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## INFLUENZA—PREVALENCE IN THE UNITED STATES.

The peak of the present wave of epidemic influenza definitely has passed in practically all sections of the United States. According to morbidity reports furnished to the Public Health Service by State health departments, in only 3 of the 40 States for which fairly regular reports are available, were increases reported for the week ended February 21. The States for which no decreases in the number of cases were reported were Georgia, Vermont, and Oregon; while in Maine, New York (exclusive of New York City), and Louisiana the decreases indicated were relatively small.

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.	Average per week in December, 1919.	Cases reported week ended January—					Cases reported week ended February—		
		3	10	17	24	31	7	14	21
Alabama.....	5				8	203	1,296	3,236	2,366
Arkansas.....	26	52	35	53	179	595	5,666	6,599	2,793
California.....	24	14	32	322	1,604	7,133	13,660	11,887	7,420
Connecticut.....	5	1	1	14	1,123	4,664	5,665	4,868	2,771
Delaware.....	3	1	1		5	21	83	78	43
District of Columbia.....	4	23	9	126	1,216	1,616	557	298	104
Florida.....	6	14	2	10	484	1,547	1,581	1,735	1,420
Georgia.....	25	10	27	27	95	617	3,256	5,411	7,809
Idaho.....			88	270	922	2,783	2,394		
Illinois.....	55	60	73	3,251	14,805	29,156	30,330	23,037	7,237
Indiana.....	41	31	18	44	1,714		7,811	7,903	3,904
Iowa.....	3	1	10	30	644	3,960	5,070	1,961	869
Kansas.....	11	22	17	45	1,130	8,582	16,960	17,609	10,026
Kentucky.....	44	41	45	75	170	878	2,536	6,067	
Louisiana.....	13	32	52	27	123	763	1,901	3,400	3,153
Maine.....	2	7	1	4		387	936	3,043	3,702
Maryland.....							4,935	8,942	4,758
Massachusetts.....	31	41	40	54		3,730	9,731	12,389	4,375
Michigan.....							14,201	13,470	6,672
Minnesota.....						5,775	11,397	7,555	4,213
Missouri.....						4,043	5,359	1,696	466
Mississippi.....							2,761	4,014	3,332
Montana.....	3	2	0	1	67	1,022	1,847	1,450	1,400
Nebraska.....	1		2	1	154	1,815	3,998	6,048	3,272
New Hampshire.....							610		
New Jersey.....	28	22	23	98	753	7,365	9,603	5,807	2,798
New Mexico.....	3	2	8	4	61	260	1,576	1,166	632
New York (exclusive of New York City).....	36	52	31	61	555	4,755	11,616	13,259	11,304
New York City.....	58	42	100	384	5,690	30,456	21,388	8,091	3,030
North Carolina.....						3,356	12,892	25,571	14,439
North Dakota.....							946	497	178
Ohio.....							10,479		
Oregon.....							1,042	1,318	1,971
Pennsylvania.....							16,090	13,324	9,365
South Carolina.....							3,179	3,916	2,846
South Dakota.....	1			3	118	1,661	5,042	4,976	3,047
Tennessee.....							2,331	1,432	
Texas.....							11,265	6,788	1,035
Utah.....							1,489	228	96
Vermont.....	1				25	89	272	796	1,314
Virginia.....						3,097	6,318	2,934	1,512
Washington.....	1				12	902	6,451	6,426	4,596
West Virginia.....						1,667	4,732	6,308	1,848
Wisconsin.....	3	6	3	67	1,944	6,739	14,328	10,310	6,274
Wyoming.....						1,372			
Total.....	433	476	618	4,971	33,601	141,009	295,584	266,942	152,390
Number of States reporting.....	25	20	22	22	24	31	43	40	38

<sup>1</sup> Week ended Friday.

<sup>2</sup> Five days only.

<sup>3</sup> Six days only.

As predicted in the Public Health Reports of February 20, the peak of mortality from influenza and pneumonia (all forms) in the group of 46 large cities included in the Weekly Health Index of the Bureau of the Census was reached in the week ended February 14. Considering these cities as a single group, the excess mortality rate (over that of a normal year in the corresponding season) was 853 for the week ended February 21, as compared with 1,322 for the preceding week, 1,241 for the week ended February 7, and 746 for the week ended January 31.

TABLE A.—Comparison of the excess<sup>1</sup> 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
Sept. 21.....	76	Jan. 10.....	-55
Sept. 28.....	326	Jan. 17.....	-27
Oct. 5.....	1,028	Jan. 24.....	184
Oct. 12.....	2,557	Jan. 31.....	746
Oct. 19.....	4,592	Feb. 7.....	1,241
Oct. 26.....	4,695	Feb. 14.....	1,322
Nov. 2.....	3,332	Feb. 21.....	853
Nov. 9.....	1,832		
Nov. 16.....	989		
Nov. 23.....	620		
Nov. 30.....	526		
Dec. 7.....	617		
Dec. 14.....	792		
Dec. 21.....	801		
Dec. 28.....	629		

<sup>1</sup> 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.

If the curves of the two epidemic waves be plotted on arithlog paper and fitted together, it will be noted that they are strikingly similar so far, especially if the excess over what apparently is the "norm" for 1920 is taken into consideration. Placing the peaks together and computing the ratios of the weekly excess rates for the 1920 wave to that of corresponding weeks in the 1918 wave, it is seen that for the five highest weeks (ended Jan. 24-Feb. 21) the mortality in these large cities chargeable to the present epidemic is so far under 30 per cent of what it was in 1918.

For the cities in which the peak of excess mortality from influenza and pneumonia (all forms) definitely appears to have been reached, the following table has been prepared. It should be noted that the data for cities appearing in the Public Health Reports for the two weeks preceding this issue have been considerably revised.

TABLE B.—*Excess of mortality*<sup>1</sup> *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. <sup>2</sup>
	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.	1,963	2,065	105
New York, N. Y.	do.	do.	5,091	1,705	34
Oakland, Calif.	Nov. 2	do.	5,679	1,196	21
St. Louis, Mo.	do.	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.	( <sup>3</sup> )	do.	( <sup>3</sup> )	1,285	( <sup>2</sup> )
Indianapolis, Ind.	Oct. 19	do.	2,210	2,004	91
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
New Haven, Conn.	do.	do.	6,033	1,630	27
New Orleans, La.	do.	do.	9,156	492	5
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

<sup>1</sup> 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 mid-point 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.

<sup>2</sup> The percentages appearing in a similar table in the Public Health Reports for Feb. 20 have been considerably revised and a number of corrections have been made in the table above.

<sup>3</sup> Data not available.

It will be noted that the peak of mortality in this epidemic wave apparently has definitely occurred in 31 out of 40 cities for which data are available. In 8 cities—Atlanta, Birmingham, Buffalo, Fall River, Lowell, Nashville, Philadelphia, and Worcester—further increases were reported for the week ended February 21. Incomplete reports were received from Los Angeles, Oakland, and Jersey City, which cities apparently were at or near their peaks.

The very wide variations in the ratios of the excess peak rates for 1920 to those for 1918 for the different cities (ranging from 5 to 152) are especially interesting and suggest correlations of possible significance from more than one point of view. In a later publication, where more complete data will be available, some analyses of these differences will be presented.

Note already has been made in a preliminary way of the quite definite geographical movement of the epidemic at successive time intervals. (Public Health Reports, Feb. 20, p. 386.) The later reports afford further evidence of this movement along the lines already mentioned.

In Table II is given the number of deaths from influenza and pneumonia (all forms) by weeks in January and February to date, 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 January and February, 1920.

City.	Week ended—							
	Jan. 3.	Jan. 19.	Jan. 17.	Jan. 24.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Albany, N. Y.	6	3	2	3	14	19	29	23
Atlanta, Ga.	16	117	110	110	15	32	168	180
Baltimore, Md.	30	20	35	24	59	122	273	231
Birmingham, Ala.	11	111	18	16	14	22	18	59
Boston, Mass.	24	23	28	45	85	159	255	214
Buffalo, N. Y.	13	10	7	19	17	67	141	145
Cambridge, Mass.	4	8	7	8	14	22	29	23
Chicago, Ill.	98	107	153	472	1,109	1,005	494	243
Cincinnati, Ohio.	18	14	12	17	25	38	62	51
Cleveland, Ohio.	28	21	25	26	41	158	258	177
Columbus, Ohio.	5	15	9	8	22	59	118	66
Dayton, Ohio.	7	7	13	46	47	32	24	67
Denver, Colo.	15	21	18	24	49	159	100	67
Fall River, Mass.	3	7	10	5	3	5	16	25
Grand Rapids, Mich.	3	1	4	2	6	31	37	32
Indianapolis, Ind.	13	18	116	21	36	92	124	72
Jersey City, N. J.	12	14	14	24	64	(?)	(?)	78
Kansas City, Mo.	12	13	29	96	120	220	167	74
Los Angeles, Calif.	18	16	18	19	22	42	88	(?)
Louisville, Ky.	9	10	10	9	18	40	52	48
Lowell, Mass.	3	5	4	2	7	12	10	36
Memphis, Tenn.	15	12	12	11	10	22	64	61
Milwaukee, Wis.	15	25	13	45	141	184	121	41
Minneapolis, Minn.	20	12	10	9	63	168	125	338
Nashville, Tenn.	4	6	11	6	12	8	23	47
Newark, N. J.	15	17	14	30	55	116	142	96
New Haven, Conn.	11	6	8	10	19	20	60	34
New Orleans, La.	18	27	27	27	32	36	62	31
New York, N. Y.	195	218	261	511	1,308	1,988	1,796	967
Oakland, Calif.	7	4	8	20	24	55	54	(?)
Omaha, Nebr.	5	4	7	13	45	62	73	32
Philadelphia, Pa.	64	55	75	108	153	289	564	620
Pittsburgh, Pa.	55	47	53	55	76	168	417	290
Portland, Oreg.	14	13	18	19	115	21	57	(?)
Providence, R. I.	6	12	13	8	14	39	88	82
Richmond, Va.	6	2	9	6	21	35	38	28
Rochester, N. Y.	8	13	7	12	23	50	52	27
St. Louis, Mo.	47	57	41	73	236	401	282	129
St. Paul, Minn.	7	7	(?)	26	72	80	63	(?)
San Francisco, Calif.	20	14	26	48	50	115	137	113
Seattle, Wash.	9	12	4	7	12	32	96	78
Spokane, Wash.	0	4	3	3	12	32	64	21
Syracuse, N. Y.	6	9	8	10	31	80	78	29
Toledo, Ohio.	8	9	8	9	18	54	50	51
Washington, D. C.	32	22	27	51	181	164	92	55
Worcester, Mass.	5	10	9	7	14	15	44	52

<sup>1</sup> Deaths from pneumonia (all forms) only.

<sup>2</sup> No report.

<sup>3</sup> 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 January and February to date for those cities in the Weekly Health Index for which population estimates are available. For convenience in comparison the "normal" annual rate from these causes in the

corresponding weeks is also shown in Table III. The method by which this "normal" rate was found is explained in the footnotes to the table.

TABLE III—Annual death rate per 100,000 from influenza and pneumonia (all forms) by weeks ended Jan. 3 to Feb. 21, 1920, and for corresponding weeks of the median year in the period 1910-1916.<sup>1</sup>

City.	In median year of the period 1910-1916.						1920.					
	Week ended—						Week ended—					
	Jan. 17.	Jan. 24.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Jan. 17.	Jan. 24.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Albany, N. Y.	407	406	399	387	370	346	93	139	649	880	1,350	1,065
Atlanta, Ga.	225	228	239	253	276	302	<sup>2</sup> 258	<sup>2</sup> 258	388	827	<sup>2</sup> 1,758	<sup>2</sup> 2,300
Baltimore, Md.	368	367	358	345	341	340	272	187	459	949	2,086	1,797
Birmingham, Ala.	294	307	325	337	344	346	<sup>2</sup> 211	422	369	580	475	1,556
Boston, Mass.	300	300	298	296	294	297	186	299	564	1,049	1,693	1,431
Buffalo, N. Y.	211	212	214	216	220	226	77	209	187	738	1,554	1,598
Cambridge, Mass.	266	267	264	258	252	252	328	374	655	1,029	1,310	1,076
Chicago, Ill.	344	344	341	337	333	330	307	948	2,227	2,018	993	488
Cincinnati, Ohio.	258	266	271	275	276	276	150	212	812	474	773	1,010
Cleveland, Ohio.	174	173	173	174	177	185	161	167	264	1,016	1,660	1,139
Columbus, Ohio.	214	212	210	210	212	219	208	185	509	1,366	2,731	1,528
Dayton, Ohio.	288	270	269	265	260	254	279	519	1,836	1,876	1,277	958
Fall River, Mass.	307	344	394	435	450	452	406	203	122	203	650	1,015
Grand Rapids, Mich.	152	156	154	146	139	137	154	77	231	1,193	1,424	1,232
Indianapolis, Ind.	276	276	259	233	223	222	<sup>2</sup> 287	377	646	1,652	2,227	1,283
Jersey City, N. J.	296	295	292	289	287	287	229	393	1,047	( <sup>3</sup> )	( <sup>3</sup> )	1,276
Kansas City, Mo.	261	275	286	294	300	300	482	1,595	1,994	3,656	2,775	1,230
Los Angeles, Calif.	188	187	183	174	161	145	165	174	202	385	807	( <sup>3</sup> )
Louisville, Ky.	228	234	236	239	243	253	215	193	387	859	1,117	1,031
Lowell, Mass.	313	316	308	291	271	284	191	96	835	574	478	1,721
Memphis, Tenn.	330	330	327	322	320	322	404	371	337	741	2,156	2,055
Milwaukee, Wis.	181	185	187	189	190	183	<sup>2</sup> 149	517	1,621	2,116	1,391	471
Minneapolis, Minn.	220	228	228	220	206	183	136	122	857	2,285	1,700	4517
Nashville, Tenn.	312	317	332	367	393	418	481	262	525	350	1,906	2,056
Newark, N. J.	276	274	261	243	224	220	170	365	669	1,411	1,727	1,131
New Haven, Conn.	438	440	432	402	390	388	269	337	640	673	2,020	1,145
New Orleans, La.	318	333	344	350	354	354	368	368	436	491	846	423
New York, N. Y.	265	270	276	282	290	298	261	511	1,308	1,987	1,795	987
Oakland, Calif.	174	165	163	143	130	120	195	487	584	1,339	1,315	( <sup>3</sup> )
Omaha, Nebr.	272	281	295	305	310	310	202	376	1,302	1,793	2,112	926
Philadelphia, Pa.	286	291	290	289	286	284	222	320	453	856	1,670	1,835
Pittsburgh, Pa.	391	394	388	377	368	367	466	483	668	1,476	3,665	2,549
Providence, R. I.	290	301	309	314	320	322	257	158	277	771	1,741	1,622
Richmond, Va.	362	369	373	375	376	377	292	195	681	1,136	1,233	908
Rochester, N. Y.	235	225	218	206	200	198	138	236	453	984	1,024	532
St. Louis, Mo.	313	311	300	282	257	244	274	488	1,578	2,681	1,885	862
St. Paul, Minn.	163	162	159	154	150	150	( <sup>3</sup> )	526	1,457	1,619	1,275	( <sup>3</sup> )
San Francisco, Calif.	216	204	181	162	152	150	283	523	643	1,253	1,493	1,231
Syracuse, N. Y.	199	205	217	224	229	230	253	323	1,001	2,375	2,520	937
Toledo, Ohio.	176	192	202	209	214	218	159	180	358	1,074	994	1,014
Washington, D. C.	262	270	278	284	293	305	351	1,052	2,350	2,129	1,194	714
Worcester, Mass.	320	333	341	346	348	346	270	210	420	450	1,321	1,561

<sup>1</sup> The weekly rate for the median year in the period 1910-1916 is presented as a "normal" rate. It is, of course, only approximated, 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 of each week.

<sup>2</sup> For pneumonia only.

<sup>3</sup> No report.

<sup>4</sup> Influenza only.

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 to date, 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, Jan. 3 to Feb. 21, 1920, over that in corresponding week of median year (1910-1916) in certain large cities.<sup>1</sup>*

City.	Excess over corresponding week of median year—Annual rate per 100,000.							
	Jan. 3.	Jan. 10.	Jan. 17.	Jan. 24.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Albany, N. Y.....	- 54	-251	-314	-267	250	493	980	719
Atlanta, Ga.....	<sup>2</sup> - 85	<sup>2</sup> 209	<sup>2</sup> 33	<sup>2</sup> 30	149	574	<sup>2</sup> 1,482	<sup>2</sup> 1,998
Baltimore, Md.....	- 106	-204	- 96	-180	101	604	1,745	1,457
Birmingham, Ala.....	- 5	<sup>2</sup> - 1	<sup>2</sup> -83	115	44	243	131	1,210
Boston, Mass.....	-131	-113	-114	- 1	266	753	1,399	1,137
Buffalo, N. Y.....	- 69	-102	-134	- 3	- 27	522	1,334	1,372
Cambridge, Mass.....	- 68	111	62	107	391	771	1,058	824
Chicago, Ill.....	-102	-118	- 37	604	1,886	1,081	660	158
Cincinnati, Ohio.....	- 8	- 71	-108	- 54	41	199	497	734
Cleveland, Ohio.....	0	- 4	- 13	- 6	91	843	1,483	954
Columbus, Ohio.....	-103	130	- 6	- 27	299	1,156	2,519	1,309
Dayton, Ohio.....	51	-101	11	249	1,567	1,611	1,017	704
Fall River, Mass.....	-128	5	99	-141	-272	-232	200	583
Grand Rapids, Mich.....	- 15	-105	2	- 79	77	1,047	1,285	1,095
Indianapolis, Ind.....	<sup>2</sup> -168	62	<sup>2</sup> 11	101	597	1,419	2,004	1,071
Jersey City, N. J.....	- 90	- 64	- 67	96	755	( <sup>2</sup> )	( <sup>2</sup> )	989
Kansas City, Mo.....	- 31	- 31	221	1,320	1,708	3,362	2,475	930
Los Angeles, Calif.....	- 16	- 89	- 23	- 13	19	211	646	( <sup>2</sup> )
Louisville, Ky.....	- 12	- 3	- 13	- 41	161	620	874	778
Lowell, Mass.....	-145	- 66	-122	-220	27	283	207	1,457
Memphis, Tenn.....	193	81	74	41	10	419	1,836	1,733
Milwaukee, Wis.....	3	111	<sup>2</sup> - 32	332	1,434	1,927	1,201	276
Minneapolis, Minn.....	88	- 41	- 84	-106	629	2,065	1,494	434
Nashville, Tenn.....	-130	- 47	169	- 55	198	- 17	613	1,638
Newark, N. J.....	- 77	- 64	-106	91	406	1,168	1,503	911
New Haven, Conn.....	0	-222	-169	103	208	271	1,630	4757
New Orleans, La.....	- 36	67	50	36	92	141	492	69
New York, N. Y.....	- 61	- 42	- 4	241	1,032	1,705	1,505	669
Oakland, Calif.....	- 16	- 84	- 21	366	431	1,196	1,185	( <sup>2</sup> )
Omaha, Nebr.....	-117	-151	- 70	95	1,007	1,488	1,802	616
Philadelphia, Pa.....	- 76	-116	- 64	29	168	567	1,384	1,551
Pittsburgh, Pa.....	120	31	75	89	280	1,090	3,297	2,182
Providence, R. I.....	-127	- 34	- 33	-143	- 32	457	1,421	1,800
Richmond, Va.....	-130	-260	- 70	- 74	306	761	857	631
Rochester, N. Y.....	- 41	38	- 67	11	235	778	824	334
St. Louis, Mo.....	- 15	72	- 39	177	1,278	2,399	1,628	618
St. Paul, Minn.....	- 12	- 79	( <sup>2</sup> )	364	1,296	1,465	1,125	( <sup>2</sup> )
San Francisco, Calif.....	- 4	- 68	67	319	462	1,091	1,341	1,061
Syracuse, N. Y.....	10	100	59	115	784	2,651	2,291	707
Toledo, Ohio.....	19	24	- 17	- 12	156	865	780	796
Washington, D. C.....	175	34	89	782	2,072	1,845	901	409
Worcester, Mass.....	-117	1	- 50	-123	79	104	973	1,215

<sup>1</sup>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.

<sup>2</sup> For pneumonia only.

<sup>3</sup> No report.

<sup>4</sup> 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. 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.<sup>1</sup>*

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	953	189	53	65
Birmingham, Ala.	-23	-26	-33	322	1, 493	2, 770	3, 369	2, 085	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	149
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	860	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.	26	.....	103	47	1, 521	2, 713	3, 117	3, 173	2, 177	1, 198	921	1, 461
Los Angeles, Calif.	38	-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	873
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	253
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	1, 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, 705	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	610	83	76	76
Toledo, Ohio	-20	.....	30	-13	101	896	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

<sup>1</sup> 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.

## IVY AND SUMAC POISONING

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### INTRODUCTION.

The fact that certain species of plants belonging to the Rhus or Sumac family exert a poisonous action upon the skin of persons susceptible to their influence, has long been a matter of general recognition. Inasmuch as the poisonous growths possessing this characteristic thrive in America, and are especially prolific in certain sections of the country, it seems desirable from a health standpoint to bring together the general information on this subject in

order that the public may become better acquainted with the nature of these plants, methods by which they may be recognized, and the various means of preventing their toxic effects. The sum total of the incapacity and economic loss arising from this cause can scarcely be estimated, to say nothing of the bodily discomfort which commonly ensues, but certainly they are sufficient to justify a more widespread knowledge of the practical aspects of the Rhus problem.<sup>1</sup>

#### DESCRIPTION OF THE PLANTS.

The native forms of Rhus<sup>2</sup> which produce skin eruptions belong to several species distinct botanically, including the vines and shrubs known as poison ivy and poison oak, and also the poison sumac shrub or tree. Despite their variety of form these plants are closely related and possess certain prominent peculiarities by which they can usually be distinguished without difficulty, so that by acquiring some slight knowledge of the characteristic appearance of their leaves, fruit, winter buds, and of their habit of growth, one may readily avoid them at all seasons of the year.

#### Poison Ivy and Poison Oak.

Poison ivy and poison oak occur as woody perennial vines or as low erect plants, or trailing shrubs, and are most readily distinguished by their leaves, which are always divided into three leaflets, and by their smooth, whitish, waxy fruits, which resemble mistletoe berries in appearance but vary in size from  $\frac{1}{8}$  to  $\frac{1}{4}$  of an inch in diameter and contain a single stony seed. Of the various names applied to these plants in different localities the commonest are poison ivy, poison oak, mercury, piery, climbing or trailing sumac, and poison vine. For purposes of recognition and consideration with respect to their poisonous properties, the several botanical species may be included under one general description, although great variations in character of growth and in the forms of the leaflets are found, in many instances even on individual plants.

While the names poison oak and poison ivy are used interchangeably, the term poison oak is often restricted to plants with an erect or bushlike habit of growth and with leaflets resembling certain types of oak foliage. Thus the plant generally known as poison oak<sup>3</sup> throughout the Pacific coast region from Lower California and Arizona to Canada, occurs as a bush, sometimes attaining a height of

<sup>1</sup> Through the work of a number of investigators, knowledge of the toxic group of Rhus plants has been greatly increased in recent years with respect not only to the nature of the poisonous principle but also to the dermatitis produced by it. In the present bulletin the results of these investigations have been freely consulted in preparing a general summary of the available information on the subject. To those desirous of obtaining more detailed information, the references found on page 458, which, however, do not constitute a complete bibliography of the literature, may be of assistance.

<sup>2</sup> The species of poison ivy and poison sumac are grouped by some botanical authors under the generic name *Toxicodendron*.

<sup>3</sup> *Rhus diversiloba* Torr. and Gray.



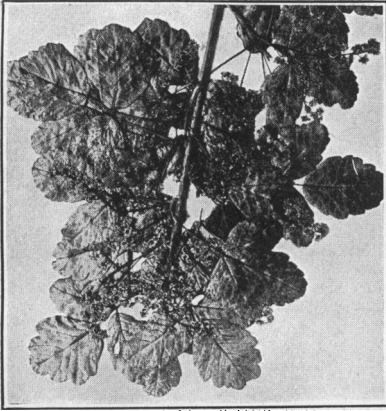


FIG. 1.—Poison oak, *Rhus diversiloba* Torr and Gr., of California and the Pacific Coast.

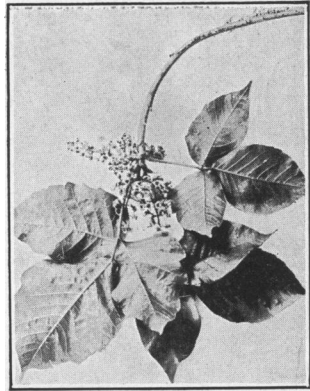


FIG. 2.—Poison ivy, *Rhus radicans* L. Branches of poison ivy vine showing leaves, aerial rootlets, and flowers.

