cases, 867; deaths, 469.
Cities—				
Alexandria	Dec. 3	1	1	From vessel Rachid Pacha.
Province—				
Assiout	Nov. 15-21	30	17	
Do	Jan. 13	1	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Feb. 27, 1920—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Greece:				
Saloniki	Oct. 6-Dec. 21	19	7	
India				Oct. 19-Dec. 20, 1919: Cases, 28,558; deaths, 21,383.
Bombay	Oct. 19-Nov. 29	5	5	
Karachi	Nov. 9-29	3	2	
Madras Presidency	Nov. 9-Dec. 27	1,068	704	
Do	Dec. 28-Jan. 3	106	74	
Rangoon	Nov. 2-Dec. 13	18	17	Oct. 19-Nov. 1, 1919: Cases, 10; deaths, 7.
Indo-China:				
Saigon	Oct. 27-Dec. 7	11	9	
Java:				
East Java				Sept. 28-Dec. 16, 1919: Cases, 1,494; deaths, 1,493. Surabaya Residency.
Peru:				
Salaverry (Trujillo)	Nov. 23-Dec. 21	9	1	Present in surrounding country.
Do	Dec. 29-Jan. 11	6	2	And in vicinity.
Senegal:				
Dakar	Nov. 1-30		146	Including Dakar and vicinity.
Siam:				
Bangkok	Dec. 14-20	4	2	
Straits Settlements:				
Singapore	Oct. 26-Dec. 20	6	4	
Syria:				
Beirut	Dec. 22	29		
Turkey:				
Constantinople	Nov. 14-Dec. 20	11		Present Dec. 11, 1919. Nov. 14-20, 1919: Present in vicinity.
On vessel:				
S. S. Kaisar-i-Hind	Nov. 28	3		At Port Said, Egypt. From Bombay, Nov. 15, for London.

SMALLPOX.