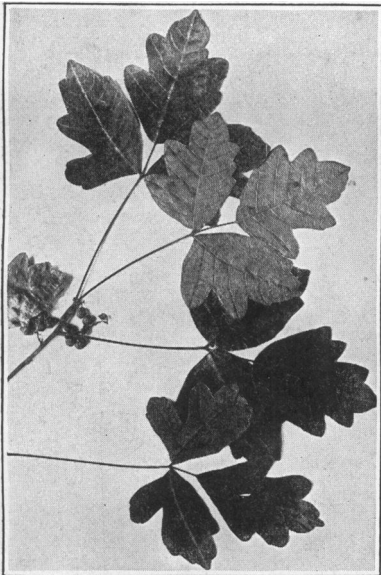


FIG. 3.—Poison oak, *Rhus quercifolia* (Michx.) Steud., of eastern United States.

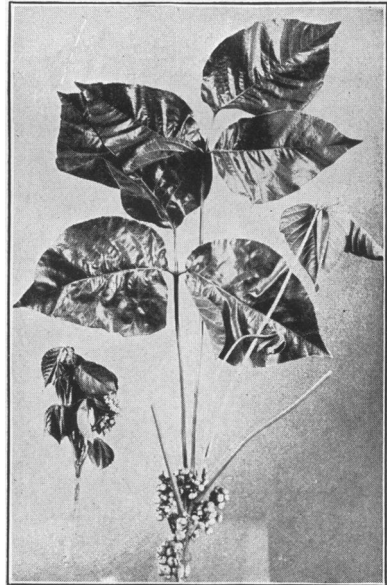


FIG. 4.—Poison oak, *Rhus rydbergii* Small. A western form known as Rydberg's poison oak.

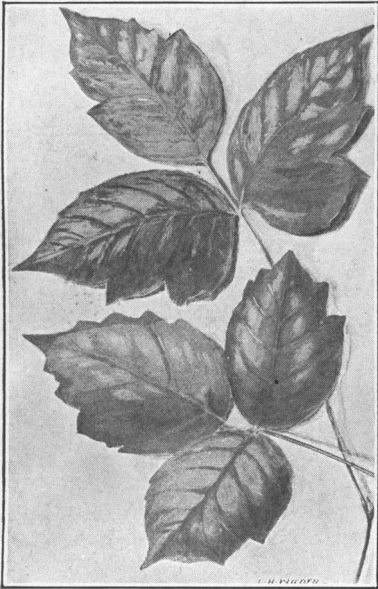


FIG. 5.—Leaves of poison ivy, *Rhus radicans* L.

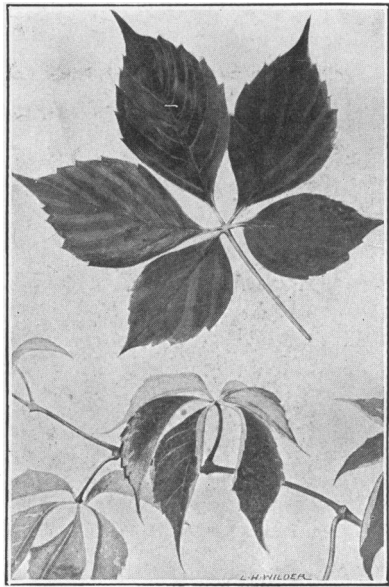


FIG. 6.—Leaves of Virginia Creeper, *Parthenocissus quinquefolia* L. Planch.



FIG. 7.—Poison sumac, *Rhus vernix* L.

4 or 5 feet, and has leaflets (Fig. 1) resembling leaves of the western oaks; but it is also found growing as a vine, and is sometimes called poison ivy. In the East, from New Jersey, Delaware, and Virginia, south and southwestward, the name of poison oak<sup>1</sup> is often used to distinguish from the poison ivy vine<sup>2</sup> (Fig. 2), a form growing as a bush (Fig. 3), with lobed leaflets somewhat suggestive of leaves of scrub oak; while westward from Minnesota, Nebraska, and Arkansas, to Washington, Montana, Colorado, and New Mexico, this name is applied to a low bush<sup>3</sup> or trailing shrub form (Fig. 4) which does not climb.

Familiarity with any one of the forms (Figs. 1 to 5) will enable even the careless observer to recognize poison ivy or poison oak wherever encountered, whether as a vine, trailing shrub or bush, or at least to avoid readily all plants bearing a suspicious resemblance to it. The vines attach themselves to trees, walls, fences, rocks, or any adjacent support by means of aerial rootlets, and arc without the twining tendrils found on many climbers. They sometimes climb to the tops of the highest trees, and are occasionally found with stems 3 or 4 inches in diameter. The forms growing as erect bushes, or shrubs with trailing underground roots, usually attain a height of a few inches to about 3 feet, but in favorable situations are often found as bushes of luxuriant growth 4 or 5 feet high. The leaves of all forms have stout, rather long stems, bearing 3 leaflets, 2 of which are opposite and short-stalked, while the third or terminal leaflet is long-stalked. The leaflets are from 1 to 4 inches long; dark green on the upper surface, lighter, sometimes with a velvety covering of fine hairs underneath, with smooth or more or less indented margins, and of the variable forms herein illustrated (Figs. 1 to 5). The tendency of the leaflets to form irregular, notched, and indented margins is an aid to the identification of the plants; and in forms with generally smooth margins, a deep notch or several indentations on one side of the leaflets (Fig. 5) are characteristics which often serve to confirm the identification. Small, inconspicuous, yellowish-green flowers, borne in loose branching clusters about 1 to 3 inches long, growing out of the angles between leaf stalks and plant stem or above scars along the sides of the branches, appear in early summer and are followed by the small, globular, smooth, green fruits which become white or ivory color as they ripen. These waxy fruits, which remain on the plants until late in the winter, are about one-fourth of an inch in diameter in the commoner forms. They are globular in shape, sometimes flattened or lopsided, and with the advance of the season have a tendency to dry and wrinkle, often losing their thin

<sup>1</sup> *Rhus quercifolia* (Michx.) Steud. The name *R. toxicodendron* has been applied to this plant by some authors, but is generally considered to refer to the poison ivy vine (*R. radicans*).

<sup>2</sup> *Rhus radicans* L.

<sup>3</sup> *Rhus rydbergii* Small. By some authors this is considered only a low form of *R. radicans*.

outer coating and revealing the single deeply grooved stone which they contain.

Poison ivy or poison oak in one or various forms infests practically all parts of the country except mountain elevations above about 6,000 feet and arid lands. It is found in fields, pastures, woodlands, and thickets, along roadways and streams, often also in city parks, cemeteries, and suburbs, sometimes mixed with other shrubbery in such a manner as to escape observation until attention is attracted to it by the occurrence of cases of poisoning. It adapts itself to the greatest variety of conditions, spreading through deep hollows and ravines, flourishing in dry soil and on hillsides, often spreading by underground roots from which small, erect shrubs arise, and showing the tendency to ascend trees or any support encountered in its growth. Its highly attractive foliage, which is red when the young leaves first unfold, becoming green with the advance of mild weather, and turning in autumn to beautiful shades of scarlet and orange, has led to its being preserved to some extent as an ornamental vine or shrub, and at times to the collection of its foliage by persons ignorant of its identity and injurious properties. Many cases of poisoning result in this way.

In the Eastern States, and westward as far as Wyoming and Texas, the Virginia creeper<sup>1</sup> (Fig. 6) is found generally in the same localities as the poison ivy vine, which it resembles somewhat in its habit of growth and in the shape of its leaflets. Probably because of this resemblance it has occasionally been reported as a source of ivy poisoning, but it is harmless to the touch and is readily distinguished from poison ivy by the fact that its leaves are divided into 3 to 5 leaflets to a stalk. Moreover, though it is sometimes supported by aerial rootlets like poison ivy, it has also numerous tendrils like those of vines of the grape family, of which it is a member, and its fruits, which are inedible, are blue in color, have red stems, and contain 2 or 3 seeds.

The fragrant, or sweet-scented, sumac, and the ill-scented sumac are *Rhus* shrubs with trifoliate leaves, resembling forms of poison ivy so closely that they may not be readily distinguished in some instances. Both differ from the poisonous *Rhus* species in their flowers, which appear in dense spikes before the leaves, and in their red fruit; they also differ in the aromatic properties indicated by their names. The fragrant sumac is found in rocky woods from Canada to Florida, and westward as far as Minnesota, Kansas, and Louisiana, while the "skunk bush" occurs from Illinois and Texas westward to Washington and California, growing in dry soil.

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<sup>1</sup> *Parthenocissus quinquefolia* (L.) Planch.

**Poison Sumac.<sup>1</sup>**

Poison sumac grows in moist ground, usually in swamps or along low, miry banks of streams and ponds. It occurs from the New England States south as far as Florida, and westward to Minnesota, Arkansas, and Louisiana, and is known under various local names such as poison dogwood, poison elder, poison ash, thunderwood, and poisonwood. It frequently grows as a tree 10 to 20 feet high, and may attain a height as great as 30 feet, with trunk 5 to 10 inches in diameter; but it is more abundant as a shrub, with several slender, clustered stems. The trunk has smooth, light-gray bark, while the young twigs are reddish brown when they first appear, turning to orange brown by the end of their first year, and the older branches have the gray color of the trunk. The leaves are about 7 to 14 inches long, and consist of a slender stalk bearing 7 to 13 leaflets, arranged opposite one another in pairs, with a single usually long-stemmed leaflet at the end, those at the side being attached to the stalk by short stems (Fig. 7). The leaflets, which are of an elongated oval shape, with entire margins, attain a size of 3 to 4 inches long and 1½ to 2 inches wide. When they first unfold in the spring they are of a bright orange color and have a velvety covering of minute hairs, especially along the margins and underneath. This covering soon disappears. At maturity the leaflets are dark green and glossy on the upper surface, with prominent scarlet midribs, and lighter green underneath. Early in summer minute yellowish-green flowers appear in narrow clusters, about 3 to 8 inches long, growing out of the angles of the leaf stems near the end of the branches, and are followed by shining ivory white or yellowish fruits, globular in shape but somewhat longer than thick, about ¼ inch in diameter, resembling those of poison oak and poison ivy already described, and containing a single yellow grooved stone. The foliage turns early in autumn to brilliant red, orange, and russet shades. The leaves fall early; but the drooping, long, slender clusters of pearly fruit remain, often until the following spring, and, with the light gray bark and pointed purplish winter buds, are means of identifying poison sumac in its winter state.

Those persons having little familiarity with the identity of trees and shrubs occasionally confuse poison sumac with the harmless sumacs, certain species of ash, elder, and various other shrubs and trees bearing somewhat similar foliage. They also confuse it with dogwood to which it bears no resemblance. The poison sumac leaves are, however, readily distinguishable from all of those plants, while the difference in character, appearance, and color of the fruits is such as to enable one to exclude them without difficulty. It is well to re-

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<sup>1</sup> *Rhus vernix* L.

member also that the poison sumac occurs on moist or swampy land, and in drier locations it is found only along the borders of swamps and bogs or where the ground is wet during part of the year.

Its loose, drooping clusters of flowers, and later of ivory-white fruits, are entirely different in appearance from those of the harmless sumacs of the region in which it grows. These latter produce flowers and fruits on densely covered upright terminal spikes which are of a conspicuous red shade in the fruiting stage. Aside from conspicuous differences in form, the number of leaflets into which the leaves of the harmless sumacs are divided, which ranges from 9 to 21 and 31 in the commoner species, as compared with 7 to 13 in the poison sumac, is a further aid in distinguishing them.

The statement that native forms of sumac with red fruit are harmless should, perhaps, be qualified with respect to a rare form occasionally found from North Carolina to Georgia, and which has been reported as poisonous by various writers and declared harmless by others. This is a low shrub 1 to 3 feet high, spreading by underground roots. Its leaves are 12 to 14 inches long, and consist of about 11 broadly oval leaflets about  $2\frac{1}{2}$  inches long and  $1\frac{1}{2}$  inches wide, stemless or very short stalked with the exception of the terminal leaflet which has a stalk three-fourths of an inch long with winged margins. Its flowers are produced in dense clusters at the ends of branches, and its fruit is bright scarlet when ripe, and covered with fine silky hairs.

A near relative of the above-described forms is the poison wood or hog gum-tree of the West Indies, also known as coral sumac, which occurs in the hummock lands of southern Florida. Its sap is said to be dangerously poisonous to touch, and inflammation of the skin is reported to have been caused by mere proximity to the plants. The plant is usually seen as a small tree, but sometimes attains a height of over 35 feet, with short trunk 2 feet thick. The bark is of a reddish brown color, separating into plate-like scales, between which the bright orange color of the inner bark is seen, and marked by dark spots caused by exudations of a resinous gum. The gum of this tree, collected by incising the bark, is employed medicinally to some extent as an emetic, diuretic, and purgative. The leaves are 9 to 10 inches long and consist of a stout stalk, thickened at the base, bearing 5 to 7 (or sometimes 3) oval or almost heart-shaped leaflets 1 to 4 inches long. The leaflets have short stalks, are glossy green on the upper surface and dull underneath, and have smooth margins. The tree produces small yellowish-green flowers in clusters about 10 inches long, followed by bright orange-colored, oblong, one-stoned fruits about three-fourths of an inch long.

### NATURE OF THE POISON.

The various toxic species of *Rhus* apparently cause skin irritation through the same toxic principle. The nature of this poison has long been a matter of study, but it now seems to be established that it is an oily principle, called toxicodendrol, which can be extracted from the leaves, roots, flowers, green fruits, and in fact all parts of the plant with the possible exception of the pollen and ripe fruit. Experiments have shown that the minutest quantities of this oil can produce poisoning. Consequently, contact of the body with the growth, however slight, may result in the transference to the skin of enough of the poisonous principle to exert its poisonous effects. It is not necessary that this contact should be direct, as an intermediate object can transfer the poison to the skin; for example, articles of clothing or farm implements which have brushed against the plants may be later handled, thus giving rise to poisoning, and the possibility of contracting it from horses, dogs, or other animals which have been in contact with the plants should not be overlooked.

While there is reason for believing that the nonvolatile toxicodendrol is the sole toxic principle concerned, it was formerly supposed that *Rhus* poisoning was caused by volatile emanations from the plants, and there is still much diversity of opinion concerning the matter. Apparently authentic cases of *Rhus* poisoning which appear to have originated without direct or indirect contact with the plants have been reported. Many persons who know the plants and are careful to avoid them are convinced that they have been poisoned by passing by them or observing them from a short distance. Cases of this kind are sometimes attributed to transference of the poison by minute particles or other dust from the plants, possibly pollen or leaf hairs, which might be borne through the air for considerable distance. Although it seems to have been shown conclusively that the poison is not formed or normally contained in either pollen or leaf hairs, this does not exclude the possibility that they might take it up by coming in contact with other parts of the plant. It is probable however, that many cases supposed to have originated in this way have actually been due to direct or indirect contact. The exact manner in which the poisoning has occurred may readily be overlooked, since in many instances the appearance of the eruption is delayed for several days and traces of the poison sufficient to produce injury may be conveyed by clothing or other articles long after contact with the plants. Numerous attempts to produce poisoning experimentally by emanations from *Rhus* plants, and from the oil itself, have been unsuccessful. On the other hand, there is excellent foundation for the popular belief that smoke from the burning plants will give rise to irritation, and some of the worst cases of *Rhus* poisoning undoubtedly originate in this manner.

Taken internally in toxic doses, the plant is reputed to have the properties of a violent irritant and narcotic poison. Cases of poisoning of children from eating the fruit have been reported. Horses and cattle eat poison-ivy foliage freely, apparently without any ill effects, at least from the relatively small amounts consumed under usual conditions.

#### SUSCEPTIBILITY.

It has long been a matter of observation that certain individuals possess a marked degree of resistance to the action of *Rhus* toxin. It is not strange that they should thus come to regard themselves as immune, although there is good reason for believing that absolute immunity does not exist. Experiments with persons of this type have shown that when they are subjected to prolonged exposure, or to the application of the toxic principle of the plant itself, they react to some degree and are therefore not immune.

That varying degrees of susceptibility to the poison exist, there can be no doubt; but here again we are on treacherous ground, as a person may be repeatedly exposed without noticeable symptoms only to have his pride humbled upon a subsequent exposure. Some individuals are not ordinarily susceptible to ivy but do react to sumac. Since the poison in the two plants is apparently the same, the difference is explained by the fact that the sumac generates and distributes the toxin in larger quantities than does the ivy. Likewise, certain individuals claim to be insusceptible to the leaves but admit that the smoke, which contains a finely divided but heavy dosage of the toxin, causes symptoms. The rule can be offered that whenever a large amount of toxin is deposited upon the skin, and the person is markedly susceptible, the reaction will be severe, whereas if the dosage is small and the susceptibility slight, the reaction will be mild, in fact so light in some cases as to be unnoticeable. The actual contact with the plant may occur in such a way as to cause little or no transference of the toxin, and consequently no noticeable effects in an individual who on another occasion may be severely poisoned through acquiring a heavier dosage, particularly from freshly bruised stems or leaves.

For the same reason the plants are most poisonous in the spring and summer when their acrid juice is abundant, although they retain their poisonous property even long after drying, and injury from old herbarium specimens is not uncommon. Certain local conditions, such, for example, as the thickness of the integument, and the state of the skin as regards perspiration at the time of exposure or subsequent thereto, may serve, however, to modify the irritation.



## SYMPTOMS.

The time elapsing between exposure and the earliest manifestation of symptoms varies from a few hours to 5 days or even longer, depending upon the susceptibility of the individual, the degree of exposure, and the amount of resistance of the parts involved.

The hands, forearms, and face are most often attacked, as they are especially subject to exposure. The feet and legs of barefoot children, for manifest reasons, also afford a favorite site for the eruption. Other regions of the body, such as the trunk, the genital organs of males, or the breasts of females, often become involved either as a result of direct exposure or the conveyance of the irritant to these parts by the hands, clothing, or through bathing. A tub bath is frequently the means of disseminating the irritant to sections of the body other than those primarily affected, and the disease in exceptional instances may even originate from contact with the clothing or skin of some other person, so that in a sense it is "catching."

The symptoms of an ordinary attack of Rhus poisoning vary considerably. The earliest evidence of trouble is a slight itching or burning sensation. As the inflammation develops, the itching and burning become more intense, at times causing marked annoyance and even disturbance of sleep. Scratching affords partial relief, but inasmuch as the inflammation is aggravated in this way and the poison may be distributed to unaffected sections, it should be resisted. Occasionally, patients of some phlegmatic type will be met with who make little complaint of either itching or burning, but usually these are the most distressing symptoms. In severe cases, or when infection by pus germs has occurred, actual throbbing pain may be present, especially in dependent parts.

The skin eruption shows wide diversity. It may consist merely of reddening of the involved surfaces, accompanied by swelling, the redness being in proportion to the degree of inflammation. More often small vesicles, containing serum, develop, usually in streaks or patches. The coalescence of several of these spots results in the formation of blebs, or blisters, which may cover a square inch or more of surface. When these serum-containing lesions rupture, their contents are discharged, producing a moist or weeping effect, such as is often seen in acute eczema. In moderately severe cases, pustules form, the pus pockets resulting from the entrance of germs which are normally present upon the skin or which have been introduced by scratching. Scab formation in the latter stages is common. Any or all of these lesions may accompany the inflammation so that the skin frequently presents a decidedly angry appearance. After the subsidence of the inflammation, peeling of the integument occurs, the layers of the skin often coming away in large patches, leaving a

denuded surface of the new skin beneath. The desquamation takes place within from a few days to a week or more after recovery, and may, in mild cases, be so slight as to escape observation.

Swelling and oedema of the parts involved nearly always occur. If the tissues making up the inflamed area are lax, as for example about the eye or scrotum, the swelling is apt to be pronounced. Quite commonly, one, or even both eyes may be entirely closed, the ear may become twice its customary size, the lips distorted, and other parts have their normal lines obscured. The swelling usually terminates as rapidly as it develops, and should not, under ordinary conditions, occasion undue alarm.

In certain complicated cases, where the invasion by pus germs is particularly severe, small abscesses may form. Such cases are accompanied by enlargement and tenderness of near-by glands, by pain, fever, and other evidences of constitutional disturbance. In rarer instances ulcers develop; complications of this character are apt to be followed by scars. Ordinarily, however, the disfigurement from Rhus poisoning is but temporary, the skin soon regaining its normal color and appearance. Occasionally when a person is exposed to the irritant at frequent intervals, a more or less chronic inflammation of the skin resembling eczema develops, and the sufferer is quite at a loss to know the source of his trouble.

On the whole, the skin eruption resulting from Rhus poisoning does not differ materially from that caused by a number of other irritant poisons, as, for example, such chemicals as bichloride of mercury, arsenic, and certain anilin compounds contained in dyes. It is well to know that identical effects are also sometimes produced by urine, pus, and other irritating bodily discharges. The seasonal prevalence of the inflammation, the history of exposure, and the fact that Rhus poisoning is much more common than that brought about by other agents, will give a clue to the character of the disturbance.

#### PREVENTION.

Much can be accomplished toward the protection of persons who come in contact with Rhus vines, and also in preventing or lessening the disastrous effects following exposure. Toxic plants can usually be handled with impunity if rubber gloves are worn, provided none of the dust or irritating material comes in contact with the body. Care should be exercised in removing the gloves from the hands, as they necessarily will harbor the toxic material and any contact with the skin is apt to cause trouble. After the gloves have been removed they should be thoroughly washed with soap and water, rinsed several times, and laid away. The water in which the infected gloves are washed will naturally contain the poisonous principle, hence it may not be entirely innocuous. Ordinary thick gloves of firm texture,

with gauntlets to protect the wrists, may be used in place of rubber gloves, but the protection afforded is not always absolute. Inasmuch as clothing which has come in contact with the leaves may serve for an indefinite period to convey the infection, a change of garments following exposure is to be recommended, this change to include shoes, which perhaps more often than any other article are a source of indirect contagion. The anointing of the parts to be exposed with cottonseed or olive oil, or vaseline, is said to serve as a protective means of considerable value. The oil must later be completely removed by repeated washing.

In some localities the belief is prevalent that eating poison ivy leaves in the spring will confer immunity during the year, but this seems at best a dangerous experiment and severe cases of poisoning contracted in this manner have been reported. In the present state of knowledge of the subject, therefore, it is believed that attempts to confer immunity by the ingestion of leaves or extracts of the plant should be undertaken only under the guidance of a physician.

One of the surest and best methods of individual prophylaxis is the use of soap and hot water. It has been found that the *Rhus* poison after being deposited upon the skin requires a certain time for penetration, and if this penetration can be prevented, irritation and the resulting eruption will not occur. Hot water and soap act mechanically, and if judiciously used constitute by far not only the most serviceable preventive but also one of the best curative agents which we at present possess.

The washing should be done as soon after exposure as possible. If considerable time has elapsed—that is, from 12 to 24 hours—this method should be adopted in the hope that at least a portion of the material which has not had time to penetrate will be removed. A soft brush, or better, pieces of gauze, should be used, although there is no objection to a wash rag, provided several are available. Much harm can be done with a stiff brush vigorously wielded, as in this way the minute particles of toxic material may be driven further into the superficial layers of the skin, resulting in more acute and pronounced inflammation than otherwise would have occurred. A heavy lather should be produced and the washing continued for 4 or 5 minutes. Several pledgets of gauze should be used, each being discarded in turn, in order that the poison may not be distributed by the cloth. For the same reason the water should be changed frequently, or running water used. To obviate the danger of disseminating the poison to unaffected parts, only the exposed or diseased area should be immersed, if this is feasible. After drying the area, it is well to repeat the process in 4 or 5 hours. Alcohol exerts a solvent action upon the toxin and can be similarly used, care being taken to flush the parts with an

excess of the liquid. The alcohol should first be diluted with an equal quantity of water. Ordinarily if either of these procedures is carefully followed, much if not all of the toxic material will be removed and the inflammatory reaction prevented or greatly lessened.

Where the exposure has been more general, a bath for the entire body, with the exercise of the precautions mentioned, followed by a change of clothing, is a good preventive measure. The hair should not be neglected. A shower is to be preferred for the reasons indicated, but if this is not practicable, the water in the tub should be changed at least twice. Bathing, if improperly performed, may result in the appearance of the rash on parts of the body not at first involved, although this secondary eruption is usually less intense than that at the original focus.

Handling of the body should be discouraged. Even in those cases where the hands are not involved they are liable to harbor the toxin, hence it is easy to understand why their movements should be restricted. This will be difficult with children, and most adults will meet with considerable inconvenience in the observance of this prohibition. Freedom of movement is without danger if the hands are properly scrubbed.

#### TREATMENT.

If the treatment previously outlined fails to prevent the development of the skin poisoning reaction, it is still possible by intelligent effort to alleviate in large measure the distressing symptoms. Before undertaking measures for relief, one should remember, however, that any treatment for disease is more intelligently administered by a skilled physician than by a person unskilled in medical knowledge. It is also well to recall that what is indicated in one case may be contraindicated in another, and that a particular stage of a disease may, and often does, require treatment which would be disastrous were it instituted at a later period. For these reasons, therefore, it is desirable in serious cases to secure competent medical advice, if such is obtainable, and to follow strictly the directions given. Where for any reason this is not feasible, the following treatment is recommended:

If the skin is highly inflamed or the eruption extensive, it is advisable to keep the patient in bed, as rest of an inflamed part invariably hastens cure. Exposure to the sun during hot weather increases perspiration and aggravates the inflammation, hence is to be avoided. The comfort of the patient will be increased if the clothing is thin, the bedding light, and the room kept cool. Care should be exercised to see that no part of the clothing irritates the inflamed area. It is well to maintain the bowels moderately free; for this purpose a Seidlitz powder before breakfast, as necessary, is beneficial. Summer weather diet—that is, plenty of fruit, cool drinks, and frozen desserts—is indicated, particularly if moderate fever accompanies the

inflammation. Should this or other constitutional symptoms, such as pain, headache, or loss of sleep, be present, suitable remedies are to be prescribed by the physician.

For the eruption itself, scores of remedies and numerous favorite prescriptions—many of which are claimed by their advocates to possess distinctive virtues, if not specific qualities—have been recommended. In spite of these claims it is necessary to state that no specific treatment for Rhus poisoning is yet available. The very multiplicity of preparations recommended, ranging in character from brine to brimstone, and also including the juice of at least 20 different plants, in itself constitutes reasonable proof of the correctness of the above statement. The irritation is in its nature self-limited, usually requiring only a week or 10 days for its entire subsidence, hence it is easy to understand how numerous so-called cures have arisen.

For the relief of itching nothing is better than the immersion of the inflamed surface in hot water for several minutes, gradually increasing the temperature until the water is as hot as can be borne. If the eruption is on the face, the hot water can be applied by means of a thick towel. As previously mentioned, the soap-and-water treatment is distinctly curative in those cases where all of the poison has not penetrated.

It is better that the inflamed area should be left exposed to the air rather than tightly bandaged. If the bandages are kept moist with a solution of cooking soda or borax (a teaspoonful dissolved in a cup of water), or with other solutions to be mentioned, there is no objection to their use. In any event they should be frequently changed, more especially when pus has formed, or when the secretion is excessive.

Ointments, in the acute stage, should not be used; compounds with a fatty base serve to scatter the toxic oil and thus tend to aggravate rather than relieve the inflammation. In the latter stages of the disease, after the toxic material has exhausted itself and a certain amount of inflammatory reaction still persists, soothing or astringent ointments are of value.

Hot solutions of permanganate of potash (of 2 per cent strength if the skin is intact, but only half as strong if the skin is broken) have been much in vogue. The drug is thought to exert a direct action upon the poison in much the same manner as vinegar counteracts the effect of an alkali. One disadvantage of permanganate is that it stains the skin a mahogany brown of greater or less intensity; but this stain in time will wear off, or it can be immediately removed by the application of lemon juice.

A 10 per cent solution of hyposulphite of soda, photographer's fixing liquid, applied as a wet dressing, gives in many instances beneficial results. A similar solution of sulphate of magnesium, Epsom salts, is entirely harmless and allays the inflammation as satisfactorily as most other remedies. A lotion made of 1 part of the fluid extract of *Grindelia* to 10 parts of water, introduced as a specific, has likewise been extensively used with varying results. Since applications of solution of sugar of lead, a favorite treatment in earlier days, generally prove disappointing after the inflammation has developed, and involve the risk of lead poisoning if used over extensive areas, they are not recommended. If used in the early stages it

should be remembered that lead salts precipitate the toxin and the treatment should therefore be followed by washing to remove any traces of the poison thus deposited.

The blebs or blisters, if fully developed, should be opened with a sterile needle and the clear serum expressed with a pledget of absorbent cotton. This serum is harmless and does not spread the infection to uninvolved areas. The integument, however, should not be removed until the new skin beneath is well formed and its sensitiveness diminished. In the late stages the application of a mild boric acid or zinc oxide ointment hastens the cure.

#### IMPORTANCE OF DESTROYING POISON IVY.

The more general destruction of all noxious vegetation is to be encouraged by every possible means. Every landowner should feel that he is in a measure responsible for illness resulting from exposure to irritating plants growing upon his premises, even if such illness or incapacity does not happen to occur among members of his own household, and he should adopt such means as are necessary for the elimination of this dangerous material. Communities should see that poison ivy flourishing by public waysides and in parks is destroyed. It is, of course, realized that this destruction can not always be brought about in a single season, as these plants are particularly persistent in their growth, frequently springing up in diminished amount year after year even when they are supposed to be totally destroyed; but if continued effort in this direction is made, ultimate success is sure.

In dealing with this problem of eradication in rural districts, it may be possible to secure the cooperation of a group of neighbors whose combined efforts will greatly enhance the effectiveness and thoroughness of the work. It is not unusual to find that a single vine growing close to a frequented walk, or perhaps in the farmer's doorway, is the cause during the season for many cases of suffering, and the country boy who has undergone seasonal torment from ivy poisoning can frequently vividly recall the identical vine which gave rise to his attacks. There is little reason for permitting dangerous conditions of this character to persist. The fact that climbing vines of the *Rhus* family enhance the beauty of the surroundings should not stand in the way of destructive measures, as their very beauty, enticing as it is to the uninitiated, makes them the more dangerous. Since relatively few people are able to recognize the various toxic plants—and even when this recognition is possible, exposure can not always be avoided—destruction of those plants is the only sure means of prevention.

Knowledge concerning harmful plants and their identification may well be disseminated as a part of the courses of instruction in public schools. The differences between poison ivy and the harmless Virginia creeper, and the characters by which the several forms of

sumac may be contrasted, afford a most interesting addition to natural-science courses and can easily be made the topic of a lesson of practical value even for children in the lower grades. Considerable success has been achieved in this way in teaching children in malarious regions to distinguish between disease-carrying and nondisease-carrying mosquitoes. Lessons of this character constitute a profitable form of nature study and can be made particularly attractive even to the dullest pupil.

#### **Methods of Eradication.**

For the removal of poison ivy it is sometimes possible to employ persons who are not readily susceptible to Rhus poisoning, but the exercise of the protective measures already suggested should enable anyone to undertake the work without injury. Those who are highly susceptible to the slightest exposures, and who on that account have special cause to fear the plants, may incur less risk by undertaking the work of eradication in late fall after the sap is out of the plants, which are then less likely to produce injury.

The means to be employed may be determined largely by convenience. The most rapid and effective method of dealing with isolated clumps of poison ivy is simply to grub them out, taking care to remove thoroughly the running rootstocks, which, if left in the ground would soon produce another crop of the plants. In infested fields the plants may be destroyed by plowing up the soil and planting cultivated crops. The plants can be killed by mowing repeatedly so as to exhaust the root system by destroying the foliage as fast as it appears, but to be successful, the mowing should be carried out persistently.

The use of kerosene has been recommended by the Forest Service of the United States Department of Agriculture, after thorough investigation and trial, as an effective means of destroying poison ivy in situations where injury to other plants is not to be feared. In many cases one thorough wetting with this agent, applied by sprinkler or spraying pump, will be sufficient. Where the growth is so thick that only a part of the foliage is reached by the first treatment, a second application is sometimes necessary. The effectiveness of the treatment will be increased if the soil is disked or cut up slightly so as to expose the roots to the action of the kerosene. It must be remembered that kerosene will injure or destroy all vegetation and is therefore not available for use near valuable trees. On the other hand, the usefulness of the soil is not long impaired, locations where the ivy has been exterminated by this method in the spring or summer being found covered with new growth of other plants by fall. Crude petroleum, which has the advantage of being less expensive than kerosene, has been found equally effective, but it is less suitable in places where it is desired to avoid prolonged detriment to the soil.

In work undertaken by the Massachusetts Experiment Station it was found that arsenite of soda could be used very successfully to kill poison ivy on stone walls, buildings, and along fences, and on large trees over 6 to 10 inches in diameter without injury to the trees. In these experiments a solution prepared by dissolving 1 to 2 pounds of sodium arsenite in 10 gallons of water was found effective. For destroying patches of poison ivy, 10 gallons of this solution will be required per square rod. It has the disadvantage of being equally injurious to small trees and other desirable vegetation, and may render the land useless for cultivation during a prolonged period. As the preparation is poisonous, care should be exercised to keep horses and other live stock away from the poisoned plants.

Other methods employed include spraying with hot brine of a strength of 3 pounds of salt per gallon of water, repeated several times during the spring or summer at intervals of 10 days to 2 weeks, or the application of strong chemicals, such as concentrated sulphuric acid. The use of corrosive chemicals, however, involves a risk of injury to the user which is needless in view of the availability of safer means of eradication.

#### REFERENCES.

- Schamberg, J. F., The Desensitization of Persons against Ivy Poisoning: Journal of the American Medical Association, vol. 73, No. 16, p. 1213, 1919.
- McNair, J. B., Poisonous Principle of Poison Oak: Journal of the American Chemical Society, vol. 38, pp. 1417-1421, 1916.
- Bessey, Charles E., The Volatile Nature of the Toxic Constituent of Poison Ivy: American Journal of Pharmacy, vol. 86, pp. 112-114, 1914.
- Adelung, Edward von, An Experimental Study of Poison Oak: Archives of Internal Medicine, Vol. II, pp. 148-184, 1913.
- Warren, L. E., Some Observations on the Pollen of Poison Sumac: Journal of Pharmacy, vol. 85, pp. 545-549, 1913.
- Rost and Gilg, Der Giftsumach, *Rhus toxicodendron* L., und seine Giftwirkungen: Berichte der Deutschen Pharmazeutische Gesellschaft, Jahrg. 22, pp. 296-358, 1912.
- Stone, G. E., Effects of Chemicals and Proprietary Preparations on Weeds: Massachusetts Expmt. Sta. Report, pp. 63-72, 1908. Poison Ivy: Mass. State Board of Agriculture, Nature Leaflet No. 9, 1915.
- Stevens and Warren, Poison Sumac: American Journal of Pharmacy, vol. 79, pp. 499-522, 1907.
- Syme, W. A., Some Constituents of the Poison Ivy Plant: Johns Hopkins University, Thesis, 1906.
- Stevens, A. B., Japanese Lac: American Journal of Pharmacy, vol. 73, pp. 53-68, 1906.
- Schwalbe, K., Die giftigen Arten der Familie Rhus: Münchener medizinische Wochenschrift, vol. 49, p. 1616, 1902.
- Pfaff, Fr., On the Active Principle of *Rhus toxicodendron* and *Rhus venenata*: Journal of Experimental Medicine, vol. 2, p. 181, 1897. Ivy Poisoning and its Treatment: Rhodora, vol. 4, pp. 43-45, 1902.
- Chesnut, V. K., Principal Poisonous Plants of the United States: U. S. Department of Agriculture, Division of Botany, Bulletin 20, 1898.
- White, James C., Dermatitis Venenata, Boston, 1887.



## A SIMPLE APPARATUS FOR OBTAINING BLOOD SPECIMENS.

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Several methods of securing specimens of blood for laboratory examination have been used with more or less success since the universal adoption of the Wasserman and other serological reactions in the diagnosis of disease. Most of these methods have been evolved to meet special requirements, and they vary from the simple insertion of a needle into the vein and the draining of blood into a test tube, to several complicated methods devised to meet special conditions. One of the most widely known of the methods is that of Kiedel, in which a vacuum tube is used. The following method is based on the vacuum principle, but is simpler and more economical than the Kiedel tube.

The apparatus is composed of the following parts: An all-glass (or, preferably, metal) stopcock about  $\frac{1}{2}$  inch in length; an all-metal syringe, 15 cc. capacity, such as those used for irrigations in ear, nose, and throat work; 3 short pieces of rubber tubing, about 1 inch in length,  $\frac{3}{16}$ -inch bore; a 16-gauge luer needle; and several test tubes of the desired capacity, drawn out at the open end to a diameter of about  $\frac{1}{4}$  of an inch (Fig. 1A).

For use it is assembled as follows:

The stopcock is connected with the drawn-out end of the test tube by means of one of the short sections of rubber tubing. The second section of tubing is connected with the outlet of the metal syringe, and the third section of tubing is connected with the butt end of the luer needle. The apparatus is now ready for use. The outlet of the stopcock is connected with the outlet of the syringe, and a vacuum is secured by pulling out on the plunger and then closing the stopcock (Fig. 1B). The needle is then attached to the stopcock outlet and the apparatus is ready for drawing the specimen (Fig. 1C). After the insertion of the needle the stopcock is opened and the blood is drawn into the tube by the vacuum. The tube can then be sealed in the flame as is done with the Kiedel tube.

The advantages claimed for this method are important and are as follows:

1. The cost is less than that of the Kiedel tube. While the initial cost may be more, the subsequent cost is only that of the containers for the specimen.

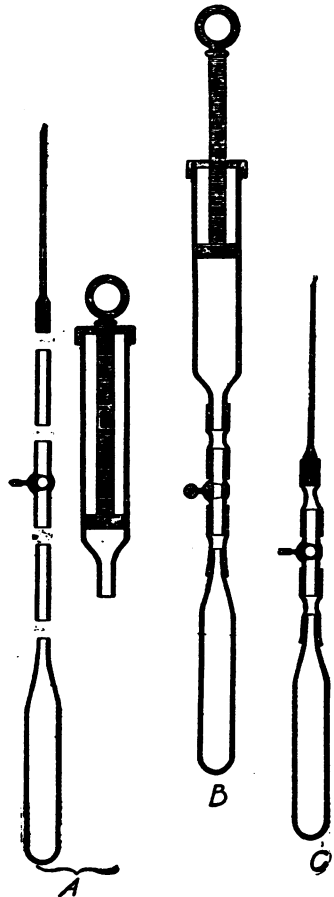


FIG. 1.

2. If after inserting the needle in the arm and opening the stopcock it is found that the vein has not been tapped, the needle can be left in place and the stopcock and tube removed while a new vacuum is secured. Under the same circumstances with the Kiedel apparatus the tube is worthless, and failure to reach the vein, which is generally discovered after the tube is broken, means an extra expense together with an added discomfort to the patient caused by the withdrawal and reinsertion of the needle.

3. Any amount of blood can be taken at one time; the amount is limited only by the size of the container.

4. There is a certainty of securing a specimen at the first puncture, no matter how small the vein—a feature to be considered when dealing with the hypersensitive patient and those persons in whom the vein can not be punctured by ordinary methods.

5. Last, but not least, the needle can be held firmly in place while the stopcock is opened, overcoming the great objection to the Kiedel tube that the needle may be moved through the wall of the vein while breaking the glass, and the danger of withdrawing the needle from the vein when pulling on the plunger while using the luer syringe method.

The method here described is in use in several of the clinics of the South, and from all reports it is proving not only entirely satisfactory, but is found to be cheaper than the Kiedel tube.

The apparatus is easily cleaned and practically no attention is required to keep it in perfect condition; and in the larger clinics it is only necessary to have a number of stopcocks and needles.

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## CHILD HEALTH SUPERVISION.

Owing to the growth of interest manifested in child-welfare activities by State and local departments of health, as evidenced by the establishment of divisions of child hygiene in an increasing number of those departments, it is not inappropriate at this time to invite attention to maternity and infant welfare schemes that are being considered or adopted in other countries. The following extracts are taken from *The Medical Officer* of January 10, 1920.

### Nursing Scheme.

In an attempt to coordinate the activities of the volunteer nursing associations with those of the legally constituted health authorities, the following maternity and infant welfare nursing scheme has been adopted for the county of Pembrokeshire, South Wales:

1. A central committee to be formed of 12 members, 6 of whom shall be appointed by the county council and 6 by the South Wales Nursing Association.

**2. The duties of the central committee to be—**

(a) Engaging and dismissing nurses working under the scheme;

(b) Responsibility for starting new associations in districts where there are none at present;

(c) Arranging for the grouping of parishes and the consideration of the number of nurses required for each district.

3. The county council to pay £90 per annum to each local association for each nurse employed, as sanctioned by the central committee, and, in addition, a sum not exceeding £25 to each new association for initial expenses. The local associations to undertake to carry out the work required by the public-health committee and the education committee of the county council as scheduled.

4. The county council grants to be paid quarterly to the secretary of each local association. Each local association to pay its own nurse or nurses.

5. Each local association to have a committee of not less than six members, of whom the county councillor representing the district shall be one, and also any alderman of the county council living in the district.

6. Each local association to present a balance sheet annually to the central committee, and to send in reports of the work of the nurse as may be required by the county medical officer of health.

7. A superintendent nurse to be engaged by the central committee when the scheme is in full working order, if necessary.

9. The county council to give a grant to the nursing association for the training of nurses for work in the county.

10. For the purpose of obtaining grants from the various government departments concerned the £90 should be divided equally among the following five branches of work—namely, midwifery, public health, tuberculosis, school nursing, and school visiting, and the initial grant of £25 for instruments, etc., should be charged as a maternity and child-welfare expense.

**Assistance in Providing Milk.**

In view of the large number of applications received from expectant and nursing mothers for assistance in providing milk and of preparing a scheme for supplying milk at cost price, and in view of the increase in the maximum price of same, the maternity and child-welfare sub-committee of the Swindon town council recommended the following schedule:

(a) That not more than 1½ pints of milk be provided daily, free of cost, for children under 1½ years of age, where the total weekly income of the family, after deducting the amount paid for the rent of the house, does not exceed 7s. 6d. per head. (b) That not more than 1½ pints of milk be provided daily at half cost for children under 1½ years of age, where the total weekly income of the family, after deducting the amount paid for the rent of the house, is between 7s. 6d. and 10s. per head. (c) That the consideration of the question of providing a supply of milk for children between 1½ and 5 years of age be deferred for the present. (d) That not more than 1 pint of milk be provided

daily free of cost to expectant and nursing mothers where the total weekly income of the family, after deducting the amount paid for the rent of the house, does not exceed 7s. 6d. per head. (e) That not more than 1 pint of milk be provided daily at half cost to expectant and nursing mothers, where the total weekly income of the family, after deducting the amount paid for the rent of the house, is between 7s. 6d. and 10s. per head.

On approval of the recommended scheme by the ministry of health wide publicity and notice to expectant and nursing mothers is to be given by handbills and otherwise.

#### Instruction.

The following is a suggested list of suitable subjects for talks imparting useful information collectively to mothers at welfare stations, taken from a report by P. Caldwell Smith, which may be found useful:

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|---|---|
| <ul style="list-style-type: none"> <li>Baby clothes.</li> <li>Best food for Britons.</li> <li>Breast feeding.</li> <li>Care of the body.</li> <li>Care of the feet.</li> <li>Care of the teeth, eyes, nose, and throat.</li> <li>Childhood insurance.</li> <li>Chicken pox and mumps.</li> <li>Clothing of infants and young children.</li> <li>Common ailments.</li> <li>Convulsions.</li> <li>Cleanliness of person, clothes, surroundings.</li> <li>Day nurseries.</li> <li>Early symptoms of infectious diseases.</li> <li>Feeding of children from 9 months to 3 years of age.</li> <li>First aid at home.</li> <li>Flies.</li> <li>Food substitutes.</li> <li>Food values.</li> <li>General hygiene.</li> <li>Habits and need for early training.</li> <li>Hay-box cooking [fireless cooker].</li> <li>Hand-feeding.</li> <li>Housing.</li> <li>How infectious diseases are spread.</li> <li>How to wash woolen garments.</li> <li>Hygiene of pregnancy.</li> </ul> | <ul style="list-style-type: none"> <li>Indigestion in infants.</li> <li>Infection and disinfection.</li> <li>Influenza.</li> <li>Infantile diarrhea.</li> <li>Labor-saving devices.</li> <li>Measles.</li> <li>Open-air schools.</li> <li>Ophthalmia neonatorum.</li> <li>Rashes a baby can have.</li> <li>Rickets: How caused.</li> <li>Skin, The.</li> <li>Sunshine and fresh air.</li> <li>Superstitions of lying-in period; need for proper nourishment.</li> <li>Tonsils and adenoids.</li> <li>Tuberculosis.</li> <li>Vaccination.</li> <li>Vermin of all sorts; how to get rid of them.</li> <li>Whooping cough.</li> </ul> <hr style="width: 10%; margin: 10px auto;"/> <ul style="list-style-type: none"> <li>National kitchens.</li> <li>Organizations in this borough to help mothers and children.</li> <li>Work of welfare centers and how they help mothers.</li> <li>What did each mother do to practice economy in war time?</li> </ul> |
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For purpose of comparison, the estimated cost of providing milk as outlined is presented. The cost of providing  $1\frac{1}{2}$  pints of milk daily for 12 months, free of cost, for 50 children under  $1\frac{1}{2}$  years of age (as mentioned in par. a) would be £568, 15s., and that the cost of providing  $1\frac{1}{2}$  pints of milk daily for 12 months for 50 children under  $1\frac{1}{2}$  years of age, at half cost (as mentioned in par. b), would be £284, 7s., 6d. The medical officer of health also estimates that the cost of providing 1 pint of milk daily for 12 months for 100 expectant and nursing mothers (as mentioned in clause d) would be £760, and the cost of providing 1 pint of milk daily for 12 months for 100 expectant and nursing mothers (as mentioned in clause e) at half cost would be £380.

# 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. 7, 1920.

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

ALABAMA.		Cases.	CALIFORNIA—continued.	
Cerebrospinal meningitis.....		2	Smallpox—Continued.	Cases.
Chicken pox.....		11	Los Angeles County.....	5
Diphtheria.....		18	Martinez.....	8
Influenza.....		2,366	Marysville.....	4
Malaria.....		1	Riverside County.....	9
Measles.....		20	San Francisco.....	23
Mumps.....		2	Typhoid fever.....	4
Pneumonia (all forms).....		42		
Scarlet fever.....		10	CONNECTICUT.	
Smallpox.....		29	Cerebrospinal meningitis:	
Tuberculosis (pulmonary).....		14	New Haven.....	1
Typhoid fever.....		4	Chicken pox.....	41
Whooping cough.....		17	Conjunctivitis.....	1
			Diphtheria:	
ARKANSAS.			Fairfield County—Bridgeport.....	12
Chicken pox.....		21	Hartford County—Hartford.....	19
Diphtheria.....		3	New Haven County—	
Hookworm.....		1	New Haven.....	5
Malaria.....		16	Waterbury.....	6
Measles.....		25	Scattering.....	24
Ophthalmia neonatorum.....		1	Influenza:	
Pneumonia.....		12	Fairfield County.....	676
Scarlet fever.....		1	Hartford County.....	411
Smallpox.....		10	Litchfield County.....	98
Tuberculosis.....		5	Middlesex County.....	94
Typhoid fever.....		7	New Haven County.....	824
Whooping cough.....		7	New London County.....	362
			Tolland County.....	9
CALIFORNIA.			Windham County.....	297
Cerebrospinal meningitis:			Lethargic encephalitis.....	2
Oakland.....		1	Measles:	
San Francisco.....		2	Fairfield County—	
Influenza.....		7,420	Bridgeport.....	10
Leprosy:			Danbury.....	9
Santa Clara County.....		1	Norwalk.....	4
Pellagra.....		1	Stamford.....	19
Smallpox:			Hartford County—	
Chico.....		8	East Hartford.....	4
Kings County.....		5	Enfield.....	27
Long Beach.....		9	Hartford.....	10

CONNECTICUT—continued.	
<b>Measles—Continued.</b>	
<b>Hartford County—Continued.</b>	
	Cases.
New Britain.....	5
Plainville.....	21
Southington.....	15
<b>Litchfield County—</b>	
North Canaan.....	4
Winchester.....	19
<b>New Haven County—</b>	
Ansonia.....	28
Hamden.....	13
New Haven.....	48
<b>New London County—</b>	
East Lyme.....	4
New London.....	13
Norwich.....	15
Scattering.....	28
Mumps.....	29
<b>Pneumonia:</b>	
<b>Fairfield County—</b>	
Shelton.....	15
Stamford.....	5
<b>Hartford County—</b>	
Bristol.....	4
Canton.....	6
Hartford.....	11
Manchester.....	6
New Britain.....	12
<b>New Haven County—</b>	
Hamden.....	4
Meriden.....	9
Waterbury.....	6
Naugatuck.....	17
<b>New London County—</b>	
Groton.....	7
New London.....	22
Norwich.....	17
<b>Windham County—Putnam.....</b>	
Scattering.....	19
Poliomyelitis—Woodstock.....	1
<b>Scarlet fever:</b>	
<b>Hartford County—</b>	
Hartford.....	7
New Britain.....	8
Windsor.....	9
<b>New Haven County—</b>	
New Haven.....	4
Waterbury.....	28
Scattering.....	24
Septic sore throat.....	1
Tuberculosis.....	38
Whooping cough.....	51
<b>DELAWARE.</b>	
Chicken pox.....	2
Diphtheria.....	1
Influenza.....	43
Measles.....	70
Mumps.....	2
Pneumonia.....	12
<b>Scarlet fever:</b>	
Laurel.....	5
Wilmington.....	1
Smallpox.....	1
Tuberculosis.....	2
Whooping cough.....	4