Algeria:				
Department—				
Algiers	Nov. 11-Dec. 31	65		
Do	Jan. 1-10	26		
Constantine	Nov. 11-Dec. 31	15		
Do	Jan. 1-10	2		
Oran	Nov. 11-Dec. 31	90		
Do	Jan. 1-10	25		
South Territory	do	5		
Arabia:				
Aden	Dec. 24-30	1	1	
Bolivia:				
La Paz	June 29-Dec. 27		216	Dec. 29, 1918-June 28, 1919: Cases, 86; deaths, 44. Dec. 14-20, 1919: Cases, 7; deaths, 5.
Do	Dec. 28-Jan. 3	6	4	
Brazil:				
Bahia	Oct. 26-Nov. 22	1,704	1,022	
Pernambuco	Nov. 10-16	29	4	
Rio de Janeiro	Sept. 28-Nov. 25	372	105	
Canada:				
British Columbia—				
Vancouver	Nov. 30-Dec. 6	1		
Do	Jan. 4-17	8		
Manitoba—				
Winnipeg	Jan. 11-17	2		
Nova Scotia—				
Halifax	Dec. 21-27	2		
Do	Jan. 4-27	3		
Sydney	Dec. 7-13	1		
Do	Dec. 28-Feb. 7	9		
Counties—				
Cumberland	Dec. 14-20			Present.
Inverness	do			Do.
Pictou	do			Do.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Feb. 27, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Ontario				Nov. 1-29, 1919: Cases, 1,673. Nov. 30-Dec. 6, 1919: Cases, 125, in 45 localities, exclusive of Dysart and Toronto. Dec. 1-31, 1919: Cases, 1 414; deaths, 2. Dec. 28, 1919-Jan. 31, 1920: Cases, 1,161; deaths, 20.
Fort William and Port Arthur	Jan. 25-31	4		
Gloucester County				Oct.-Nov., 1919: Cases, 3.
Hamilton	Dec. 14-20	3		
Do	Jan. 4-Feb. 14	21		
Kingston	Dec. 21-27	1		
Do	Dec. 28-Jan. 31	4		
North Bay	Jan. 11-17	3		
Ottawa	Dec. 14-20	1		
Do	Dec. 28-Jan. 17	2		
Peterborough	Dec. 21-27	3		
Do	Dec. 28-Jan. 31	27		
Prescott	Jan. 4-10	1		
Sault Ste. Marie	Dec. 7-27	1		
Do	Dec. 28-Jan. 3	1		
Toronto	Dec. 7-27	727		
Do	Dec. 28-Jan. 31	650	5	
Windsor	Dec. 14-27	2		
Quebec—				
Bonaventure and Gaspe Counties	Jan. 1-31	7		
Montreal	Dec. 7-27	3		
Do	Jan. 18-Feb. 5	5		
Quebec	Dec. 7-27	4		
Do	Jan. 4-31	9		
Saskatchewan—				
Moosejaw	Dec. 28-Jan. 31			
Saskatoon	Dec. 14-20	1		
Ceylon:				
Colombo	Nov. 16-Dec. 13	10	9	
China:				
Amoy	Nov. 4-Dec. 22			Present. Dec. 22: Four deaths.
Do	Dec. 30-Jan. 5	1		
Canton	Nov. 2-Dec. 27			Present.
Do	Dec. 28-Jan. 10			Present.
Changsha	Jan. 4-10	5		
Chungking	do			Do.
Do	Dec. 28-Jan. 3			Present.
Foochow	Nov. 16-Dec. 27			Do.
Do	Dec. 28-Jan. 10			Present.
Nanking	Dec. 6-27			Do.
Do	Dec. 28-Jan. 17			Do.
Shanghai	Dec. 22-28	2		
Chosen (Korea):				
Fusan	Oct. 1-31	2	1	
Seoul	do	9	1	
Colombia:				
Barranquilla	Nov. 16-Dec. 20	50	2	
Do	Jan. 11-17		1	Stated to be epidemic, Jan. 18-24, 1920.
Cuba:				
Habana	Jan. 31	4		Children living in same house.
Egypt:				
Alexandria	Nov. 12-Dec. 16	23	12	
Do	Jan. 1-7	9	5	
Cairo	Oct. 1-Dec. 9	55	26	
Port Said	do	6	6	
Finland:				
Provinces—				
Nyland	July 16-31	1		
Tavastehus	do	1		
Viborg	do	23		
Finland				Oct. 15-31, 1919: Cases, 6.
Provinces—				
Nyland	Oct. 15-31	4		Helsingfors.
Tavastehus	do	1		Rural district.
Viborg	do	1		Do.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Feb. 27, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Finland—Continued				Nov. 1-30, 1919: Cases, 45.
Provinces—				
Abo Och Borneborg	Nov. 1-15	1		
Nyland	Nov. 16-Dec. 15	24		
St. Michael	Dec. 15	7		
Tavastehus	do	5		
Vasa	do	11		
Viborg	Nov. 16-30	6		
France:				
Paris	Jan. 1-10	1	2	
Germany				
Prussia	Oct. 29-Nov. 29	1,100	332	Oct. 5-15, 1919: Cases, 32. In addition to previously reported cases; Sept. 28-Oct. 4, 1919: Cases, 26.
Greece:				
Saloniki	Nov. 10-Dec. 28	26	26	
India:				
Bombay	Oct. 12-Dec. 20	38	9	
Calcutta	Oct. 26-Dec. 27	186	260	
Karachi	Dec. 27	6	2	
Madras	Nov. 2-Dec 27	31	13	
Do	Dec. 28-Jan. 3	3	1	
Rangoon	Oct. 19-Dec. 14	41	15	
Indo-China:				
Saigon	Oct. 27-Nov. 23	2		
Italy:				
Genoa				Province: Nov. 17-Dec. 28, 1919: Cases, 15; deaths, 3.
Leghorn	Jan. 4-10	1		
Messina	Nov. 10-Dec. 28	55	8	
Do	Dec. 29-Jan. 4	3	2	
Milan	Nov. 1-30	6		
Naples	Dec. 28-Jan. 10	6	10	Province of Messina. Dec. 14-28, 1919: Cases, 68.
San Fratello	Dec. 1-28	49	5	
Do	Dec. 29-Jan. 4	6	1	
Tricste	Jan. 3-10	2		
Turin	Dec. 28-Jan. 4	1		
Japan:				
Kobe	Dec. 15-21	1		
Taiwan	Nov. 1-31	38	7	Entire island.
Do	Jan. 1-10	9	7	Do.
Java:				
East Java				Sept. 28-Dec. 18, 1919: Cases, 34.
Residency—				
Surabaya	Oct. 25-Dec. 18	26		
West Java				Oct. 17-Dec. 25, 1919: Cases, 659; deaths, 151.
Batavia	Oct. 17-Dec. 12	49	22	
Mexico:				
Acapulco	Nov. 9-15	2		
Chihuahua	Dec. 21-27	2		
Do	Jan. 11-17		1	
Ciudad Juarez	Jan. 11-Feb. 7		2	
Guadalajara	Dec. 1-31	1		
Mexico City	Nov. 16-Dec. 20	11		
San Luis Potosi	Dec. 14-20		1	
Do	Jan. 18-24		1	
Tehuantepec	Dec. 25-31	6		
Do	Jan. 1-15	31		
Newfoundland:				
St. Johns	Dec. 20-26	3		Dec. 13-26, at outports, 6 cases. Present at 8 other localities.
Do	Dec. 27-Jan. 30	8		Outports, 3 cases. Present at other localities.
Panama:				
Colon	Dec. 15-21	1		
Portugal:				
Lisbon	Nov. 30-Dec. 27		55	
Do	Dec. 28-Jan. 17		44	
Oporto	Dec. 7-20	5	5	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Feb. 27, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Portuguese East Africa:				
Lourenco Marques	Nov. 23-Dec. 20	9		Present in 5 districts Nov. 9-Dec. 20, 1919, with 56 reported cases.
Districts—				
Gaza	Dec. 7-13			Present.
Inhambane	do			Do.
Mozambique	do			Do.
Quelimane	do			Do.
Tete	do			Do.
Towns—				
Inhambane	Dec. 7-27	7		
Mozambique	do	2		
Quelimane	do	4		
Tete	do	1		
Spain:				
Barcelona	Nov. 6-Dec. 27		26	
Do	Dec. 28-Jan. 14		16	
Bilbao	Nov. 1-Dec. 20		4	
Cadiz	Oct. 1-Nov. 30		6	
Valencia	Nov. 10-Dec. 27	39	9	
Do	Dec. 28-Jan. 24	38	3	
Vigo	Nov. 18-Dec. 27	14		
Do	Dec. 28-Jan. 3	2	2	Jan. 11-17, 1920: Present in vicinity.
Sumatra:				
Medan	Oct. 1-31	8		
Tunis:				
Tunis	Dec. 23-29	1		
Do	Jan. 19-25	1	1	
Turkey:				
Constantinople	Nov. 9-Dec. 14	27		
Union of South Africa:				
Johannesburg	Oct. 1-31	10		
On vessel:				
S. S. Roggeveen		1		Vessel from Java: at Noumea, New Caledonia. Case left at Noumea. Vessel arrived at Sydney, Jan. 2, 1920.
S. S. Sarcoxie	Dec. 23	1		At Ponta Delgada, Azores, From Rotterdam for New York.