FLORIDA.		Cases.
Diphtheria.....		3
Dysentery.....		1
Influenza.....		1,420
Malaria.....		6
Pneumonia.....		67
Smallpox.....		7
Typhoid fever.....		4
<b>GEORGIA.</b>		
Chicken pox.....		26
Conjunctivitis (acute infectious).....		3
Diphtheria.....		7
Dysentery (amebic).....		1
Dysentery (bacillary).....		1
Favus.....		1
German measles.....		2
Hookworm.....		74
Influenza.....		7,809
Malaria.....		9
Measles.....		29
Mumps.....		6
Pneumonia.....		167
Poliomyelitis.....		2
Scarlet fever.....		14
Septic sore throat.....		10
Smallpox.....		12
Tuberculosis (pulmonary).....		23
Typhoid fever.....		14
Whooping cough.....		16
<b>ILLINOIS.</b>		
<b>Cerebrospinal meningitis:</b>		
Chicago.....		4
<b>Diphtheria:</b>		
Chicago.....		123
Evanston.....		6
Scattering.....		60
<b>Influenza:</b>		
Chicago.....		597
Scattering.....		6,640
<b>Lethargic encephalitis:</b>		
Chicago.....		4
Compton.....		1
Decatur.....		1
<b>Pneumonia:</b>		
Chicago.....		257
Scattering.....		313
<b>Scarlet fever:</b>		
Chicago.....		235
Quincy.....		7
Riverside.....		4
Woodstock.....		8
Scattering.....		65
<b>Smallpox:</b>		
Chicago.....		5
Hancock County—Pilot Knob Town- ship.....		6
Jacksonville School for Deaf.....		7
Kendall County—Fox Township.....		5
Scattering.....		44
Typhoid fever.....		9
<b>INDIANA.</b>		
<b>Cerebrospinal meningitis:</b>		
Eikhart County.....		2
<b>Diphtheria:</b>		
Lake County.....		13
Scattering.....		19

INDIANA—continued.	
Influenza:	Cases.
Clay County.....	250
Grant County.....	119
Hendricks County.....	275
Jennings County.....	158
Martin County.....	100
Owen County.....	300
Putnam County.....	130
Wabash County.....	129
Wells County.....	672
White County.....	147
Scattering.....	1,624
Measles:	
Bartholomew County.....	18
Delaware County.....	58
Grant County.....	16
Greene County.....	26
Jay County.....	23
Lake County.....	14
Marion County.....	109
Switzerland County.....	20
Vigo County.....	29
Wabash County.....	58
Wayne County.....	26
Rabies in animals:	
Greene County.....	1
Scarlet fever: *	
Allen County.....	4
Bartholomew County.....	6
Carroll County.....	8
Clay County.....	4
Elkhart County.....	17
Floyd County.....	5
Grant County.....	4
Kosciusko County.....	6
Lake County.....	12
Marion County.....	24
Monroe County.....	4
Shelby County.....	4
St. Joseph County.....	9
Tippecanoe County.....	6
Wabash County.....	10
Warrick County.....	4
Scattering.....	45
Smallpox:	
Delaware County.....	6
Grant County.....	4
Lake County.....	4
Marion County.....	8
Putnam County.....	5
Spencer County.....	7
St. Joseph County.....	7
Vanderburg County.....	6
Wabash County.....	26
White County.....	11
Scattering.....	26
IOWA.	
Chicken pox.....	1
Diphtheria.....	18
Influenza.....	869
Measles:	
Ackley.....	4
Council Bluffs.....	6
Scattering.....	8
Mumps.....	4
Pneumonia.....	6

IOWA—continued.	
Polioomyelitis:	Cases.
Van Buren County.....	1
Scarlet fever:	
Council Bluffs.....	5
Des Moines.....	5
Hamilton County.....	4
Scattering.....	35
Smallpox:	
Davenport.....	23
Mason City.....	12
Story County.....	8
Scattering.....	28
Whooping cough.....	2
KANSAS.	
Diphtheria.....	177
Influenza.....	10,026
Scarlet fever.....	85
Smallpox.....	102
LOUISIANA.	
Cerebrospinal meningitis.....	1
Diphtheria.....	9
Influenza.....	3,153
Pneumonia.....	44
Scarlet fever.....	8
Smallpox.....	45
Typhoid fever.....	7
MAINE.	
Chicken pox.....	25
Diphtheria.....	6
Influenza:	
Bath.....	171
Farmington.....	103
Freeport.....	120
Hallowell.....	105
Lakeview.....	105
Mount Desert.....	120
Oldtown.....	100
Paris.....	176
Presque Isle.....	100
Sanford.....	148
South Portland.....	403
Van Buren.....	150
Scattering.....	1,901
Measles:	
Lebanon.....	14
North Berwick.....	41
Oxford.....	9
Scattering.....	7
Mumps.....	37
Pneumonia.....	139
Scarlet fever:	
Norway.....	10
Presque Isle.....	4
Scattering.....	12
Smallpox.....	4
Tuberculosis.....	4
Typhoid fever.....	6
Whooping cough.....	17
MARYLAND. <sup>1</sup>	
Chicken pox.....	62
Diphtheria.....	51
German measles.....	5
Influenza.....	4,758

<sup>1</sup> Week ended Friday.



MARYLAND—continued.		Cases.	NEW YORK—continued.		Cases.
Malaria.....		1	Diphtheria.....		169
Measles.....		235	Influenza.....		11,304
Mumps.....		30	Measles:		
Ophthalmia neonatorum.....		1	Westchester County.....		225
Pellagra.....		1	Scattering.....		653
Pneumonia (all forms).....		573	Pneumonia.....		1,689
Scarlet fever.....		85	Poliomyelitis:		
Septic sore throat.....		2	Rochester.....		1
Smallpox.....		1	Scarlet fever.....		194
Trachoma.....		4	Smallpox—Buffalo.....		4
Tuberculosis.....		58	Typhoid fever.....		9
Typhoid fever.....		1	Whooping cough.....		186
Whooping cough.....		47			
<b>MINNESOTA.</b>			<b>NORTH CAROLINA.</b>		
Cerebrospinal meningitis.....		3	Cerebrospinal meningitis.....		3
Smallpox.....		5	Chickenpox.....		51
<b>MONTANA.</b>			Diphtheria.....		23
Cerebrospinal meningitis.....		1	Measles.....		104
Diphtheria.....		2	Pneumonia (all forms).....		455
Influenza.....	1,400		Scarlet fever.....		26
Pneumonia.....	18		Septic sore throat.....		2
Scarlet fever.....	36		Smallpox.....		100
Smallpox.....	28		Typhoid fever.....		3
Typhoid fever.....	1		Whooping cough.....		95
<b>NEBRASKA.</b>			<b>VERMONT.</b>		
Chicken pox.....		18	Chicken pox.....		10
Cerebrospinal meningitis.....		1	Diphtheria.....		4
Diphtheria:			Influenza.....		1,314
Omaha.....		5	Measles.....		95
Scattering.....		8	Mumps.....		156
Influenza.....		3,272	Pneumonia.....		59
Measles:			Scarlet fever.....		7
Benkelman.....		7	Typhoid fever.....		3
Lexington.....		7	Whooping cough.....		31
Lincoln.....		39			
Omaha.....		12	<b>VIRGINIA.</b>		
Scattering.....		4	Smallpox:		
Mumps.....		13	Bland County, several.....		
Pneumonia.....		6	Giles County, several.....		
Scarlet fever:			Southampton County.....		1
Dalton.....		14	Stafford County, several.....		
Elgin.....		4	Washington County.....		8
Lincoln.....		5	Wise County, several.....		
Omaha.....		32	<b>WASHINGTON.</b>		
Scattering.....		22	Chicken pox.....		76
Smallpox:			Diphtheria.....		17
Brownville.....		16	Influenza.....		4,596
Chappell.....		5	Measles.....		276
Lincoln.....		30	Mumps.....		72
Omaha.....		10	Pneumonia.....		256
Sidney.....		5	Scarlet fever.....		80
Scattering.....		44	Smallpox.....		166
Whooping cough.....		1	Tuberculosis.....		4
<b>NEW JERSEY.</b>			Typhoid fever.....		3
Influenza.....		2,798	Whooping cough.....		31
Measles: Unusually prevalent through the State.			<b>WEST VIRGINIA.</b>		
Pneumonia.....		850	Diphtheria.....		15
<b>NEW YORK.</b>			Measles:		
(Exclusive of New York City.)			Wheeling.....		36
Cerebrospinal meningitis:			Scattering.....		3
Aurora.....		1	Scarlet fever:		
Larchmont.....		1	Grafton.....		4
Mamaroneck.....		1	Scattering.....		8
			Smallpox:		
			Beckley.....		8
			Huntington.....		4

WEST VIRGINIA—continued.

Smallpox—Continued.	Cases.
Salem.....	14
Scattering.....	3
Typhoid fever.....	3

WISCONSIN.

Milwaukee:	Cases.
Cerebrospinal meningitis.....	1
Chicken pox.....	30
Diphtheria.....	17
Influenza.....	27
Measles.....	28
Scarlet fever.....	38
Smallpox.....	12

WISCONSIN—continued.

Milwaukee—Continued.	Cases.
Tuberculosis.....	23
Whooping cough.....	42
Scattering:	
Chicken pox.....	39
Diphtheria.....	16
Influenza.....	6,247
Measles.....	387
Ophthalmia neonatorum.....	1
Scarlet fever.....	139
Smallpox.....	93
Trachoma.....	1
Tuberculosis.....	13
Typhoid fever.....	5
Whooping cough.....	67

Kentucky Report for Week Ended Feb. 14, 1920.

Cerebrospinal meningitis:	Cases.
Clark County.....	1
Jefferson County.....	1
Kenton County.....	1
McLean County.....	2
Owsley County.....	1
Chancroid.....	2
Chicken pox.....	55
Diphtheria:	
Jefferson County.....	12
Scattering.....	17
Dysentery.....	2
Erysipelas.....	1
Gonorrhoea.....	63
Influenza:	
Bell County.....	108
Boyd County.....	338
Caldwell County.....	120
Campbell County.....	125
Carlisle County.....	166
Daviss County.....	106
Franklin County.....	347
Grant County.....	123
Graves County.....	128
Harrison County.....	194
Jefferson County.....	533
Kenton County.....	156
Larue County.....	143
Lawrence County.....	191
Lincoln County.....	112
Mason County.....	194
Meade County.....	199
Pendleton County.....	120
Woodford County.....	127
Scattering.....	2,537
Malaria.....	2
Measles:	
Barren County.....	14
Campbell County.....	44

Measles—Continued.	Cases.
Fleming County.....	15
Harrison County.....	25
Jackson County.....	14
Kenton County.....	40
McCracken County.....	15
Owsley County.....	76
Simpson County.....	19
Todd County.....	10
Scattering.....	92
Mumps.....	19
Ophthalmia neonatorum:	
Jefferson County.....	1
Pneumonia:	
Boyd County.....	12
Hardin County.....	10
Jefferson County.....	57
Scattering.....	173
Scarlet fever:	
Campbell County.....	4
Graves County.....	7
Scattering.....	25
Septic sore throat.....	7
Smallpox:	
Bell County.....	7
Hopkins County.....	8
Knox County.....	12
Lincoln County.....	4
McCracken County.....	29
McLean County.....	29
Pike County.....	5
Whitley County.....	10
Scattering.....	12
Syphilis.....	31
Tonsillitis.....	15
Trachoma.....	11
Tuberculosis.....	37
Typhoid fever.....	17
Whooping cough.....	42

## 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.
Arizona (January, 1920).....	2	8	160	.....	4	.....	.....	20	10	1
California (December, 1919).....	7	425	111	17	1,743	2	1	501	341	38
Colorado (December, 1919).....	1	55	.....	.....	44	.....	.....	82	343	7
Delaware (January, 1920).....	.....	41	28	.....	300	.....	.....	28	16	4
Florida (January, 1920).....	7	81	2,057	116	53	4	1	17	238	47
Illinois (December, 1919).....	9	1,207	668	68	1,827	.....	11	1,885	629	165
Louisiana (January, 1920).....	15	91	968	58	57	4	1	35	123	44
Maryland (January, 1920).....	2	339	4,057	1	992	.....	3	399	14	39
Michigan (January, 1920).....	.....	882	.....	.....	3,640	.....	3	977	478	48
Minnesota (December, 1919).....	5	363	36	.....	441	.....	2	208	397	45
Nebraska (January, 1920).....	3	61	2,988	.....	41	.....	.....	358	538	48
New Mexico (January, 1920).....	1	51	335	3	135	.....	1	60	102	15
Rhode Island (January, 1920).....	4	147	1,170	.....	72	.....	1	115	.....	1
Vermont (January, 1920).....	1	41	118	.....	487	.....	.....	72	.....	12
West Virginia (January, 1920).....	10	287	3,536	.....	184	.....	1	283	431	135

## RECIPROCAL NOTIFICATION.

## Minnesota—December, 1919.

Cases of communicable diseases referred during December, 1919, to other State health departments by department of health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Tuberculosis: Mayo Clinic, Rochester, Olmsted County.	Lemoore, Kings County, Calif.....	5 advanced.
	Decatur, Macon County, Ill.....	11 moderately advanced.
	Sheldon, Iroquois County, Ill.....	.....
	Wheaton, Dupage Co., Ill.....	1 apparently cured.
	Story City, Story County, Iowa.....	1 apparently arrested; left Mayo clinic for homes.
	Decorah, Winneshiek County, Iowa.....	.....
	Hanlontown, Worth County, Iowa.....	.....
	Brooks, Adams County, Iowa.....	.....
	Charles City, Floyd County, Iowa.....	.....
	Missoula, Missoula County, Mont.....	.....
	Billings, Yellowstone Co., Mont.....	.....
	Wayne, Wayne County, Nebr.....	.....
	Huff, Morton County, N. Dak.....	.....
	Arthur, Cass County, N. Dak.....	.....
Springfield, Clark County, Ohio.....	.....	
Hayti, Hamlin County, S. Dak.....	.....	
Platteville, Grant County, Wis.....	.....	
Lysite, Fremont County, Wyo.....	.....	
Sioux City, Woodbury County, Iowa.....	Left hospital for his home in Sioux City, Iowa.	
City and County Hospital, Ramsey County.	Jamestown, Stutsman County, N. Dak.....	Left hospital for his home in Jamestown, N. Dak.
Thomas Hospital, Minneapolis, Hennepin County.	Cogswell, Sargent County, N. Dak.....	Left hospital for his home at Cogswell, N. Dak.
.....	Philadelphia, Philadelphia County, Pa.....	Left hospital for her home in Philadelphia.
.....	Sandusky, Sauk County, Wis.....	Left hospital for his home at Sandusky, Wis.
Typhoid fever: Redwood Falls, Redwood County.	Chautauqua, Chautauqua County, N. Y.....	Was living at home in Chautauqua, N. Y., 3 weeks previous to first symptoms.
St. Paul Hospital, St. Paul, Ramsey County.	Buffalo, Cass County, N. Dak.....	Taught school at Buffalo, N. Dak., 3 weeks previous to first symptoms.
Diphtheria: Blooming Prairie, Steele County.	Chicago, Cook County, Ill.....	Came to Blooming Prairie from Chicago to spend Christmas vacation.
Smallpox: Redpath Township, Traverse County.	Estherville, Emmet County, Iowa.....	Came to Redpath Township, from Estherville, Iowa, Dec. 27, 1919.

**ACTINOMYCOSIS.**

**Illinois Report for December, 1919.**

During the month of December, 1919, one case of actinomycosis was reported in Illinois.

**ANTHRAX.**

**Philadelphia, Pa.—Week Ended February 7, 1920.**

During the week ended February 7, 1920, one case of anthrax was reported at Philadelphia, Pa.

**CEREBROSPINAL MENINGITIS.**

**State Reports for December, 1919, and January, 1920.**

Place.	New cases reported.	Place.	New cases reported.
Arizona (January, 1920):		Louisiana—Continued.	
Coconino County.....	1	Evangeline Parish.....	1
Gila County.....	1	Franklin Parish.....	1
Total.....	2	Lafayette Parish.....	1
California (December, 1919):		Natchitoches Parish.....	3
Fresno County—		Orleans Parish.....	3
Fresno.....	1	Rapides Parish.....	3
Glenn County.....	1	Total.....	15
Los Angeles County—		Maryland (January, 1920):	
Los Angeles.....	1	Baltimore.....	2
San Francisco.....	4	Minnesota (December, 1919):	
Total.....	7	Hennepin County—	
Colorado (December, 1919):		Minneapolis.....	2
Weld County.....	1	Robbinsdale.....	1
Florida (January, 1920):		Lake County—	
Dural County—		Two Harbors.....	1
Jacksonville.....	1	Murray County—	
Escambia County.....	1	Iona Lake.....	1
Hillsboro County.....	1	Total.....	5
Tampa.....	1	Nebraska (January, 1920):	
Lafayette County.....	1	Saline County.....	3
Pasco County.....	1	New Mexico (January, 1920):	
Pinellas County.....	1	Hidalgo County.....	1
Total.....	7	Rhode Island (January, 1920):	
Illinois (December, 1919):		Cumberland (town).....	1
Cook County—		West Warwick (town).....	3
Chicago.....	2	Total.....	4
Harvey.....	1	Vermont (January, 1920):	
Franklin County—		Washington County—	
West Frankfort.....	1	Northfield.....	1
Montgomery County—		West Virginia (January, 1920):	
Litchfield.....	1	Fayette County.....	1
Peoria County—		Greenbrier County.....	1
Hollis Township.....	1	Jackson County.....	2
Peoria.....	1	Kanawha County.....	1
St. Clair County—		Marion County.....	1
East St. Louis.....	1	Mercer County.....	1
Mascoutah.....	1	Pleasants County.....	1
Total.....	9	Ritchie County.....	1
Louisiana (January, 1920):		Wetzel County.....	1
Allen Parish.....	1	Total.....	10
Bossier Parish.....	1		
Calcasieu Parish.....	1		

## CEREBROSPINAL MENINGITIS—Continued.

## City Reports for Week Ended Feb. 7, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Appleton, Wis.....	1	.....	Minneapolis, Minn.....	.....	1
Attleboro, Mass.....	1	1	New York, N. Y.....	7	3
Baltimore, Md.....	1	.....	Passaic, N. J.....	.....	1
Buffalo, N. Y.....	.....	1	Peoria, Ill.....	1	.....
Chicago, Ill.....	2	1	Portland, Oreg.....	2	.....
Dallas, Tex.....	.....	1	Racine, Wis.....	1	.....
Detroit, Mich.....	2	1	Sacramento, Calif.....	1	.....
Flint, Mich.....	.....	1	Salt Lake City, Utah.....	1	.....
Galveston, Tex.....	1	.....	San Francisco, Calif.....	3	2
Gary, Ind.....	.....	1	Wausau, Wis.....	.....	1
Kansas City, Mo.....	1	.....	Worcester, Mass.....	1	.....
Los Angeles, Calif.....	1	.....	Wilkes-Barre, Pa.....	1	.....
Milwaukee, Wis.....	1	2			

## DIPHTHERIA.

See Telegraphic weekly reports from States, page 464; Monthly summaries by States, page 469; and Weekly reports from cities, page 494.

## INFLUENZA.

## State Reports for December, 1919, and January, 1920.

Place.	New cases reported.	Place.	New cases reported
California (December, 1919):		Illinois—Continued.	
Alameda County—	.....	Alexandria County—	.....
Oakland.....	2	Thebes.....	8
Butte County—	.....	Delta.....	2
Chico.....	1	Bond County—	.....
Fresno County—	.....	La Grange Township.....	2
Firebaugh.....	1	Boone County—	.....
Selma.....	1	Belvidere.....	1
Glenn County—	.....	Bureau County—	.....
Orland.....	1	Buda.....	3
Humboldt County—	.....	Carroll County—	.....
Eureka.....	11	Chadwick.....	6
Imperial County—	.....	Mount Carroll.....	2
El Centro.....	9	Champaign County—	.....
Kern County.....	2	Champaign.....	4
Taft.....	5	Homer.....	1
Kings County.....	9	Christian County—	.....
Los Angeles County	.....	Assumption.....	1
Long Beach.....	2	Clay County—	.....
Los Angeles.....	20	Louisville.....	10
San Fernando.....	1	Clinton County—	.....
Monterey County—	.....	Breese.....	1
King City.....	4	Germantown.....	7
Orange County.....	2	Cook County—	.....
San Bernardino County—	.....	Chicago.....	210
Ontario.....	1	Evanston.....	1
San Bernardino.....	1	LaGrange.....	5
San Diego County—	.....	Moss Point.....	5
San Diego.....	1	Lyons.....	3
Santa Barbara County—	.....	Oak Park.....	1
Santa Barbara.....	4	Dewitt County—	.....
Santa Clara County.....	1	Clinton.....	1
Siskiyou County—	.....	Dupage County—	.....
Fort Jones.....	1	Wheaton.....	45
Sonoma County.....	3	Effingham County—	.....
Tulare County—	.....	Effingham.....	2
Lindsay.....	1	Montrose.....	11
Yolo County.....	2	St. Francis Township.....	5
Davis.....	1	Fayette County—	.....
Winters.....	1	Brownstown.....	5
San Francisco.....	17	Ford County—	.....
Total.....	111	Rogers Township.....	2
		Franklin County—	.....
Illinois (December, 1919):		Cave Township.....	5
Adams County—	.....	Hancock County—	.....
Quincy.....	1	Augusta.....	6

INFLUENZA—Continued.

State Reports for December, 1919, and January, 1920—Continued.

Place.	New cases reported.	Place.	New cases reported.
<b>Illinois—Continued.</b>		<b>Illinois—Continued.</b>	
Henry County		Sangamon County—	
Cambridge.....	4	Springfield.....	4
Orion.....	2	Scott County—	
Iroquois County—		Bluffs.....	1
Milford.....	1	Naples.....	2
Jackson County—		Shelby County—	
Grand Tower.....	1	Cowden.....	1
Jasper County—		Shelbyville.....	10
Rose Hill.....	1	St. Clair County—	
Jefferson County—		Caseyville Township.....	1
McClellan Township.....	4	East St. Louis.....	26
Waltonville.....	3	Stites Township.....	6
Johnson County		Stark County—	
Cypress.....	1	La Fayette.....	15
Vienna.....	2	Wyoming.....	2
Jo Daviess County—		Stephenson County—	
Apple River.....	2	Freeport.....	2
Kane County—		Ridott Township.....	8
Batavia.....	6	Tazewell County—	
Maple Park.....	1	Pekin.....	4
Sugar Grove Township.....	1	South Pekin.....	2
Kankakee County—		Union County.....	28
Manteno.....	5	Reynolds Precinct.....	4
Saline Township.....	2	Vermilion County.....	1
St. Anne Precinct.....	7	Sidell.....	6
Kendall County—		Whiteside County—	
Fox Township.....	1	Sterling.....	2
Knox County—		Will County—	
Oneida.....	11	Peotone.....	5
Lake County—		Mokena.....	14
Zion City.....	4	Williamson County—	
Lawrence County—		Carterville.....	2
Russellville.....	6	Granville.....	3
Lee County—		Winnebago County—	
Ashton Township.....	2	Winnebago.....	2
Livingston County—		Woodford County—	
Chatsworth.....	8	Eureka.....	1
Chatsworth Township.....	5	Palestine Township.....	3
Forest Township.....	2	Secor.....	1
Logan County—		Total.....	668
Lincoln.....	1	<b>Maryland (January, 1920):</b>	
McLean County—		Baltimore.....	2,288
Belleflower Township.....	1	Allegany County—	
Empire Township.....	2	Cumberland.....	94
Macon County—		Rural districts.....	42
Argenta.....	2	Camp Meade.....	113
Decatur.....	6	Anne Arundel County—	
Macoupin County—		Annapolis.....	5
Palmyra.....	1	Rural districts.....	32
Virden.....	1	Baltimore County—	
Madison County—		Rural districts.....	269
Bethalto.....	4	Carroll County—	
New Douglas.....	1	Westminster.....	41
Mason County—		Rural districts.....	83
Friends Creek Township.....	2	Calvert County—	
Mason City.....	1	Rural districts.....	13
Marshall County—		Caroline County—	
Stauben Township.....	9	Rural districts.....	8
Sparkland.....	8	Cecil County—	
Menard County—		Rural districts.....	5
Tallula.....	2	Charles County—	
Mercer County—		Rural districts.....	119
Windsor.....	5	Indian Head Proving Ground.....	4
Ogle County—		Dorchester County—	
Mount Morris Township.....	1	Cambridge.....	1
Peoria County—		Rural districts.....	9
Brimfield.....	1	Frederick County—	
Peoria.....	11	Frederick.....	13
Pike County—		Rural districts.....	75
Alton Township.....	4	Garrett County—	
Hull.....	2	Rural districts.....	25
Pleasant Vale Township.....	1	Harford County—	
Putnam County—		Bel Air.....	2
Greenville Township.....	1	Rural districts.....	36
Rock Island County—		Howard County—	
Rock Island.....	1	Rural districts.....	67
Saline County—			
Carriers Mills.....	10		

## INFLUENZA—Continued.

## State Reports for December, 1919, and January, 1920—Continued.

Place.	New cases reported.	Place.	New cases reported.
<b>Maryland—Continued.</b>		<b>Minnesota—Continued.</b>	
Kent County—		Crow Wing County—	
Rural districts.....	8	Crosby.....	1
Montgomery County—		Goodhue County—	
Rural districts.....	380	Cannon Falls.....	1
Prince George County—		Hennepin County—	
Rural districts.....	198	Minneapolis.....	7
Queen Annes County—		Isanti County—	
Rural districts.....	5	Isanti Township.....	1
Somerset County—		Kittson County—	
Crisfield.....	1	Kennedy.....	3
Rural districts.....	6	Lyon County—	
St. Marys County—		Cottonwood.....	1
Rural districts.....	8	Morrison County—	
Washington County—		Little Falls.....	1
Hagerstown.....	93	Swanville.....	5
Rural districts.....	8	Platte Township.....	5
Wisconsin County—		Ramsey County—	
Salisbury.....	2	St. Paul.....	1
Rural districts.....	5	Stearns County—	
Total.....	4,057	St. Cloud.....	1
		Holding Township.....	2
<b>Minnesota (December, 1919):</b>		Stevens County—	
Aitkin County—		Chokio.....	1
Clark Township.....	1	Todd County—	
Cass County—		Ward Township.....	4
Remer.....	1	Total.....	36

## City Reports for Weeks Ended Jan. 31, and Feb. 7, 14, and 21, 1920.

Place.	Cases week ended—				Deaths week ended—			
	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Adams, Mass.....		72	50				1	
Akron, Ohio.....	120	134	251					
Alameda, Calif.....	170	260	201	160	7	5	9	2
Alexandria, Va.....	65	26						
Alliance, Ohio.....	16	54	93					
Alpena, Mich.....	4	10	9					
Akron, Ill.....	272	423	116	39		11	14	3
Amesbury, Mass.....		65	97	39				
Anaconda, Mont.....	45	2	5			1		
Anderson, Ind.....	25				1			
Ann Arbor, Mich.....	267	152	82	78	3	1		
Anniston, Ala.....	30	69	67	65				
Ansonia, Conn.....	97	363	215	110		1		
Appleton, Wis.....	90	81						
Arlington, Mass.....	52	68		30	1	1		11
Asbury Park, N. J.....	20	23	28	6				
Ashland, Ky.....	23	131	253	238				
Ashtabula, Ohio.....	117	121	33	25	1	2	4	6
Atlanta, Ga.....	242	1,863	2,258	1,427	1	10	50	74
Atlantic City, N. J.....	50	50	39	22	1			1
Attleboro, Mass.....	46	117	29	15			1	
Auburn, Me.....	6	24	33	47				3
Auburn, N. Y.....	5	90		18				
Austin, Tex.....					1	2	2	1
Baltimore, Md.....	1,651	3,412	4,530	1,614	14	44	73	75
Bangor, Me.....		49	193	85				
Barberton, Ohio.....	7	2				1	2	1
Barre, Vt.....			1					
Baton Rouge, La.....	1	1			1	1		
Battle Creek Mich.....		111		4				
Bayonne, N. J.....	168	108	77	31				
Beatrice, Nebr.....	15	17	16					
Beaumont, Tex.....			74			1	1	
Bedford, Ind.....	4	4	6	2				
Belleville, N. J.....		42	29	1				
Beloit, Wis.....	226	39						

## INFLUENZA—Continued.

City Reports for Weeks Ended Jan. 31, and Feb. 7, 14, and 21, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Benton Harbor, Mich.	200	150		2				
Berkeley, Calif.	326	385	347		7	6	9	
Beverly, Mass.	14	55	66	15		1	1	2
Biddeford, Me.			76				3	
Billings, Mont.	101	53	8				1	
Birmingham, Ala.	47			444	4	11	6	27
Bloomfield, N. J.	21	11	12	3	1		1	1
Bloomington, Ill.	33	201	80		2		1	2
Bloomington, Ind.		38	52	21				
Bluefield, W. Va.	25	100	137	81				1
Boise, Idaho.	153	45	53					
Boston, Mass.	1,603	2,850	2,113	760	25	66	139	106
Brazil, Ind.	1	2	157	116				
Bridgeport, Conn.	406	649	437	287	7	24	24	19
Bristol, Conn.	45	95	158	46	1	1	1	1
Brookton, Mass.		60	45	8			4	1
Brookline, Mass.	54	46	72	33		3	4	1
Brunswick, Ga.	8	18	44	92				
Buffalo, N. Y.	470	1,260	1,333		8	34	81	
Burlington, Iowa	95	83	28	5		1	2	1
Burlington, Vt.	2	1	12	24		1	3	
Butler, Pa.	28	7	58	52				
Butte, Mont.	68	112	66	10		2	2	
Cadillac, Mich.		12	75	200				3
Cairo, Ill.	14	125	105	112				2
Cambridge, Mass.	256	501	600	183		4	12	9
Canton, Ill.					2	12	9	6
Canton, Ohio	859	398	53	25	20	19	19	3
Cape Girardeau, Mo.	151							
Cedar Rapids, Iowa	142	97	14		1			
Centralia, Ill.	92	107	19	11				
Chanute, Kans.	16	150	421			2		
Charleston, S. C.	219	826	1,208	750	1	2	16	33
Charleston, W. Va.	340	921	210	35				
Charlotte, N. C.	102	237	393	123		4	4	7
Chatanooga, Tenn.	57	170	181	106	1	1	3	14
Chelsea, Mass.	107	148	116	31	1	5		2
Cheyenne, Wyo.	4	1	1	1	2		1	1
Chicago, Ill.	9,955	4,641	1,741	597	586	560	240	127
Chicope, Mass.	3	4	5	17			1	
Chillicothe, Ohio	8			57				
Cincinnati, Ohio	105	388	456	334	1	19	33	41
Cleveland, Ohio	1,084	2,243	1,064	483	16	79	151	102
Clinton, Mass.		7	25	29				
Coffeyville, Kans.	8	33	118	103			1	
Cohoes, N. Y.	73	245	107	60				
Colorado Springs, Colo.	378				1			
Columbia, S. C.	101	313	387	168				
Columbus, Ga.	10	152	351	192			3	7
Columbus, Ohio	512	2,013	702	160	5	34	68	49
Concord, N. H.		1						
Corpus Christi, Tex.		41	114	28				
Cortland, N. Y.	29		32	27				
Coshocton, Ohio			132					
Council Bluffs, Iowa	1	47	2		1	8	5	7
Covington, Ky.	15	101	93	103	2		1	
Cranston, R. I.	15	22	16	8				3
Cumberland, Md.	112	423	403	252		2	6	4
Dallas, Tex.	1,569	1,114	818	207	14	26	22	17
Danbury, Conn.	152	254		17				
Danvers, Mass.		24	35	17				
Danville, Ill.	1,000		800	286			5	
Danville, Va.	61	298			1			
Davenport, Iowa	310	132	18	4	1			
Dayton, Ohio	25	19	5	3	10	13	5	16
Decatur, Ill.	460	210	82	15	5	5	5	2
Dedham, Mass.	1							
Denver, Colo.			62	141	19	74	81	32
Des Moines, Iowa	18							
Detroit, Mich.	6,922	1,529	282	36	134	254	185	55
Dover, N. H.	5	13	59	31				
Du Bois, Pa.			150	140				1
Dubuque, Iowa		317	51	2		16		2
Duluth, Minn.	324	425	223	35	2	18	24	9
East Chicago, Ind.					4	5	3	1

¹ Including pneumonia.



## INFLUENZA—Continued.

City Reports for Weeks Ended Jan. 31, and Feb. 7, 14, and 21, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
East Cleveland, Ohio.....		38						
Easthampton, Mass.....	1	14	22					
East Orange, N. J.....	293	169	117	23	2	3	2	1
East Providence, R. I.....		11	2					
East St. Louis, Ill.....	476	338	111	29	6	6	6	7
Elgin, Ill.....	101	6	3			1	1	2
Elkhart, Ind.....	82	32	6		2			
Elmira, N. Y.....	9	12				1		
El Paso, Tex.....	1				1	3	8	14
Englewood, N. J.....	34	14		1	1			1
Erie, Pa.....	401	2,587	985	236	1	29	29	25
Eureka, Calif.....		10	8			1		
Evanston, Ill.....	187	67	10	7				
Evansville, Ind.....		26				1		
Everett, Mass.....	119	117	89	38			5	1
Fairmont, W. Va.....	39	178	594	435			1	8
Fall River, Mass.....	34	185	197	81		2	6	11
Findlay, Ohio.....	24							
Flint, Mich.....	569	361	26			6	5	
Fond du Lac, Wis.....	89	183				3		
Fort Dodge, Iowa.....	12		14	2				
Fort Scott, Kans.....	2							
Fort Smith, Ark.....	521			138				
Fort Worth, Tex.....				3	3	7	5	3
Fostoria, Ohio.....	12	40	13					
Framingham, Mass.....	15	51	47	48			2	2
Freeport, Ill.....		19	5	12	18	13	18	12
Fremont, Ohio.....	12	4	2					
Galesburg, Ill.....		101	61	15	1		2	1
Galveston, Tex.....	71	274	342	72		1	2	
Gardener, Mass.....	2	15		12				3
Gary, Ind.....					12	7	8	2
Grand Rapids, Mich.....	301	414	432	152		4	5	4
Granite City, Ill.....		116	35	14		1	1	
Great Falls, Mont.....	10	48	113	193	1			12
Green Bay, Wis.....	36	79						
Greenfield, Mass.....	30	108	36	23			1	
Greenwich, Conn.....	131	127	44	47	2	1	4	3
Hackensack, N. J.....	175	118	25	29				
Hammond, Ind.....					2		2	2
Harrison, N. J.....		7	2	1				
Hartford, Conn.....	550	602	116	27	4	22	32	19
Haverhill, Mass.....	129	380	543	208	1	8	10	2
Hibbing, Minn.....	70	316	245	35				1
Highland Park, Mich.....	316	147	58					
Hoboken, N. J.....	49	34	4	3	2	3	3	
Holland, Mich.....	24	16	10				1	
Holyoke, Mass.....	29	37	31	24	1		1	1
Hot Springs, Ark.....	30	135	211					
Huntington, Ind.....	30		1			1		
Huntington, W. Va.....	10	626	584	91			1	
Hutchinson, Kans.....	50	40	39					
Independence, Mo.....	100	200	6	11	6	20	16	11
Indianapolis, Ind.....	481		211	76	6		124	38
Ironton, Ohio.....		21						
Ironwood, Mich.....	5	58	199				4	
Ishpeming, Mich.....	1	5	34	47				2
Ithaca, N. Y.....	51	248	291	68	2		1	
Jacksonville, Ill.....	130	251	11			1		
Jamestown, N. Y.....	573	962	274	104		1		
Jamesville, Wis.....	136	12			3	3		
Jefferson City, Mo.....							1	
Jersey City, N. J.....	766	244	69	20				
Joplin, Mo.....	20	185	40	14				
Kalamazoo, Mich.....		283	298	87		4	4	3
Kankakee, Ill.....	34	56	22				3	1
Kansas City, Kans.....	745	722	290	41	3			
Kansas City, Mo.....	1,354	720	191	55	72	32	90	40
Kearny, N. J.....	175	147	69	39	1			
Keene, N. H.....	10	45					2	
Kenosha, Wis.....	308	241						
Knoxville, Tenn.....	431	608	622			15	29	
Lackawanna, N. Y.....	29	103	194	76		1	2	
La Crosse, Wis.....	230	309	80					
La Fayette, Ind.....	13	56	55	4	1	1		4

¹Including pneumonia.

INFLUENZA—Continued.

City Reports for Weeks Ended Jan. 31, and Feb. 7, 14, and 21, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Lancaster, Ohio.....		9	60	8				
Lancaster, Pa.....	20	123	45	9				
La Salle, Ill.....	141	87	39		1	1	7	
Lawrence, Kans.....	39	205	143	85				
Lawrence, Mass.....	47	109	108	64		1	3	5
Leavenworth, Kans.....	17	164	109	14				
Leominster, Mass.....	15	32	106				1	
Lexington, Ky.....	3	44	97	80			1	2
Lima, Ohio.....		127	197	14		1	4	6
Lincoln, Nebr.....	76	40	4			9	8	3
Lincoln, R. I.....	8	16	17	11		1		
Little Rock, Ark.....	150	744	610				4	1
Lockport, N. Y.....	22	136	175	71				2
Logansport, Ind.....						2		1
Long Beach, Calif.....	53	128		95				2
Lorain, Ohio.....	103	200	80	39	2	2		1
Los Angeles, Calif.....	675	2,215	2,563		8	4	12	
Louisville, Ky.....	220	492	432	172	2	7	5	3
Lowell, Mass.....	70	214	407	340	1			6
Ludington, Mich.....		100	74					
Lynchburg, Va.....	33	207	306	127	1	1	8	5
Lynn, Mass.....	133	333	280	137	1	8	26	10
Macon, Ga.....		24				1		
Madison, Wis.....	336	221			14			
Malden, Mass.....	154	439	315			5	10	
Manchester, Conn.....	148	194	59	6	2	2		
Manchester, N. H.....	64	87	104	61	1	1	12	5
Manitowoc, Wis.....	170	235						
Mankato, Minn.....		6	16	2	2	14	2	
Marinette, Wis.....	113	192						
Marion, Ind.....	19	60	56	44			2	3
Marion, Ohio.....	61	14		4				
Marlboro, Mass.....	7							
Marquette, Mich.....	67							
Martins Ferry, Ohio.....	1	12	40				2	
Mason City, Iowa.....	8	24	5		1			
Mattoon, Ill.....	45	82	36					
Medford, Mass.....		65	82	39			2	2
Melrose, Mass.....	31	22	40		1		4	
Memphis, Tenn.....	753	1,333	1,085	327	1	7	22	13
Meriden, Conn.....	158	150	270	163		2		
Methuen, Mass.....	22	46	32	27				
Middletown, N. Y.....		89						
Milwaukee, Wis.....	796	27				10		
Minneapolis, Minn.....	2,074	1,225	149		46	131		
Mishawaka, Ind.....	1			32	5	2	1	
Missoula, Mont.....	70	125	141	32		1	2	
Mobile, Ala.....	8	302	675	482	1	4	10	9
Monmouth, Ill.....			20	36		1		1
Monroe, La.....	6							
Montgomery, Ala.....	49		99	126	1		1	3
Morgantown, W. Va.....	50	347	281	123				
Morristown, N. J.....	50	66	31	7		1		
Moundsville, W. Va.....	284	102	62	19	5			
Mount Vernon, N. Y.....		282	183	51		2		1
Muncie, Ind.....	20	43	9		1		3	
Muscatine, Iowa.....	14						2	
Nashua, N. H.....	75	130	124				1	
Nashville, Tenn.....	15	29	182	134	2	2	10	34
Newark, N. J.....	2,932		1,498		31	62	52	
New Bedford, Mass.....	8	170	289	201				1
New Britain, Conn.....	357	669	462	178	1	3	13	14
New Brunswick, N. J.....	160	165	85	10				
Newburgh, N. Y.....	9							
Newburyport, Mass.....	12	43	48	12				
New Haven, Conn.....	242	278	190	183	8	11	37	34
New London, Conn.....	118	98	119	47				
New Orleans, La.....	246	502	782	478	9	4	17	31
Newport, R. I.....	64	585	905	313			9	5
Newton, Mass.....	83	152	58			1	7	
New York, N. Y.....	30,456	21,968	8,091	3,030	557	965	731	300
Niagara Falls, N. Y.....		173	363			1	6	
Norfolk, Va.....	280	602	241		2	1	2	
North Adams, Mass.....			76	62			1	2
Northampton, Mass.....	15	53	34	19		1	1	1
North Attleboro, Mass.....		2						
North Little Rock, Ark.....	36	98		46		2		
North Tonawanda, N. Y.....	30	127	107	160			2	

## INFLUENZA—Continued.

. City Reports for Weeks Ended Jan. 31, and Feb. 7, 14, and 21, 1920—Contd.

Place.	Cases week ended—				Deaths week ended—			
	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Norwalk, Conn.	22	20	9		2		3	1
Norwich, Conn.	176	59	50	30	3		10	1
Norwood, Ohio	1	16	3					
Oakland, Calif.	438			378	12	38		
Oak Park, Ill.	129	41	11	2			3	
Ogden, Utah.	312				3			
Oklahoma City, Okla.	724	264	44	38	4	8	12	5
Olean, N. Y.		2	43					
Omaha, Nebr.	400	144	30	6	12	30	29	13
Orange, N. J.	120	131	58	25		4	1	2
Oshkosh, Wis.	265	142	24					
Paducah, Ky.	24	45	123	54				
Parkersburg, W. Va.	40	146	39	19		2	6	
Parsons, Kans.	32	113	114					
Pasadena, Calif.	107	223	165	81				
Passaic, N. J.	216	267	139	76	1	2	2	2
Paterson, N. J.	270	296	173	92				
Pawtucket, R. I.	26		145	26	1	1	7	5
Peoria, Ill.	320	333	45	10			3	1
Perth Amboy, N. J.	90	67	16		1			
Petersburg, Va.	80	182	210	160				1
Philadelphia, Pa.	1,321	2,627	2,212	1,069	16	107	200	218
Pine Bluff, Ark.	35	127	25					
Pittsfield, Mass.	120	181	145	26		8	5	6
Plainfield, N. J.		141	103	22		7	4	
Pontiac, Mich.	309	308	56	16			1	1
Port Chester, N. Y.	51	35	43	4			1	
Port Huron, Mich.	206		102	10	1		7	3
Portland, Me.	294	545		380	1	7	12	11
Portland, Ore.	215	553	742	133	2	4	29	
Portsmouth, N. H.	17	49	15	9				
Portsmouth, Ohio.	197	645			1	8		
Portsmouth, Va.		699				2		
Poughkeepsie, N. Y.	200	52	43	1	2	3		1
Providence, R. I.	574	1,488	1,201	724	2	13	30	28
Provo, Utah		1,700		560				
Pueblo, Colo.			33	1	1	1	2	2
Quincy, Ill.	33	230	69	12		1	2	2
Quincy, Mass.	86	84	36		1		3	
Racine, Wis.	202	135						
Rahway, N. J.	18	1						
Raleigh, N. C.	526	689	758	1,252			2	8
Reading, Pa.	375	260		48	2	18		9
Redlands, Calif.		5	8					
Red Wing, Minn.	28	43				3		
Reno, Nev.	6	59		62				
Richmond, Ind.	24	49	1	1		1		
Richmond, Va.	1,866	2,516	842	359	10	23	20	10
Riverside, Calif.	3	65	97	106				
Rochester, N. Y.	1,217	1,357	601	175	9	25	21	12
Rockford, Ill.		68						2
Rock Island, Ill.	165	172		15		1		
Rocky Mount, N. C.	100	250	250	250				2
Rome, Ga.	17	148	546	646			5	
Rome, N. Y.	58							
Rutland, Vt.			124				1	
Sacramento, Calif.	222	271	173	153	8	5	10	2
St. Cloud, Minn.	57	152	78	25				1
St. Joseph, Mo.	219	884	674	164	2	4	6	11
St. Paul, Minn.	1,071	413	44		55	61	48	
Salem, Mass.	13	13		7		1		
Salem, Ore.	11	39	67			1	2	
Salt Lake City, Utah.	1,233	1,288	476	74	6	48	52	21
San Bernardino, Calif.		45	70					
San Diego, Calif.	118	392	259				7	
Sandusky, Ohio.	62	101	84	31				2
Sanford, Me.	52	141	203	148				
San Francisco, Calif.	789	1,474			27	71		
Santa Ana, Calif.	8							
Santa Barbara, Calif.	110	108			1			
Santa Cruz, Calif.		10	5					
Saratoga Springs, N. Y.	49	154	267	164	1			
Saugus, Mass.	24				1			
Sault Ste. Marie, Mich.	19	55	39	7				
Savannah, Ga.	24	586	1,588	972	1	6	16	44
Schenectady, N. Y.	38	91	53		3	5	10	
Seattle, Wash.	278	1,253	909			22	80	

## INFLUENZA—Continued.

City Reports for Weeks Ended Jan. 31, and Feb. 7, 14, and 21, 1920—Continued.

Place.	Cases week ended—				Deaths week ended—			
	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.	Jan. 31.	Feb. 7.	Feb. 14.	Feb. 21.
Sioux Falls, S. Dak.	253	286	60	128	1	5	4	9
Somerville, Mass.	161	396	319	72		1	12	3
South Bend, Ind.		25	5	1	5			
Southbridge, Mass.	6							
Spartanburg, S. C.	153	480	305		4	5	3	
Spokane, Wash.	4							
Springfield, Ill.	56		76	4			2	
Springfield, Mass.	36	188	201	78	1	4	12	17
Springfield, Mo.					1	5	5	
Springfield, Ohio.	139	252	122	10		3	4	1
Stamford, Conn.		76	16					
Staunton, Va.	67	122	99	32			1	1
Stcelton, Pa.	4	45	4	3		1		1
Steubenville, Ohio.	5	4	2	1				
Stillwater, Minn.			6					
Stockton, Calif.	115	212	142		3		1	
Syracuse, N. Y.	474	62	15	10	8	32	25	5
Taunton, Mass.	11	34		44		4	1	2
Terre Haute, Ind.	4	34	10	15				2
Tiffin, Ohio.	33	56	71				1	
Toledo, Ohio.	235	299	274	62	7	19	19	20
Topeka, Kans.	194	418	591	229	1	5	5	12
Traverse City, Mich.	17	72	73	39				
Trenton, N. J.	286	380	223	160	2	5	14	5
Trinidad, Colo.	16	95						
Troy, N. Y.	60							
Tucson, Ariz.		10	2					
Tuscaloosa, Ala.	60							
Tyler, Tex.	71							
Union, N. J.	3	3						
Vallejo, Calif.		100	50					
Virginia, Minn.	26	95	196					
Waco, Tex.	63	45	13	1			3	2
Walla Walla, Wash.	6							
Waltham, Mass.		290	212	92		2	1	1
Washington, D. C.	1,616	557	298	104	77	62	34	17
Waterbury, Conn.	1,157	448	146				1	
Watertown, Mass.	32	35	34	8				
Watertown, N. Y.	9	154	211	125			3	1
Wausau, Wis.	115	346	115				1	1
Webster, Mass.	7							
Westfield, Mass.		6	57	44				1
West Hoboken, N. J.		91	19	4		2		1
West New York, N. J.	19	5			15	1		
West Orange, N. J.	114	93		11	2	2		1
Wheeling, W. Va.	27	82	134	63		1	9	14
White Plains, N. Y.	231				1			
Wichita, Kans.	214	230	165	142	2	1	3	9
Wilkes-Barre, Pa.					2	10	11	21
Wilkinsburg, Pa.	9	90	42	18				6
Wilmington, N. C.	54	41		581				2
Winchester, Mass.		26	26					
Windham, Conn.			8					
Winona, Minn.	15	56	55	12	1			
Winston-Salem, N. C.		1,810	1,810	532	2	7	19	14
Winthrop, Mass.	55	73	51	24		2		
Woburn, Mass.						1	2	
Worcester, Mass.	206	463	418	269	4	7	18	13
Yonkers, N. Y.	148	55	53	14	1	6	5	2
Zanesville, Ohio.			308					

¹ Including pneumonia.

## LEPROSY.

La Junta, Colo., and Omaha, Nebr.

During December, 1919, a case of leprosy was reported at La Junta, Colo., in the person of Mrs. T., a Mexican.

During January, 1920, a case of leprosy was reported at Omaha, Nebr., in the person of C. Y., a veteran of the Spanish-American War.

## LETHARGIC ENCEPHALITIS.

## California and Illinois.

During the week ended February 7, 1920, one case and one death from lethargic encephalitis were reported at Oakland, Calif. During the month of December, 1919, 18 cases were reported in Illinois, 16 of which occurred in Chicago and two in Aurora, Kane County.