TYPHUS FEVER.

Algeria:				
Departments—				
Algiers	Dec. 11-31	2		
Constantine	Nov. 11-Dec. 31	2		
Do	Jan. 1-10	1		
Oran	Nov. 21-Dec. 11	5		
Austria				Sept. 7-Nov. 22, 1919: Cases, 17.
Vienna	Sept. 7-14	5		
Bolivia:				
La Paz	June 29-Dec. 20	30	31	Dec. 29, 1918-June 28, 1919: Deaths, 52.
Do	Jan. 4-10	2	1	
Bulgaria:				
Sofia	Dec. 21-31	1	1	
Do	Jan. 1-10	2		
Varna	Feb. 18	110		
Canada:				
Ontario Province				Dec. 1-31, 1919: One case.
Chile:				
Antofagasta	Nov. 17-Dec. 14	14		
Santiago				Jan. 12-Sept. 30, 1919: Cases, 5,153; deaths, 1,023. Outbreak in October, 1918.
Valparaiso	Nov. 9-Dec. 27	955	114	Dec. 1-13, 1919: Cases, 700; deaths, 18.
Do	Dec. 28-Jan. 11	90	23	
China:				
Antung	Nov. 3-Dec. 14	2		
Czechoslovakia:				
Prague	Dec. 21-27	1		
Egypt:				
Alexandria	Nov. 12-Dec. 16	6	1	
Do	Jan. 1-7	5		
Cairo	Oct. 1-Dec. 9	98	39	
Port Said	Oct. 1-Dec. 2	2	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Feb. 27, 1920—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Esthonia				Feb. 16, 1920: Cases, 7,500 to 8,000. Estimated mortality, 40 per cent.
Narva	Feb. 16	2,500		
Reval	do	2,500		
Finland:				
Province—				
Viborg	July 16-31	2		
Germany				Oct. 5-Dec. 6, 1919: Cases, 10—civil population, 3; military 4. Repatriated soldiers, 3.
Great Britain:				
Belfast	Dec. 28-Jan. 3	1	1	
Glasgow	Nov. 30-Dec. 6	2		
Greece:				
Cavalla	Nov. 17-Dec. 28	4		
Drama	Nov. 24-Dec. 28	6		
Saloniki	Oct. 6-Dec. 21		43	
Thassos Island	Dec. 22-28	1		
Zihna	do	1		
Hungary				Aug. 25-Sept. 14, 1919: Cases, 6.
Italy:				
Trieste	Dec. 14-27	3		
Do	Dec. 23-Jan. 3	1		
Venice	Nov. 17-Dec. 21	6	1	
Japan:				
Nagasaki	Dec. 1-23	4	2	
Do	Jan. 12-18	1	1	
Mexico:				
Chihuahua	Dec. 21-27	2		
Do	Jan. 11-17		1	
Mexico City	Nov. 16-Dec. 20	107		
Saltillo	Nov. 1-30	2	1	
San Luis Potosi	Dec. 14-27			Present.
Do	Dec. 23-Feb. 7			Do.
Paraguay:				
Asuncion	Nov. 30-Dec. 6	1		
Peru:				
Cerro de Pasco	Dec. 7-13	1		
Portugal:				
Lisbon	Dec. 6-12		2	
Spain:				
Barcelona	Nov. 20-26	7		
Corunna	Nov. 24-Dec. 7	2		
Tunis:				
Tunis	Dec. 14-20	1		
Do	Dec. 29-Jan. 31	2	1	
Turkey:				
Constantinople	Nov. 14-Dec. 27	49		

YELLOW FEVER.

Brazil:				
Bahia	Oct. 26-Nov. 8	1	2	
Mexico:				
Campeche	Dec. 20	1		
Merida	Dec. 7-27	4	2	The cases were sent from Opichen, vicinity of Muna. One death in case from Muna. Total to Dec. 27: Cases, 47; deaths, 21.
Do	Dec. 28-Jan. 31	1		