## MALARIA.

## State Reports for December, 1919, and January, 1920.

Place.	New cases reported.	Place.	New cases reported.
California (December, 1919):		Illinois—Continued.	
Los Angeles County—		Clinton County—	
Los Angeles.....	1	Germantown.....	14
San Francisco.....	3	Cook County—	
Presidio.....	3	River Forest.....	2
Santa Cruz County—		Franklin County—	
Santa Cruz.....	1	Browning Township.....	7
Shasta County.....	9	Zeigler.....	2
Total.....	17	Jasper County—	
Florida (January, 1920):		Rose Hill.....	2
Alachua County.....	4	Johnson County—	
Bay County.....	5	Cypress.....	4
Bradford County.....	2	Montgomery County—	
Broward County.....	2	Witt.....	2
Citrus County.....	1	McLean County—	
Columbia County.....	1	Colfax.....	2
Dade County.....	1	Perry County—	
De Soto County.....	2	South West Precinct.....	1
Duval County.....	4	Randolph County—	
Jacksonville.....	9	Red Bnd.....	1
Escambia County.....	1	Saline County—	
Pensacola.....	7	Carrier Mills.....	11
Gadsden County.....	2	St. Clair County—	
Hamilton County.....	1	Stite Township.....	2
Hillsboro County.....	2	Union County—	
Tampa.....	10	Alto Pass.....	1
Holmes County.....	2	Reynolds Precinct.....	10
Jackson County.....	5	Wabash County—	
Jefferson County.....	5	Keensburg.....	3
Lafayette County.....	2	White County—	
Lake County.....	4	Morris City.....	1
Leon County.....	7	Total.....	68
Levy County.....	3	Louisiana (January, 1920):	
Madison County.....	2	Acadia Parish.....	11
Marion County.....	3	Calcasieu Parish.....	2
Monroe County—		Caldwell Parish.....	4
Key West.....	1	De Soto Parish.....	1
Okaloosa County.....	1	Grant Parish.....	9
Okeechobee County.....	8	Iberia Parish.....	3
Orange County.....	2	Iberville Parish.....	1
Osceola County.....	1	La Salle Parish.....	2
Pasco County.....	2	Orleans Parish.....	2
Pinellas County.....	1	Ouachita Parish.....	3
Polk County.....	1	Rapides Parish.....	2
Putnam County.....	1	St. Martin Parish.....	2
St. Johns County.....	1	St. Tammany Parish.....	13
St. Lucie County.....	1	Tangipahoa Parish.....	3
Seminole County.....	1	Total.....	58
Sumter County.....	2	Maryland (January, 1920):	
Taylor County.....	4	Charles County—	
Volusia County.....	1	White Plains.....	1
Wakulla County.....	1	New Mexico (January, 1920):	
Total.....	116	Santa Fe County.....	1
Illinois (December, 1919):		Valencia County.....	2
Bond County—		Total.....	3
Panama.....	2		

**MALARIA—Continued.**

**City Reports for Week Ended Feb. 7, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alexandria, La.....	17	.....	Dallas, Tex.....	4	.....
Anniston, Ala.....	1	.....	Memphis, Tenn.....	2	.....
Birmingham, Ala.....	4	.....	San Francisco, Calif.....	.....	1
Charleston, S. C.....	.....	1	Stockton, Calif.....	1	.....

**MEASLES.**

See Telegraphic weekly reports from States, page 464; Monthly summaries by States, page 469; and Weekly reports from cities, page 494.

**PELLAGRA.**

**State Reports for December, 1919, and January, 1920.**

Place.	New cases reported.	Place.	New cases reported.
California (December, 1919):		Louisiana (January, 1920):	
Los Angeles County—		Caddo Parish.....	1
Los Angeles.....	2	East Feliciana Parish.....	1
Florida (January, 1920):		Jackson Parish.....	1
Dade County—		Vernon Parish.....	1
Miami.....	1	Total.....	4
Gadsden County.....	2		
Osceola County.....	1		
Total.....	4		

**City Reports for Week Ended Feb. 7, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....	.....	2	Fort Worth, Tex.....	.....	1
Birmingham, Ala.....	1	.....	Mobile, Ala.....	.....	1
Chattanooga, Tenn.....	.....	1	Montgomery, Ala.....	.....	1
Columbus, Ga.....	2	.....	Raleigh, N. C.....	.....	1
Corpus Christi, Tex.....	1	.....			

**PLAGUE (RODENT).**

**New Orleans, La.**

The table below gives a record of rodent cases of plague at New Orleans, La., from February 14 to 19, and is a continuation of the table printed on page 414 of the Public Health Reports dated February 20, 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. 14.....	1	.....	1	2
Feb. 15.....	.....	.....	2	2
Feb. 16.....	.....	.....	2	2
Feb. 17.....	.....	.....	.....	0
Feb. 18.....	2	.....	4	6
Feb. 19.....	1	.....	.....	1

## PNEUMONIA (ALL FORMS).

City Reports for Week Ended Feb. 7, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.	82	1	East St. Louis, Ill.	10	7
Alameda, Calif.	8	1	Elgin, Ill.	4	4
Alexandria, Va.	8	6	Elizabeth, N. J.	19	14
Alliance, Ohio.	1	1	Elkhart, Ind.	8	7
Alpena, Mich.	1	1	Ehmira, N. Y.	22	4
Alton, Ill.	8	5	El Paso, Tex.	4	7
Amesbury, Mass.	2	1	Englewood, N. J.	4	1
Anaconda, Mont.	3	3	Evanston, Ill.	4	1
Ann Arbor, Mich.	17	15	Everett, Mass.	2	4
Anniston, Ala.	3	1	Fall River, Mass.	9	3
Ansonia, Conn.	2	4	Findlay, Ohio.	11	1
Arlington, Mass.	2	2	Flint, Mich.	84	81
Asbury Park, N. J.	3	1	Fort Worth, Tex.	28	28
Ashland, Ky.	18	1	Framingham, Mass.	3	1
Ashtabula, Ohio.	1	1	Fremont, Nebr.	2	1
Atlanta, Ga.	7	16	Fremont, Ohio.	2	1
Atlantic City, N. J.	12	6	Galesburg, Ill.	7	8
Attleboro, Mass.	2	1	Galveston, Tex.	1	6
Auburn, Me.	1	1	Gardner, Mass.	3	3
Auburn, N. Y.	4	8	Gary, Ind.	13	6
Baltimore, Md.	304	78	Geneva, N. Y.	10	5
Bangor, Me.	2	3	Glens Falls, N. Y.	1	1
Barberton, Ohio.	6	3	Gloucester, N. J.	6	1
Battle Creek, Mich.	14	3	Grand Rapids, Mich.	63	13
Bayonne, N. J.	16	2	Granite City, Ill.	2	3
Beatrice, Nebr.	2	2	Great Falls, Mont.	2	1
Beaumont, Tex.	3	3	Greeley, Colo.	2	3
Bedford, Ind.	1	1	Greenfield, Mass.	2	3
Belleville, N. J.	5	1	Greensboro, N. C.	10	6
Benton Harbor, Mich.	8	3	Greenwich, Conn.	15	2
Berkeley, Calif.	6	1	Hackensack, N. J.	2	6
Beverly, Mass.	1	6	Hammond, Ind.	7	8
Biddeford, Me.	35	1	Harrison, N. J.	8	23
Billings, Mont.	1	11	Hartford, Conn.	7	3
Birmingham, Ala.	16	7	Haverhill, Mass.	10	4
Bloomfield, N. J.	7	7	Hibbing, Minn.	18	4
Bloomington, Ill.	136	92	Highland Park, Mich.	38	16
Boston, Mass.	14	4	Hoboken, N. J.	42	28
Bridgeport, Conn.	2	1	Holland, Mich.	9	1
Bristol, Conn.	7	1	Holyoke, Mass.	1	5
Brockton, Mass.	2	1	Hot Springs, Ark.	4	1
Brookline, Mass.	2	33	Huntington, Ind.	1	1
Buffalo, N. Y.	113	8	Independence, Mo.	30	20
Burlington, Iowa.	8	2	Ironton, Ohio.	1	1
Burlington, Vt.	2	5	Ironwood, Mich.	3	1
Butte, Mont.	11	3	Irvington, N. J.	7	1
Cadillac, Mich.	4	17	Ishpeming, Mich.	1	5
Cairo, Ill.	15	2	Ithaca, N. Y.	17	9
Cambridge, Mass.	5	9	Jacksonville, Ill.	2	9
Canton, Ill.	2	9	Jamestown, N. Y.	71	9
Canton, Ohio.	1	1	Jefferson City, Mo.	72	8
Centralia, Ill.	1	1	Jersey City, N. J.	5	1
Chanute, Kans.	22	8	Joplin, Mo.	37	6
Charleston, S. C.	10	6	Kalamazoo, Mich.	3	1
Charleston, W. Va.	4	4	Kankakee, Ill.	45	1
Chattanooga, Tenn.	2,043	445	Kansas City, Kans.	196	88
Chelsea, Mass.	4	19	Kansas City, Mo.	13	5
Chicago, Ill.	79	79	Kearny, N. J.	3	1
Cincinnati, Ohio.	7	3	Kenne, N. H.	150	6
Cleveland, Ohio.	155	8	Kewaco, Ill.	10	4
Cohoes, N. Y.	8	3	Kokomo, Ind.	1	3
Columbia, S. C.	6	25	Lackawanna, N. Y.	1	2
Columbus, Ga.	6	1	La Fayette, Ind.	2	1
Columbus, Ohio.	25	1	Lancaster, Ohio.	2	1
Concord, N. H.	1	2	Lawrence, Kans.	3	1
Corpus Christi, Tex.	2	3	Leavenworth, Kans.	1	1
Council Bluffs, Iowa.	6	3	Leominster, Mass.	2	4
Covington, Ky.	3	2	Lexington, Ky.	7	22
Cranston, R. I.	32	35	Lima, Ohio.	7	12
Cumberland, Md.	56	3	Lincoln, Nebr.	8	2
Dallas, Tex.	3	5	Lockport, N. Y.	6	1
Danvers, Mass.	7	18	Logansport, Ind.	3	1
Danville, Va.	20	85	Long Beach, Calif.	134	28
Dayton, Ohio.	7	20	Lorain, Ohio.	34	33
Decatur, Ill.	20	85	Los Angeles, Calif.	11	12
Denver, Colo.	550	400	Louisville, Ky.	5	1
Detroit, Mich.	2	3	Lowell, Mass.	11	1
Duluth, Minn.	1	2	Ludington, Mich.	4	1
Durham, N. C.	1	8	Lynchburg, Va.	4	1
East Chicago, Ind.	24	2	Lynn, Mass.	9	4
East Orange, N. J.	2	2			

PNEUMONIA (ALL FORMS)—Continued.

City Reports for Week Ended Feb. 7, 1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Macon, Ga.	1	1	Pueblo, Colo.		12
Malden, Mass.	7	9	Quincy, Ill.	10	5
Manchester, Conn.	8	2	Quincy, Mass.	2	2
Manchester, N. H.	4	4	Rahway, N. J.		8
Marion, Ind.		1	Redlands, Calif.	1	
Marion, Ohio	1		Reno, Nev.	8	2
Martinsburg, W. Va.	3		Richmond, Ind.	22	8
Mason City, Iowa		5	Richmond, Va.	4	25
Mattoon, Ill.	2		Riverside, Calif.	6	2
Medford, Mass.	1	5	Rochester, N. Y.	80	25
Melrose, Mass.	2	1	Rockford, Ill.		37
Memphis, Tenn.		14	Rock Island, Ill.	26	6
Meriden, Conn.	2	3	Rocky Mount, N. C.		2
Methuen, Mass.	3	3	Rome, Ga.	3	
Middletown, N. Y.	4	5	Rutland, Vt.	2	3
Middletown, Ohio		5	Sacramento, Calif.	14	6
Milwaukee, Wis.		154	St. Cloud, Minn.	8	3
Minneapolis, Minn.	37		St. Joseph, Mo.	39	13
Mishawaka, Ind.	3		St. Paul, Minn.	2	23
Missoula, Mont.	2		Salem, Mass.	4	2
Mobile, Ala.	4	3	Salem, Oreg.		1
Montgomery, Ala.		3	Salt Lake City, Utah	1	21
Morgantown, W. Va.	3		San Bernardino, Calif.		1
Morristown, N. J.		6	San Diego, Calif.	16	14
Moundsville, W. Va.	4	10	Sandusky, Ohio		2
Mount Vernon, N. Y.	39	21	Sanford, Me.	1	
Muscatine, Iowa		7	San Francisco, Calif.	20	14
Nashua, N. H.	17	2	Santa Barbara, Calif.	1	
Nashville, Tenn.	2	6	Santa Cruz, Calif.		1
Newark, N. J.	222	46	Saratoga Springs, N. Y.	11	1
New Bedford, Mass.	8	15	Sault Ste. Marie, Mich.	7	2
New Britain, Conn.	25	3	Savannah, Ga.		6
New Brunswick, N. J.	14		Schenectady, N. Y.	5	3
Newburyport, Mass.	3	3	Sioux Falls, S. Dak.	4	2
New Castle, Ind.	50	8	Somerville, Mass.	4	6
New Haven, Conn.		9	South Bend, Ind.		25
New London, Conn.	19	2	Spartanburg, S. C.	8	4
New Orleans, La.	20	32	Springfield, Mass.	15	3
New Philadelphia, Ohio	2		Springfield, Mo.		8
Newport, R. I.	4	4	Springfield, Ohio		18
Newton, Mass.	7	4	Stamford, Conn.	5	
New York, N. Y.	4,535	1,023	Staunton, Va.		5
Niagara Falls, N. Y.	17	6	Steubenville, Ohio	8	
Norfolk, Va.	35	20	Stockton, Calif.	3	6
North Adams, Mass.	1		Superior, Wis.		15
North Little Rock, Ark.	2		Syracuse, N. Y.	142	57
North Tonawanda, N. Y.	20	1	Taunton, Mass.	2	2
Norwalk, Conn.	2	8	Terre Haute, Ind.	1	4
Norwich, Conn.	5	3	Tiffin, Ohio	6	1
Norwood, Ohio	7	2	Toledo, Ohio		36
Oakland, Calif.	10	17	Topeka, Kans.	18	6
Oak Park, Ill.	9	10	Traverse City, Mich.	1	1
Oklahoma City, Okla.	8	4	Trenton, N. J.	34	22
Olean, N. Y.	3	1	Troy, N. Y.	36	8
Omaha, Nebr.		32	Tucson, Ariz.		1
Orange, Conn.		1	Vallejo, Calif.		6
Orange, N. J.	22	6	Waco, Tex.	1	10
Paducah, Ky.	1		Wakefield, Mass.	3	1
Parsons, Kans.	3	1	Waltham, Mass.	2	1
Pasadena, Calif.	9	2	Washington, D. C.		102
Passaic, N. J.	45	6	Waterbury, Conn.	48	2
Paterson, N. J.	109	2	Watertown, Mass.	2	1
Pawtucket, R. I.		2	Watertown, N. Y.	19	1
Peekskill, N. Y.	3	3	Wausau, Wis.	9	3
Peoria, Ill.	32	18	West Hoboken, N. J.	15	8
Perth Amboy, N. J.	9	7	West New York, N. J.		1
Petersburg, Va.	5	2	West Orange, N. J.	4	
Philadelphia, Pa.	373	182	Wheeling, W. Va.	4	10
Phillipsburg, N. J.		2	White Plains, N. Y.	22	4
Piqua, Ohio	21	4	Wichita, Kans.	7	25
Pittsfield, Mass.	9	4	Wilmington, Del.		11
Plainfield, N. J.		2	Wilmington, N. C.	4	1
Plymouth, Mass.		2	Winchester, Mass.	1	
Pontiac, Mich.	76	26	Winona, Minn.	1	
Port Chester, N. Y.	5	3	Winston-Salem, N. C.	65	2
Portland, Me.	21	8	Winthrop, Mass.	4	1
Portland, Oreg.		17	Woburn, Mass.		4
Portsmouth, N. H.	1		Worcester, Mass.	10	8
Portsmouth, Va.	18	5	Yonkers, N. Y.	49	20
Poughkeepsie, N. Y.	17	16	Zanesville, Ohio	4	2
Providence, R. I.		26			



**POLIOMYELITIS (INFANTILE PARALYSIS).**

State Reports for December, 1919, and January, 1920.

Place.	New cases reported.	Place.	New cases reported.
<b>California (December, 1919):</b>		<b>Maryland (January, 1920):</b>	
Los Angeles County:		Baltimore.....	3
Los Angeles.....	1	<b>Michigan (January, 1920):</b>	
<b>Florida (January, 1920):</b>		Jackson County.....	1
Putnam County.....	1	Menominee County.....	1
<b>Illinois (December, 1919):</b>		Wayne County.....	1
Cook County—		Total.....	3
Chicago.....	2	<b>Minnesota (December, 1919):</b>	
Greene County—		Stearns County—	
White Hall Township.....	1	St. Cloud.....	1
Carrollton.....	1	Yellow Medicine County—	
Kankakee County—		Hazel Run Township.....	1
Kankakee Township.....	1	Total.....	2
Lake County—		<b>New Mexico (January, 1920):</b>	
Ela Township.....	2	Dona Ana County.....	1
McHenry County—		<b>Rhode Island (January, 1920):</b>	
Marengo.....	1	Providence County—	
Rock Island County—		Providence.....	1
East Moline.....	1	<b>West Virginia (January, 1920):</b>	
St. Clair County—		Putnam County.....	1
Mascoutah.....	1		
McDonough County—			
Mound Township.....	1		
Total.....	11		
<b>Louisiana (January, 1920):</b>			
Winn Parish.....	1		

**Baltimore, Md., Bloomington, Ill., and Los Angeles, Calif.**

During the week ended February 7, 1920, two cases and one death from poliomyelitis were reported at Baltimore, Md.; one case was reported at Bloomington, Ill.; and one at Los Angeles, Calif.

**RABIES IN MAN.****Colorado Report for December, 1919.**

During December, 1919, one case of rabies in man was reported in Colorado.

**SCARLET FEVER.**

See Telegraphic weekly reports from States, page 464; Monthly summaries by States, page 469; and Weekly reports from cities, page 494.

**SMALLPOX.**

**State Reports for December, 1919, and January, 1920—Vaccination Histories.**

Place.	Newcases 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.
<b>California (December, 1919):</b>						
Alameda County—						
Alameda City.....	14				9	5
Oakland.....	2				1	1
Butte County.....	1				1	
Chico.....	4	1		2	2	
Contra Costa County—						
Concord.....	3			1	2	
Martinez.....	1				1	
Pittsburg.....	19				17	2
Walnut Creek.....	4				2	2
Del Norte County.....	1				1	
Fresno County.....	9				9	
Coalinga.....	1					1
Humboldt County.....	10			2	8	
Arcata.....	2				2	
Blue Lake.....	1				1	
Eureka.....	2				1	1
Imperial County—						
Holtville.....	3				3	
Kern County.....	2		1		1	
Bakersfield.....	1				1	
Kings County—						
Hanford.....	1				1	
Los Angeles County.....	11				11	
El Segunda.....	1				1	
Long Beach.....	18	1			18	
Los Angeles.....	24			2	22	
Pasadena.....	3				3	
Pomona.....	1				1	
South Pasadena.....	1				1	
Venice.....	1				1	
Whittier.....	9				4	5
Madera County.....	1			1		
Mendocino County.....	1			1		
Willits.....	1		1			
Merced County—						
Merced.....	1				1	
Monterey County—						
Monterey.....	1				1	
Napa County.....	16				12	4
Napa.....	63	1	4	1	42	16
Orange County.....	1				1	
Brea.....	1					1
Orange.....	1				1	
Riverside County.....	13				6	7
Blythe.....	1				1	
Riverside.....	15			2	10	3
Sacramento County—						
Sacramento.....	6				5	1
San Bernardino County.....	2				1	1
Chino.....	1				1	
Rialto.....	1				1	
San Bernardino.....	2				2	
San Diego County—						
Oceanside.....	1				1	
San Diego.....	2				1	1
San Francisco.....	13				12	1
San Joaquin County.....	11				5	6
Manteca.....	7				3	4
Stockton.....	4				3	1
San Luis Obispo County.....	1			1		
Santa Clara County.....	1				1	
San Jose.....	4			2	2	
Shasta County.....	1				1	
Sonoma County—						
Healdsburg.....	3			1	2	
Stanislaus County.....	2				2	
Turlock.....	4				1	3
Tulare County.....	2				1	1
Ventura County.....	1					1
Fillmore.....	5				5	
Ventura.....	1		1			
<b>Total.....</b>	<b>341</b>	<b>3</b>	<b>7</b>	<b>16</b>	<b>250</b>	<b>68</b>

## SMALLPOX—Continued.

## State Reports for December, 1919, and January, 1920—Vaccination Histories—Con.

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.
<b>Colorado (December, 1919):</b>						
Arapahoe County.....	3				2	1
Bent County.....	9				9	
Delta County.....	5		1		4	
Denver.....	180		20		158	2
El Paso County.....	8		1		1	6
Huerfano County.....	11				9	2
Jefferson County.....	6				6	
La Plata County.....	17		2		14	1
Larimer County.....	33		2		26	5
Las Animas County.....	1					1
Lincoln County.....	7		2		3	2
Morgan County.....	1					1
Otero County.....	1				1	
Prowers County.....	1				1	
Pueblo County.....	7				5	2
Rio Blanco County.....	4				4	
San Miguel County.....	6				4	2
Washington County.....	4				4	
Weld County.....	39		4		34	1
<b>Total.....</b>	<b>343</b>		<b>32</b>		<b>285</b>	<b>26</b>
<b>Florida (January, 1920):</b>						
Duval County—						
Jacksonville.....	1					1
Escambia County.....	228				208	20
Pensacola.....	2					2
Hillsborough County—						
Tampa.....	2					2
Holmes County.....	2				1	1
Lake County.....	1					1
Santa Rosa County.....	1				1	
Washington County.....	1				1	
<b>Total.....</b>	<b>238</b>				<b>211</b>	<b>27</b>
<b>Maryland (January, 1920):</b>						
Baltimore.....	4				4	
Allegany County—						
Cumberland.....	3				3	
McCool.....	3				3	
Dorchester County—						
Cambridge.....	1				1	
Prince Georges County—						
Fort Washington.....	2				2	
Washington County—						
Hagerstown.....	1				1	
<b>Total.....</b>	<b>14</b>				<b>14</b>	
<b>Michigan (January, 1920):</b>						
Alger County.....	2				1	1
Baraga County.....	1					1
Barry County.....	11				3	8
Bay County.....	5					5
Berrien County.....	1				1	
Branch County.....	8				3	5
Calhoun County.....	7				5	2
Charlevoix County.....	2				2	
Cheboygan County.....	2				2	
Clare County.....	1					1
Clinton County.....	3				2	1
Crawford County.....	3				2	1
Delta County.....	4			1	3	
Eaton County.....	2				1	1
Emmet County.....	2		2			
Genesee County.....	27			1	3	23
Gogebic County.....	47		7	2	18	20
Grand Traverse County.....	6		1	1		4
Houghton County.....	22			3	13	6
Huron County.....	3					3

**SMALLPOX—Continued.**

**State Reports for December, 1919, and January, 1920—Vaccination Histories—Con.**

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.
<b>Michigan—Continued.</b>						
Ingham County.....	100		1	5	16	78
Ionia County.....	15		1		11	3
Iron County.....	1		1			
Isabella County.....	2				2	
Jackson County.....	6				2	4
Kalamazoo County.....	9				7	2
Kalkaska County.....	4					4
Lake County.....	1					1
Macomb County.....	1				1	
Manistee County.....	33				10	23
Menominee County.....	2					2
Montcalm County.....	4				4	
Muskegon County.....	2					2
Newaygo County.....	8					8
Oakland County.....	23		2	2		19
Oceana County.....	11				3	8
Ontonagon County.....	1				1	
Osceola County.....	2				1	1
Otsego County.....	2		1		1	
Presque Isle County.....	4					4
Schoolcraft County.....	3		1		2	
St. Joseph County.....	1				1	
Tuscola County.....	1					1
Van Buren County.....	2				2	
Washtenaw County.....	2				2	
Wayne County.....	79				5	74
<b>Total.....</b>	<b>478</b>		<b>17</b>	<b>15</b>	<b>130</b>	<b>316</b>
<b>Minnesota (December, 1919):</b>						
<b>Becker County—</b>						
Detroit.....	9				9	
Audubon Township.....	2				2	
Lake View Township.....	1				1	
Lake Eunice Township.....	1				1	
<b>Bigstone County—</b>						
Ortonville.....	1				1	
Beardsley.....	4				4	
Graceville.....	1					1
Graceville Township.....	1				1	
<b>Blue Earth County—</b>						
Mankato.....	1				1	
<b>Clay County—</b>						
Ulen.....	1					1
Egion Township.....	1				1	
Highland Grove Township.....	1				1	
Parke Township.....	1				1	
<b>Clearwater County—</b>						
Dudley Township.....	1				1	
<b>Douglas County—</b>						
Alexandria.....	14				14	
Solem Township.....	1				1	
Urness Township.....	1				1	
La Grand Township.....	1				1	
<b>Faribault County—</b>						
Blue Earth.....	2				2	
Frost.....	3				3	
Winnebago.....	4				4	
Emerald Township.....	1				1	
<b>Fillmore County—</b>						
York Township.....	1				1	
<b>Hennepin County—</b>						
Browndale.....	1				1	
Minneapolis.....	76		4	5	55	12
Medina Township.....	17				17	
<b>Hubbard County—</b>						
Park Rapids.....	12				11	1
Nevis Township.....	1				1	
<b>Isanti County—</b>						
Braham.....	1				1	
Cambridge.....	2			1	1	

## SMALLPOX—Continued.

## State Reports for December, 1919, and January, 1920—Vaccination Histories—Con.

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.
Minnesota—Continued.						
Isanti County—Continued.						
Cambridge Township	1				1	
Stanford Township	1			1		
Wyanett Township	10				10	
Itasca County—						
Deer River	1				1	
Keewatin	1				1	
Kanabec County—						
Mora	3				3	
Arthur Township	3				3	
Comfort Township	1				1	
South Fork Township	1				1	
Koochiching County—						
Rat Root Township	1		1			
Martin County—						
Truman	2				2	
Silver Lake Township	1				1	
Mille Lacs County—						
Isle Harbor Township	1				1	
Olmsted County—						
Rochester	6				6	
Pleasant Grove Township	1				1	
Salem Township	7				7	
Ottertail County—						
Fergus Falls	1				1	
Friberg Township	1				1	
Maplewood Township	1				1	
Ramsey County—						
St. Paul	29				29	
Rice County—						
Faribault	8				8	
Rock County—						
Luverne	1				1	
Clinton Township	3				3	
St. Louis County—						
Duluth	2				2	
Hibbing	1				1	
Scott County—						
Shakopee	3				3	
Stearns County—						
Kimball	8			1	7	
St. Cloud	28				28	
Waite Park	1				1	
Fair Haven Township	1				1	
Steele County—						
Owatonna	5				5	
Havana Township	1				1	
Todd County—						
Staples	25			3	22	
Traverse County—						
Wheaton	1				1	
Redpath	1				1	
Tara Township	4				4	
Wabasha County—						
Lake City	1				1	
Millville	1				2	
Zumbro Falls	2				2	
Chester Township	3		1		2	
Elgin Township	1				1	
Wadena County—						
Wadena	1				1	
Wing River Township	1				1	
Washington County—						
St. Paul Park	26				26	
Cottage Grove Township	1			1		
Total	397		6	12	364	15

**SMALLPOX—Continued.**

**State Reports for December, 1919, and January, 1920—Vaccination Histories—Con.**

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.
<b>New Mexico (January, 1920):</b>						
Bernalillo County.....	6				2	4
Chaves County.....	4			1	2	1
Dona Ana County.....	8				6	2
Eddy County.....	2				2	
Grant County.....	9			1	3	
Lincoln County.....	3				1	2
Otero County.....	36				13	23
San Juan County.....	5				5	
Santa Fe County.....	1				1	
Sierra County.....	19			2	17	
Socorro County.....	2				1	
Torrance County.....	5				5	1
Union County.....	1			1		
Valencia County.....	1				1	
<b>Total.....</b>	<b>102</b>			<b>5</b>	<b>64</b>	<b>33</b>

**State Reports for December, 1919, and January, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Arizona (January, 1920):</b>			<b>Illinois—Continued.</b>		
Maricopa County.....	7		Gallatin County.....	2	
Yavapai County.....	3		Equality.....	17	
<b>Total.....</b>	<b>10</b>		Greene County.....	37	
<b>Delaware (January, 1920):</b>			Athensville.....	12	
Millford.....	3		Greenfield.....	3	
Dagsboro.....	4		White Hall.....	4	
Robinsville.....	1		Roadhouse.....	15	
Georgetown.....	8		Hillview.....	5	
<b>Total.....</b>	<b>16</b>		Wrights township.....	2	
<b>Illinois (December, 1919):</b>			Bluffdale Township.....	2	
Adams County—			Carrollton.....	3	
Clayton.....	1		Walkerville.....	3	
Quincy Soldiers' Home.....	2		Hamilton County.....	11	
Calhoun County.....	29		Crook Township.....	2	
Belleview Precinct.....	2		Broughton.....	39	
Hardin.....	2		McLeansboro.....	1	
Cass County.....	10		Henderson County.....	4	
Christian County—			Jackson County.....	8	
May township.....	3		Cora.....	2	
Taylorville.....	2		Carbondale.....	1	
Cook County—			Jasper County.....	1	
Chicago.....	8		Jefferson County.....	7	
Cumberland County—			Jersey County—		
Greenup.....	1		Jerseyville.....	1	
Dekalb County—			Johnson County.....	4	
Kirkwood.....	3		Kane County—		
Eagan County.....	31		Aurora.....	3	
Edgar County—			Victoria.....	2	
Stratton.....	3		Kendall County.....	2	
Stratton township.....	4		Knox County—		
Chrisman.....	1		Galesburg.....	5	
Paris.....	1		Victoria Township.....	1	
Edwards County.....	8		Logan County—		
Browns.....	1		Lincoln.....	1	
Franklin County.....	18		Lawrence County.....	3	
Benton.....	10		McHenry County—		
Eastern township.....	6		Spring Grove.....	1	
			McLean County—		
			Normal.....	2	
			Macon County.....	1	
			Macoupin.....	11	
			Carlinbelle Township.....	1	

## SMALLPOX—Continued.

## State Reports for December, 1919, and January, 1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Illinois—Continued.</b>			<b>Louisiana—Continued.</b>		
Madison County—			Orleans Parish.....	83	
Alton.....	2		Ouachita Parish.....	4	
Madison.....	1		St. James Parish.....	1	
East Alton.....	2		Vermilion Parish.....	1	
Lebanon.....	1		Washington Parish.....	1	
Marion County.....	1		Total.....	123	
Mason County.....	4		<b>Nebraska (January, 1920):</b>		
Mercer County.....	1		Adams County.....	11	
Perrytown Township.....	1		Antelope County.....	39	
Morgan County.....	2		Banner County.....	1	
Jacksonville.....	2		Boone County.....	1	
Murrayville.....	6		Box Butte County.....	21	
Peoria County—			Boyd County.....	1	
Peoria.....	5		Buffalo County.....	1	
Bartonville.....	2		Cheyenne County.....	43	
Perry County.....	7		Clay County.....	1	
Piatt County—			Collax County.....	2	
De Lana.....	1		Custer County.....	8	
Pike County.....	4		Dawes County.....	3	
Newburg Township.....	2		Dawson County.....	1	
Pearl.....	3		Denel County.....	4	
Pulaski County.....	10		Dodge County.....	7	
Richland County—			Douglas County.....	64	
Olney.....	1		Gage County.....	21	
Madison Township.....	2		Garfield County.....	1	
Rock Island County.....	4		Gosper County.....	4	
Rock Island.....	10		Hall County.....	1	
Moline.....	4		Hamilton County.....	1	
Saline County.....	29		Hitchcock County.....	1	
Sangamon County.....	2		Iiolt County.....	14	
Springfield.....	4		Howard County.....	9	
New Berlin Township.....	1		Jefferson County.....	1	
Schuyler County.....	2		Kearney County.....	5	
Scott County.....	3		Keith County.....	4	
Glasgow.....	3		Kimball County.....	2	
Manchester.....	5		Lancaster County.....	75	
St. Clair County.....	2		Loup County.....	1	
Freeburg.....	2		Madison County.....	3	
O'Fallon.....	3		Merrick County.....	6	
Union County.....	8		Morrill County.....	1	
Vermilion County.....	1		Nemaha County.....	8	
Danville.....	2		Nuckolls County.....	10	
Wabash County.....	2		Otoe County.....	10	
Warren County.....	14		Fawnee County.....	1	
Monmouth.....	131		Ferkins County.....	4	
Kirkwood.....	15		Phelps County.....	10	
Lenox Township.....	5		Platte County.....	1	
Swan Creek.....	1		Richardson County.....	54	
Swan Township.....	3		Saline County.....	1	
Little York.....	1		Saunders County.....	28	
Kelley Township.....	2		Scotts Bluff County.....	1	
Hale Township.....	1		Seward County.....	13	
White County.....	10		Sheridan County.....	9	
Indian Creek Town- ship.....	13		Sioux County.....	3	
Whiteside County—			Thomas County.....	1	
Morrison.....	2		Wayne County.....	2	
Newton Township.....	2		Webster County.....	2	
Will County—			Wheeler County.....	2	
Joliet.....	2		York County.....	20	
Wheatland Township.....	2		Total.....	538	
Williamson County—			<b>West Virginia (January, 1920):</b>		
Marion.....	1		Berkeley County.....	8	
Winnebago County.....	1		Boone County.....	1	
Rockford.....	2		Braxton County.....	39	
Total.....	629		Brooke County.....	2	
<b>Louisiana (January, 1920):</b>			Cabell County.....	12	
Assumption Parish.....	2		Clay County.....	3	
Aryoyelles Parish.....	2		Doddridge County.....	2	
Beauregard Parish.....	1		Fayette County.....	42	
Caddo Parish.....	12		Hancock County.....	8	
East Carroll Parish.....	1		Hardy County.....	1	
Iberville Parish.....	7		Harrison County.....	4	
Jefferson Parish.....	4		Kanawha County.....	10	
Jefferson Davis Parish.....	1		Lewis County.....	1	
Lafayette Parish.....	1		Lincoln County.....	8	
Natchitoches Parish.....	2				

SMALLPOX—Continued.

State Reports for December, 1919, and January, 1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
West Virginia—Continued.			West Virginia—Continued.		
Logan County.....	1		Ritchie County.....	1	
McDowell County.....	37		Taylor County.....	5	
Marion County.....	12		Upshur County.....	9	
Marshall County.....	2		Wayne County.....	10	
Mercer County.....	129		Webster County.....	18	
Mineral County.....	5		Wood County.....	2	
Mingo County.....	31		Wyoming County.....	1	
Monroe County.....	5				
Preston County.....	5		Total.....	431	
Raleigh County.....	20				

City Reports for Week Ended Feb. 7, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	3		Logansport, Ind.....	2	
Alameda, Calif.....	3		Long Beach, Calif.....	2	
Appleton, Wis.....	2		Los Angeles, Calif.....	8	
Auburn, Me.....	2		Louisville, Ky.....	1	
Baltimore, Md.....	1		Ludington, Mich.....	5	
Birmingham, Ala.....	10		Lynchburg, Va.....	1	
Bluefield, W. Va.....	8		Madison, Wis.....	3	
Boise, Idaho.....	9		Manitowoc, Wis.....	1	
Buffalo, N. Y.....	3		Mankato, Minn.....	1	
Canton, Ohio.....	4		Marion, Ind.....	1	
Cedar Rapids, Iowa.....	4		Marion, Ohio.....	3	
Chicago, Ill.....	2		Marshalltown, Iowa.....	9	
Cleveland, Ohio.....	4		Mason City, Iowa.....	5	
Coffeyville, Kans.....	1		Memphis, Tenn.....	12	
Columbus, Ohio.....	2		Middletown, Ohio.....	1	
Council Bluffs, Iowa.....	3		Milwaukee, Wis.....	18	
Dallas, Tex.....	51		Minneapolis, Minn.....	26	
Danville, Va.....	1		New Orleans, La.....	24	1
Davenport, Iowa.....	13		Oakland, Calif.....	2	
Dayton, Ohio.....	3		Ogden, Utah.....	37	
Denver, Colo.....	56		Oklahoma City, Okla.....	2	
Detroit, Mich.....	15		Omaha, Nebr.....	16	
Dubuque, Iowa.....	5		Paducah, Ky.....	17	
Duluth, Minn.....	2		Peoria, Ill.....	4	
Durham, N. C.....	1		Pine Bluff, Ark.....	4	
El Paso, Tex.....	1		Pontiac, Mich.....	1	
Flint, Mich.....	3		Portland, Oreg.....	110	
Fond du Lac, Wis.....	5		Portsmouth, Va.....	1	
Fort Smith, Ark.....	2		Pueblo, Colo.....	3	
Fort Worth, Tex.....	12		Racine, Wis.....	1	
Galesburg, Ill.....	9		Riverside, Calif.....	3	
Galveston, Tex.....	1		Rock Island, Ill.....	7	
Gary, Ind.....	2		St. Cloud, Minn.....	3	
Grand Rapids, Mich.....	1		St. Joseph, Mo.....	23	
Granite City, Ill.....	1		St. Louis, Mo.....	9	
Great Falls, Mont.....	5		St. Paul, Minn.....	15	
Green Bay, Wis.....	8		Salem, Oreg.....	5	
Hammond, Ind.....	3		San Francisco, Calif.....	8	
Hot Springs, Ark.....	2		Santa Barbara, Calif.....	7	
Huntington, Ind.....	1		Sioux Falls, S. Dak.....	2	
Hutchinson, Kans.....	1		South Bend, Ind.....	6	
Ironwood, Mich.....	2		Spartanburg, S. C.....	1	
Janesville, Wis.....	4		Springfield, Ohio.....	1	
Kalamazoo, Mich.....	1		Steubenville, Ohio.....	3	
Kansas City, Kans.....	6		Superior, Wis.....	8	
Kansas City, Mo.....	13		Trinidad, Colo.....	1	
Kenosha, Wis.....	6		Washington, D. C.....	4	
Kewanee, Ill.....	1		Wausau, Wis.....	4	
Knoxville, Tenn.....	2		Wichita, Kans.....	9	
Kokomo, Ind.....	17		Wilmington, Del.....	1	
La Fayette, Ind.....	1		Wilmington, N. C.....	1	
Leavenworth, Kans.....	2		Winston-Salem, N. C.....	2	
Lincoln, Nebr.....	27		Zanesville, Ohio.....	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 12 to February 18, 1920, inclusive, as follows:

<i>Vaccinations.</i>	
Buffalo.....	347
Detroit.....	929
Niagara Falls.....	207
Ogdensburg <sup>1</sup> .....	59
Port Huron.....	342
Sault Ste. Marie <sup>1</sup> .....	53

**TETANUS.****City Reports for Week Ended Feb. 7, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill.....	2	1	Richmond, Va.....		1
New York, N. Y.....	1		Wilmington, N. C.....		2

**TUBERCULOSIS.**

See Telegraphic weekly reports from States, p. 464 and Weekly reports from cities, p. 494.

**TYPHOID FEVER.****State Reports for December, 1919, and January, 1920.**

Place.	New cases reported.	Place.	New cases reported.
Arizona (January, 1920):		Colorado (December, 1919):	
Mohave County.....	1	Denver County.....	3
California (December, 1919):		Kiowa County.....	1
Alameda County—		Prowers County.....	1
Oakland.....	1	Pueblo County.....	1
Fresno County.....	1	Weld County.....	1
Clovis.....	1	Total.....	7
Imperial County—		Delaware (January, 1920):	
El Centro.....	1	Wilmington.....	1
Kern County—		Milford.....	1
Taft.....	1	Middletown.....	1
Los Angeles County.....	2	Dover.....	1
Arcadia.....	1	Total.....	4
Los Angeles.....	12	Florida (January, 1920):	
Madera County—		Baker County.....	1
Madera.....	1	Bay County.....	1
Merced County.....	1	Bradford County.....	1
Monterey County.....	3	Columbia County.....	2
King City.....	2	Dade County—	
Riverside County.....	1	Miami.....	3
Banning.....	1	De Soto County.....	2
Sacramento County—		Duval County.....	2
Sacramento.....	2	Jacksonville.....	2
San Francisco.....	2	Escambia County.....	1
San Joaquin County—		Pensacola.....	1
Manteca.....	1	Hillsboro County.....	2
Sonoma County.....	2	Tampa.....	9
Stanislaus County.....	1	Holmes County.....	1
El Dorado County.....	1	Jefferson County.....	1
Total.....	38		

<sup>1</sup> No report for Feb. 18.

TYPHOID FEVER—Continued.

State Reports for December, 1919, and January, 1920—Continued.

Place.	New cases reported.	Place.	New cases reported.
<b>Florida—Continued.</b>		<b>Illinois—Continued.</b>	
Madison County.....	2	Saline County.....	13
Manatee County.....	3	Sangamon County—	
Orange County.....	2	Springfield.....	1
Pinellas County.....	3	Williamsville.....	1
Polk County.....	2	St. Clair County.....	1
Volusia County.....	6	East St. Louis.....	1
		Belleville.....	2
		St. Liberty.....	1
Total.....	47	Tazewell County—	
		Farmington.....	2
<b>Illinois (December, 1919):</b>		Vermilion County—	
Adams County—		Danville.....	1
Quincy.....	2	Potomac.....	1
Alexander County—		Wabash County.....	1
Elco.....	1	Will County—	
Brown County—		Joliet.....	3
Mount Sterling.....	1	Joliet Township.....	2
Christian County.....	2	Williamson County—	
Taylorville.....	1	Cambria.....	1
Clark County—		Winneshago County—	
Marshall.....	3	Rockford.....	1
West Union.....	1	Total.....	165
Coles County.....	3		
Mattoon.....	1	<b>Louisiana (January, 1920):</b>	
Cook County.....	21	Allen Parish.....	2
Chicago.....		Avoyesles Parish.....	5
Crawford County—		Beauregard Parish.....	1
Oblong.....	3	Caddo Parish.....	12
Cumberland County.....	1	Caldwell Parish.....	1
Dewitt County.....	1	De Soto Parish.....	2
Douglas County.....	2	Grant Parish.....	1
Fayette County—		Iberville Parish.....	1
St. Peter.....	1	Lafayette Parish.....	2
Wilberton.....	1	Lafourche Parish.....	1
St. Elmo.....	2	Natchitoches Parish.....	1
Franklin County—		Orleans Parish.....	7
West Frankfort.....	3	Ouachita Parish.....	2
Ziegler.....	11	Pointe Coupee Parish.....	1
Gallatin County.....	1	Rapides Parish.....	1
Eagle Creek Township.....	2	Sabine Parish.....	1
Hamilton County—		St. John Parish.....	1
McLeansboro.....	1	St. Martin Parish.....	1
Henry County.....	8	Webster Parish.....	1
Jackson County.....	4	Total.....	44
Jefferson County—			
Webber Township.....	1	<b>Maryland (January, 1920):</b>	
Kankakee County.....	5	Baltimore.....	15
Lake County—		Baltimore County—	
Waukegan.....	2	Catonsville.....	1
North Chicago.....	4	Oella.....	1
Lawrence County.....	2	Cecil County—	
Logan County—		Elkton.....	2
Lincoln.....	1	Charles County—	
McDonough County—		Waldorf.....	1
Hue Township.....	1	Riverside.....	1
Macon County.....	2	Bryantown, R. D.....	1
Decatur.....	1	Dorchester County—	
Madison County.....	1	Hurlock, R. D.....	1
Alton.....	2	Frederick County—	
Wood River.....	2	Libertytown.....	1
Marion County.....	3	Brunswick.....	1
Odin.....	4	Middletown.....	1
Montgomery County.....	2	Garrett County—	
Litchfield.....	3	Kitzmiller.....	1
Farmersville.....	2	Kent County—	
Morgan County—		Galena, R. D.....	1
Woodson.....	7	Prince Georges County—	
Jacksonville.....	3	Aquasco.....	1
Ogle County.....	1	Queen Annes County—	
Pine Rock Township.....	2	Sudlersville, R. D.....	1
Peoria County.....	1	Somerset County—	
Pike County.....	2	Dunes Quarter.....	1
New Canton.....	1	Westover, R. D.....	1
Randolph County.....	1	St. Marys County—	
Kaskaskia Township.....	1	Jonestown.....	1
Richland County.....	1	Talbot County—	
Olney.....	1	Trappe, R. D.....	1
Rock Island County.....	1		
East Moline.....	1		
Moline.....	2		

## TYPHOID FEVER—Continued.

## State Reports for December, 1919, and January, 1920.

Place.	New cases reported.	Place.	New cases reported.
<b>Maryland—Continued.</b>		<b>Minnesota—Continued.</b>	
Washington County—		Watowan County—	
Indian Spring.....	2	St. James.....	1
Boonsboro.....	1	Wilkin County—	
Williamsport, R. D.....	2	Tenney.....	1
Total.....	39	Campbell Township.....	1
<b>Michigan (January, 1920):</b>		Winona County—	
Allegan County.....	1	Lewiston.....	1
Calhoun County.....	3	Wright County—	
Chippewa County.....	1	Maple Lake.....	1
Genesee County.....	2	Total.....	45
Grand Traverso County.....	1	<b>Nebraska (January, 1920):</b>	
Gratiot County.....	2	Cuming County.....	1
Hillsdale County.....	1	Douglas County.....	3
Ingham County.....	3	Holt County.....	1
Iron County.....	1	Knox County.....	1
Isabella County.....	2	Lancaster County.....	1
Kent County.....	2	Total.....	7
Lapeer County.....	1	<b>New Mexico (January, 1920):</b>	
Lenawee County.....	2	Bernalillo County.....	3
Manistee County.....	1	Chaves County.....	1
Monroe County.....	1	Colfax County.....	1
Oakland County.....	2	De Baca County.....	1
Saginaw County.....	6	Grant County.....	2
St. Clair County.....	2	Otero County.....	2
St. Joseph County.....	1	Quay County.....	1
Wayne County.....	13	Rio Arriba County.....	3
Total.....	48	Socorro County.....	1
<b>Minnesota (December, 1919):</b>		Total.....	15
Beltrami County—		<b>Rhode Island (January, 1920):</b>	
Benadict.....	2	Newport County—	
Chippewa County—		Newport.....	1
Montevideo.....	1	<b>Vermont (January, 1920):</b>	
Clay County—		Addison County.....	6
Moorhead.....	1	Bennington County.....	1
Oakport Township.....	2	Chittenden County.....	1
Crow Wing County—		Orleans County.....	1
Deerwood.....	1	Washington County.....	3
Dakota County—		Total.....	12
Hastings.....	1	<b>West Virginia (January, 1920):</b>	
South St. Paul.....	1	Barbour County.....	4
Hennepin County—		Boone County.....	1
Minneapolis.....	1	Fayette County.....	8
Murray County—		Gilmer County.....	1
Iona.....	1	Hancock County.....	3
Norman County—		Kanawha County.....	18
Felton Township.....	1	Lexis County.....	7
Olmsted County—		Lincoln County.....	1
Rochester.....	1	Logan County.....	4
Ottertail County—		Marion County.....	5
Deer Creek.....	1	Mason County.....	2
Fergus Falls.....	1	Mercer County.....	6
Aurdal Township.....	2	Mineral County.....	1
Deer Creek Township.....	4	Mingo County.....	5
Pennington County—		Monongalia County.....	11
St. Hilaire.....	1	Monroe County.....	2
Polk County—		Nicholas County.....	1
East Grand Forks.....	1	Ohio County.....	3
Ramsey County—		Pleasants County.....	1
St. Paul.....	4	Pocahontas County.....	7
Renville County—		Putnam County.....	2
Franklin.....	1	Raleigh County.....	4
St. Louis County—		Randolph County.....	3
Duluth.....	3	Roane County.....	1
Embarrass Township.....	1	Summers County.....	21
Scott County—		Tyler County.....	2
New Market.....	2	Wayne County.....	7
Stearns County—		Wirt County.....	1
St. Martin.....	1	Wood County.....	3
St. Martin Township.....	1	Total.....	135
Steele County—			
Hertan Township.....	1		
Washington County—			
Newport.....	1		
Stillwater.....	1		

**TYPHOID FEVER—Continued.**

**City Reports for Week Ended Feb. 7, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Allentown, Pa.	1		Milwaukee, Wis.	1	2
Atlanta, Ga.	1		Minneapolis, Minn.	1	
Auburn, N. Y.	1		Montgomery, Ala.	1	
Baltimore, Md.	1		Nashville, Tenn.	2	
Birmingham, Ala.	2	1	Newark, N. J.	1	
Boston, Mass.	1		New Orleans, La.	1	1
Buffalo, N. Y.	3		New Philadelphia, Ohio.	1	
Charleston, S. C.	2		New York, N. Y.	3	
Coffeyville, Kans.	1		Northampton, Mass.	1	1
Dallas, Tex.	2		Oakland, Calif.	1	
Denver, Colo.	2		Philadelphia, Pa.	5	
Detroit, Mich.	2		Portland, Oreg.	1	
Erie, Pa.	1		Richmond, Va.	1	1
Everett, Mass.	1	1	Sacramento, Calif.	1	
Galveston, Tex.	1		St. Louis, Mo.	2	1
Grand Rapids, Mich.	1		San Francisco, Calif.	1	1
Hammond, Ind.	4	3	Savannah, Ga.	2	1
Hutchinson, Kans.	1		Springfield, Mass.	1	
Independence, Mo.	1		Washington, D. C.		1
Joplin, Mo.	1		Waterbury, Conn.	1	
Kokomo, Ind.	2		Wilmington, Del.	1	1
Mattoon, Ill.	1				

**TYPHUS FEVER.**

**Maryland Report for January, 1920.**

During January, 1920, two cases of typhus fever were reported in Maryland.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.**

**City Reports for Week Ended Feb. 7, 1920.**

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Aberdeen, S. Dak.	15,926		2							
Adams, Mass.	14,406	2								
Akron, Ohio	93,604	44	6		132		119			
Alameda, Calif.	28,433	11	1		38		5		1	
Alexandria, La.	16,232	4	3							
Alexandria, Va.	17,933	14								
Allentown, Pa.	65,109				1		1		2	
Alliance, Ohio	19,581				2					
Alpena, Mich.	13,365				16					
Alton, Ill.	23,783	25	1		1		4		1	
Altoona, Pa.	59,712		3						7	
Amesbury, Mass.	10,200	1			1					
Anaconda, Mont.	10,631	8								
Ann Arbor, Mich.	15,041	31			9					1
Anniston, Ala.	14,326								2	
Ansonia, Conn.	16,954	9	1		18		1		1	1
Appleton, Wis.	18,005		1		1		1		2	
Arlington, Mass.	13,073	4			6		2			
Asbury Park, N. J.	14,629	4			1					
Ashtabula, Ohio	22,008	8							1	
Atlanta, Ga.	193,144	90	1		28		2	1	5	6
Atlantic City, N. J.	59,515	17	2	1	71	1	4		1	1
Attleboro, Mass.	19,776	8			1					
Auburn, Me.	16,607	1								
Auburn, N. Y.	37,923	24			3		3			
Austin, Tex.	35,612	8.			1		1		1	
Baltimore, Md.	594,637	351	40	2	144	1	57	2	26	29
Bangor, Me.	26,958						1			

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

City Reports for Week Ended Feb. 7, 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.
Barberton, Ohio	14,187	13	1				1			
Baton Rouge, La.	17,544	9							1	1
Battle Creek, Mich.	30,159	6	3		13		5			
Bayonne, N. J.	72,204	4	4		1				3	
Beatrice, Nebr.	10,437	4								
Beaumont, Tex.	28,851	14								1
Beaver Falls, Pa.	13,749	1	1							
Bedford, Ind.	10,613	1			13					
Belleville, N. J.	12,797				1					
Beloit, Wis.	18,547						11			
Benton Harbor, Mich.	11,099				4					
Berkeley, Calif.	60,427	20	1		78		5			1
Berlin, N. H.	13,892	5								
Bethlehem, Pa.	14,353				3		3		3	
Beverly, Mass.	22,128	6			1		6			1
Billings, Mont.	15,123	6					2		1	
Birmingham, Ala.	189,716	72	3		16		8		6	9
Bloomfield, N. J.	19,013	2			8		3			
Bloomington, Ill.	27,462	16	1				3		4	1
Bloomington, Ind.	11,661	0			10					
Bluefield, W. Va.	16,123		1				3			
Boise, Idaho.	35,951	7								
Boston, Mass.	767,813	408	47	4	278	6	54	4	36	31
Braddock, Pa.	22,060				8		2			
Bradford, Pa.	14,544		1		3					
Brazil, Ind.	10,472	1								1
Bridgeport, Conn.	124,724	60	12		17		7		2	1
Bristol, Conn.	16,318	8	2							
Brocton, Mass.	99,152	17	6	1	78		4		2	2
Brookline, Mass.	33,526	13								1
Brunswick, Ga.	10,984	4					1		1	
Buffalo, N. Y.	475,781	200	49	5	44		20		20	9
Burlington, Iowa	25,144	16					1			
Burlington, Vt.	21,802	11			1					
Butler, Pa.	28,677		1				8			
Butte, Mont.	44,057	22	2				2			
Cadillac, Mich.	10,158	1	1		6					
Cairo, Ill.	15,995	7	1		7					
Cambridge, Mass.	114,293	46	2		8	2	6		5	3
Canton, Ill.	13,674	14								
Canton, Ohio	62,566	59	3	1	4		1			3
Carbondale, Pa.	19,507						1			
Carlisle, Pa.	10,795						3			
Carnegie, Pa.	11,963		1				2			
Cedar Rapids, Iowa	38,033	7	2							
Centraha, Ill.	11,838	6							1	
Chambersburg, Pa.	12,475		3		15					
Chanute, Kans.	12,968	4								
Charleston, S. C.	61,041	25	3		8					3
Charleston, W. Va.	31,060		2							
Charlotte, N. C.	40,759	13			4				1	1
Chattanooga, Tenn.	61,575	25					3			
Chelsea, Mass.	48,405	22	7				2		4	
Chester, Pa.	41,857	3	3		26		1		5	
Chicago, Ill.	2,547,201	1,945	117	11	197	5	326	8	249	85
Chilopee, Mass.	29,930	5	11	1	7		4			
Cincinnati, Ohio	414,248	156	8		165		65		18	11
Cleveland, Ohio	692,259	366	31	2	220		31	3	36	22
Clinton, Mass.	13,075	3								
Coatesville, Pa.	14,948								1	
Coffeyville, Kans.	18,331				1		2			
Cohoes, N. Y.	25,292	7	1				2		1	
Columbia, S. C.	35,165				2					
Columbus, Ga.	25,306	12							5	3
Columbus, Ohio	220,135	136	1		28		20		4	5
Concord, N. H.	22,858	11			18					
Connellsville, Pa.	15,876				1					
Corpus Christi, Tex.	10,789	6							2	1
Council Bluffs, Iowa	31,838	23					3			

\* Population Apr. 15, 1910.

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

City Reports for Week Ended Feb. 7, 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.
Covington, Ky.....	53,623	15			42		1		3	2
Cranston, R. I.....	26,773	6			3					
Cumberland, Md.....	26,686	13			2		3		1	2
Dallas, Tex.....	129,738	109	15	1	1		1		2	8
Danbury, Conn.....	22,931	8			9		1			
Danvers, Mass.....	10,037		1							
Davenport, Iowa.....	49,618		2		1					
Dayton, Ohio.....	128,939	98			10		5	1	6	3
Decatur, Ill.....	41,483	38			119		1			2
Denver, Colo.....	268,439	261	16		23		27			38
Des Moines, Iowa.....	104,052		4				5			
Detroit, Mich.....	619,648	1,147	97	13	108	4	66	5	55	48
Dover, N. H.....	13,276	4								
Dubois, Pa.....	14,924		1		26		8			
Dubuque, Iowa.....	40,066						2			
Duluth, Minn.....	97,077	32			3		5			
Dunmore, Pa.....	21,286						1		1	
Durham, N. C.....	26,160	7	1				1		1	
East Chicago, Ind.....	30,286	22								1
East Cleveland, Ohio.....	13,864		2		53					
Easton, Pa.....	30,854				1				1	
East Orange, N. J.....	43,761	10	4		43		1			
East Providence, R. I.....	18,485		2				1			
East St. Louis, Ill.....	77,312	33			18	1	1		4	1
Elgin, Ill.....	28,562	11	1				1			
Elizabeth, N. J.....	88,830		3	1	64		6			1
Elkhart, Ind.....	22,273	16			2		2		1	
Elmira, N. Y.....	38,272	17	1	1	28		3			
El Paso, Tex.....	69,149	45		3						9
Englewood, N. J.....	12,603	3			5		2			
Erie, Pa.....	76,592		20		24		69		8	
Eureka, Calif.....	15,142	6	6	1						
Evanston, Ill.....	29,304	20			1		5			
Everett, Mass.....	40,160	18	3		8				2	2
Fairmount, W. Va.....	16,111		3							
Fall River, Mass.....	129,828	38	3	1	7		9		5	3
Farrell, Pa.....	<sup>1</sup> 10,190		1		2					
Findlay, Ohio.....	<sup>1</sup> 14,858	7								
Flint, Mich.....	57,386	95	18				14			
Fond du Lac, Wis.....	21,486		1				1			
Fort Smith, Ark.....	29,390		2		1					
Fort Worth, Tex.....	109,597	62					1		1	1
Fostoria, Ohio.....	10,959	9			5				1	
Framingham, Mass.....	14,149	5					1			
Freeport, Ill.....	19,844	27			2					
Fremont, Nebr.....	10,080	4								
Fremont, Ohio.....	11,034	9			2		2			
Galesburg, Ill.....	24,629	16					1			
Galveston, Tex.....	42,650	17					1			
Gardner, Mass.....	17,534	7								
Gary, Ind.....	53,000	27			2		1			
Geneva, N. Y.....	13,915	5					1			
Glens Falls, N. Y.....	17,160	7								
Grand Rapids, Mich.....	132,861	68	2		23		4		12	
Granite City, Ill.....	15,890	8			20	1				2
Great Falls, Mont.....	<sup>1</sup> 13,948	8	5	2	3		3		3	
Greeley, Colo.....	11,942	3								
Greenfield, Mass.....	12,251	4			1					
Greensboro, N. C.....	20,171	13								1
Greensburg, Pa.....	15,881		2		6		2			
Greenwich, Conn.....	19,594	6					2		1	1
Hackensack, N. J.....	17,412	6	1		23		1		1	
Hammond, Ind.....	27,016	15	4		9		7			
Harrisburg, Pa.....	73,276		1		1		1			
Harrison, N. J.....	17,345				1		1			
Hartford, Conn.....	112,831	85	7				14		2	3
Haverhill, Mass.....	49,180	21	7		1		1		3	2
Hazleton, Pa.....	28,181		2				1			
Hibbing, Minn.....	17,550		3		1					
Highland Park, Mich.....	33,859	21	3				4	1	1	1

<sup>1</sup> Population Apr. 15, 1910.

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

City Reports for Week Ended Feb. 7, 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.
Hoboken, N. J.	78,324	47	3	1	18	2	2		3	3
Holland, Mich.	12,459	1								
Holyoke, Mass.	66,508	21			19		12		5	1
Hot Springs, Ark.	17,690	7								
Hudson, N. Y.	12,878	7								1
Huntington, Ind.	10,982	8					4			1
Huntington, W. Va.	47,686	7								1
Hutchinson, Kans.	21,461				2					
Independence, Mo.	11,964	27								
Ironton, Ohio.	14,079	11								
Ironwood, Mich.	15,075	1								
Irvington, N. J.	36,710		2		4					
Ishpeming, Mich.	12,448	4								
Ithaca, N. Y.	16,017	7			2				2	
Jacksonville, Ill.	15,596	21					1			2
Jamestown, N. Y.	37,431	22	1		3		1		1	
Janesville, Wis.	14,411	14			5		3	1		1
Jefferson City, Mo.	13,712	10								
Jersey City, N. J.	312,557		21		57		3		11	
Johnstown, Pa.	70,473		6		16					
Joplin, Mo.	33,490	5	1		1					
Kalamazoo, Mich.	59,498	29			1		9	1	8	1
Kankakee, Ill.	14,270	6					1			
Kansas City, Kans.	192,036		6		46		5		2	
Kansas City, Mo.	305,816	370	8	1	85	4	16	2	9	10
Kearny, N. J.	24,325	9	2		13		2		3	
Keene, N. H.	10,725	7								
Kenosha, Wis.	32,833		1		2		1			
Kewanee, Ill.	13,607	22								
Knoxville, Tenn.	59,112		4	1	74	1	3		1	1
Kokomo, Ind.	21,929	12					7			1
Lackawanna, N. Y.	16,219	6			1		1		2	
La Crosse, Wis.	31,823				1					
La Fayette, Ind.	21,481	10	1		1		3			
Lancaster, Ohio.	16,086	5								
Lancaster, Pa.	51,437		9		13		2		3	
Laurel, Miss.	12,313		1	1						
Lawrence, Kans.	13,477	4							1	4
Lawrence, Mass.	102,923	37	4	1	4		4	2	6	4
Leavenworth, Kans.	19,363	9							1	1
Leominster, Mass.	21,265	5			1				2	
Lexington, Ky.	41,997	22	2		13		1		4	4
Lima, Ohio.	37,145	32			15					
Lincoln, Nebr.	46,957	39	1		2		3	1		1
Lockport, N. Y.	20,028	6								
Logansport, Ind.	21,338	9			8	1	6			
Long Beach, Calif.	29,163	16	1	1			7		1	
Lorain, Ohio.	38,266		1				2	1		
Los Angeles, Calif.	535,485	210	51	1	34		19		60	26
Louisville, Ky.	249,898	118	16		6		4		17	8
Lowell, Mass.	114,366	39	6		3		5		4	4
Ludington, Mich.	10,566	14			2		2			
Lynchburg, Va.	33,497	8	1				1			
Lynn, Mass.	104,534	26	6		1		23		2	
McKeesport, Pa.	48,299				4				1	
McKees Rocks, Pa.	20,785				1		2			
Macon, Ga.	46,099	17			4		2		1	
Madison, Wis.	31,315				19					
Mahanoy City, Pa.	17,709		2		14					
Malden, Mass.	52,243	32	2		3				1	
Manchester, Conn.	15,859	4					4			
Manchester, N. H.	79,697	16	4	1	2		1		5	1
Mantowoc, Wis.	13,231						7			
Mankato, Minn.	10,265	6			4					
Marquette, Wis.	14,610						1			
Marion, Ind.	49,923	15	1		25	1	1			1
Marion, Ohio.	24,129		1							
Mason City, Iowa.	14,988	14			4					
Mattoon, Ill.	12,764				30		1			

1 Population Apr. 15, 1910.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—**  
Continued:

City Reports for Week Ended Feb. 7, 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.
Meadville, Pa.	13,968		2				1			
Medford, Mass.	26,681	16			3		8			1
Melrose, Mass.	17,724	6			5		7			1
Memphis, Tenn.	151,877	76	7		7		8		7	1
Meriden, Conn.	23,431	6	4		4		6		3	1
Methuen, Mass.	14,320	6	1				1			
Middletown, N. Y.	15,890	1	1				9			
Middletown, Ohio.	16,384	8	1		2					1
Milwaukee, Wis.	445,008	300	25	5	31		17	1	27	4
Minneapolis, Minn.	373,448	294	15	1	17		10	3	13	9
Mishawaka, Ind.	17,083	7					5			
Missoula, Mont.	19,075	7							1	1
Mobile, Ala.	59,201	35								
Monessen, Pa.	23,070		4		26		6			
Montgomery, Ala.	44,039	25							2	2
Morgantown, W. Va.	14,444	4			2		1		2	
Morristown, N. J.	13,410	14			1					
Moundsville, W. Va.	11,513	10	1		9		1			
Mount Carmel, Pa.	20,709						4			
Mount Vernon, Ill.	10,043	27			37		1		1	
Muncie, Ind.	25,653		1		23		7			
Muscataine, Iowa.	17,713	10								
Nashua, N. H.	27,541	7					4			
Nashville, Tenn.	118,186	41	3	1	1		1			5
Newark, N. J.	418,789	240	25	5	201		18		36	8
New Bedford, Mass.	121,622	46	6		37		9		8	3
New Britain, Conn.	55,385	7	1		5		8			
New Brunswick, N. J.	25,855		1				1		1	
Newburyport, Mass.	15,291	8								
New Castle, Ind.	14,144	16								
New Castle, Pa.	41,915				19		6			
New Haven, Conn.	152,275	66	7		52	3	12		1	3
New London, Conn.	21,199		2		2					
New Orleans, La.	377,010	147	7	1	7		7	1	36	15
New Philadelphia, Ohio.	10,133				10					
Newport, R. I.	30,585	10	2		1		1		1	
Newton, Mass.	44,345	11	1		4		4			
New York, N. Y.	5,737,492	3,502	339	37	2,035	40	145	4	113	178
Niagara Falls, N. Y.	38,466	20	3		93	1	1		6	4
Norfolk, Va.	91,148		5	1	1					
Norristown, Pa.	31,969		3		1					
North Adams, Mass.	122,019		2							
Northampton, Mass.	20,006	13			5		2			2
North Attleboro, Mass.	11,248	2								
North Braddock, Pa.	15,684				20					
North Little Rock, Ark.	15,515				1				1	
North Tonawanda, N. Y.	14,060	3					9			
Norwalk, Conn.	27,332	15								1
Norwich, Conn.	21,923	4	3		2					1
Norwood, Ohio.	23,269	8	1		5		6			
Oakland, Calif.	206,405	110	1	1	96	2	14		8	7
Oak Park, Ill.	27,816	15	2		2		4		1	2
Ogdensburg, N. Y.	16,845	17								
Ogden, Utah.	32,343	17	1				1			
Oil City, Pa.	20,162								7	
Oklahoma City, Okla.	97,588	22			16		1		1	3
Olean, N. Y.	16,927	10	3		3					
Omaha, Nebr.	177,777	86	2		17		25	2		3
Orange, Conn.	14,393	7			4		1			1
Orange, N. J.	33,636	18			3		2		1	2
Oshkosh, Wis.	36,549				28					
Paducah, Ky.	25,178				3				2	
Parkersburg, W. Va.	21,059	8	1		2					
Parsons, Kans.	15,952		1		2				1	
Pasadena, Calif.	49,670	10	1		3		5		1	
Passaic, N. J.	74,478	31	2		1				1	
Pateron, N. J.	140,512	26	10		18		2		4	
Pawtucket, R. I.	60,666	15						1		
Peckskill, N. Y.	19,034	5								
Peoria, Ill.	72,184	44	5	2			7			1
Perth Amboy, N. J.	42,646	14	1						3	2

<sup>1</sup> Population Apr. 15, 1910.



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

City Reports for Week Ended Feb. 7, 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.
Petersburg, Va.	25,817	7								
Philadelphia, Pa.	1,735,514	747	87	16	494	6	76	6	89	60
Phillipsburg, N. J.	15,879	5							1	
Pine Bluff, Ark.	17,777	1	1						1	
Piqua, Ohio.	14,275	8			2				1	2
Pittsburgh, Pa.	586,196	19	19		243		25		18	
Pittsfield, Mass.	39,678	28					1			1
Pittston, Pa.	18,975				9		3			
Plainfield, N. J.	24,330	15								
Plattsburg, N. Y.	13,111	5								
Plymouth, N. Y.	14,061	3								
Plymouth, Mass.	19,439						1		1	
Pontiac, Mich.	18,006	42	2		6					
Port Chester, N. Y.	16,727	10	1						1	
Portland, Mo.	64,720	35	4		6		3			4
Portland, Ore.	308,399	100	4		5		5		16	4
Portsmouth, N. H.	11,730				7					
Portsmouth, Va.	40,693	26					1		1	3
Pottstown, Pa.	16,987		1				10			
Pottsville, Pa.	22,717		1						6	
Poughkeepsie, N. Y.	30,786	24			1		2		1	
Providence, R. I.	259,895	100	36	2	22		8			4
Pueblo, Colo.	56,084	15	1							2
Quincy, Ill.	36,832	16	1				7			1
Quincy, Mass.	39,022	14	5				4			
Racine, Wis.	47,465		1		0		9			
Rahway, N. J.	10,361	4								
Raleigh, N. C.	20,274	11								
Reading, Pa.	111,607		6		2					
Redlands, Calif.	14,573	3			1				2	
Reno, Nev.	15,514	4			4					
Richmond, Ind.	25,060	18	2	1	42				2	
Richmond, Va.	158,792	108	1	2	91		5		10	6
Riverside, Calif.	20,496	9	3		1				1	
Rochester, N. Y.	264,714	121	25	4	175	4	9		5	8
Rockford, Ill.	56,739	49	3	1			1			4
Rock Island, Ill.	29,452	14			2			1		
Rocky Mount, N. C.	12,673	6							1	1
Rutland, Vt.	15,038	8			3					
Sacramento, Calif.	68,984	32	2		35	1	1		1	4
St. Joseph, Mo.	86,498	54	2				1			4
St. Louis, Mo.	768,630	665	66		737	6	27	2	39	14
St. Paul, Minn.	252,465	156	9	1	20		6	1	11	8
Salem, Mass.	49,346	25	2				4	1		
Salem, Ore.	21,274	4							1	
Salt Lake City, Utah.	121,623	121	1	1	1		8			1
San Bernardino, Calif.	17,616	6								1
San Diego, Calif.	56,412	38	1		3		4		1	1
Sandusky, Ohio.	20,226	7			2		1		1	
Sanford, Me.	11,217	0			2					
San Francisco, Calif.	471,023	231	31		325	1	15		32	
Santa Barbara, Calif.	15,360	3			2					
Santa Cruz, Calif.	15,150	1			4					
Saratoga Springs, N. Y.	13,839	3	1		4					
Sault Ste. Marie, Mich.	14,130	5								
Savannah, Ga.	69,250	45	2		3		2		2	2
Schenectady, N. Y.	103,774	34			14		2		3	
Seranton, Pa.	149,541		6		31		7			
Shamokin, Pa.	21,274		1		6		2			
Sharon, Pa.	19,156		1		1					
Shenandoah, Pa.	29,753		1		1					
Sioux City, Iowa.	58,568						1			
Sioux Falls, S. Dak.	16,887	12					5	1		
Somerville, Mass.	88,618	46	1		5		5		4	2
South Bend, Ind.	70,967	43	1		3		7			2
Spartanburg, S. C.	21,985	11	2		1					
Springfield, Mass.	108,668	43	4		18		14		3	3
Springfield, Mo.	41,169	20								1
Springfield, Ohio.	52,286	49			5					4
Stamford, Conn.	31,810		1		9					
Staunton, Va.	11,823	13	1							

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

**City Reports for Week Ended Feb. 7, 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.
Steelton, Pa.	15,759								1	
Steubenville, Ohio	28,259	21	1		3					
Stillwater, Minn.	<sup>1</sup> 10,198	5								
Stockton, Calif.	36,209	14	2		6	1				1
Superior, Wis.	47,167	23			30	5	1		1	
Syracuse, N. Y.	158,559	146	4		5	18			4	8
Taunton, Mass.	36,610	14				1				
Terre Haute, Ind.	67,361	17	1		9	1				
Tiffin, Ohio	12,502	6			16					
Toledo, Ohio	202,010	132	7	1	247	2	19	1	4	7
Topeka, Kans.	49,538	22	3				3			1
Traverse City, Mich.	14,090	6				1				
Trenton, N. J.	113,974	58	5		5				6	2
Troy, N. Y.	78,094	33	1		1				2	2
Tucson, Ariz.	17,324	9								
Uniontown, Pa.	21,600				22		1			
Vallejo, Calif.	13,803	8					2			
Virginia, Minn.	15,954		2							
Waco, Tex.	34,015	23			3					1
Wakefield, Mass.	12,947	2	1							
Waltham, Mass.	31,011	8			5					1
Washington, D. C.	369,282	292	18	1	19		11		20	12
Washington, Pa.	22,076				4	1				
Waterbury, Conn.	89,201		7	1	2	1	15		2	
Watertown, Mass.	15,188	4			19		3			
Watertown, N. Y.	30,404	1	2				2			
Wausau, Wis.	19,666	7			48				2	1
West Chester, Pa.	13,403		1							
Westfield, Mass.	18,760	4	1							
West Hoboken	44,386	19	6						3	
West New York, N. J.	19,613	4			4		1			
West Orange, N. J.	13,964	2	1						1	
Wheeling, W. Va.	43,657	22			32				2	
Wichita, Kans.	73,597	52	1							2
Wilkes-Barre, Pa.	78,334		5		1		11			
Wilkinsburg, Pa.	23,899				56				1	
Williamsport, Pa.	34,123				1		1			
Wilmington, Del.	95,369	36	4		8		6	1		1
Wilmington, N. C.	30,400	13	1				1			2
Winchester, Mass.	10,812	2			4		2			1
Winona, Minn.	<sup>1</sup> 18,583	10			18					
Winston-Salem, N. C.	33,136	21					2		2	1
Winthrop, Mass.	13,105	8	1		5		1			
Woburn, Mass.	16,076	18						1		1
Worcester, Mass.	166,106	72	3		3		13	1	6	6
Yonkers, N. Y.	103,066	46	1		6		1			
York, Pa.	52,770		2		51		27			
Zanesville, Ohio	31,320	12			1					

<sup>1</sup> Population Apr. 15, 1910.

## FOREIGN AND INSULAR.

### INFLUENZA ON VESSELS.

#### Steamship "Carrillo"—Kingston, Jamaica.

The steamship *Carrillo* from New York arrived February 2, 1920, at Kingston, Jamaica, with a history of 15 cases of influenza of mild form developing en route.

#### Steamship "Melita"—Plymouth, England.

According to information dated January 24, 1920, the troopship *Melita* arrived at Plymouth, England, from Bombay, with a history of about 200 cases of influenza occurring on board during the voyage.

#### Steamship "Roger de Luria"—Santa Cruz de Teneriffe.

Influenza was reported January 17, 1920, on the steamship *Roger de Luria*, at Santa Cruz de Teneriffe, Canary Islands, with 70 cases occurring among passengers and crew. The vessel received a bill of health January 12, 1920, but returned to Santa Cruz. The type of the disease was stated to be for the most part mild.

The *Roger de Luria* left Barcelona, Spain, December 16, 1919.

### AZORES.

#### Quarantine Against Influenza—Ponta Delgada.

According to information dated February 7, 1920, passengers from the United States arriving at Ponta Delgada, Azores, will not be permitted to land in the event of influenza having developed on the vessel en route. Vessels arriving from any port in the United States at which influenza is reported present are made subject to three days' quarantine without regard to the occurrence or nonoccurrence of influenza on board during the voyage.

### BULGARIA.

#### Typhus Fever—Varna.

Under date of February 18, 1920, 110 cases of typhus fever were reported at Varna, Bulgaria.

### CANARY ISLANDS.

#### Further Relative to Influenza—Las Palmas.<sup>1</sup>

A severe epidemic of influenza was reported January 17, 1920, at Las Palmas, Canary Islands, with from 10 to 20 fatalities occurring daily. (Population, about 65,000.)

<sup>1</sup> Public Health Reports, Feb. 6, 1920, p. 312.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana, as follows:

Disease.	Jan. 21-31, 1920.		Remain- ing under treat- ment, Jan. 31, 1920.
	New cases.	Deaths.	
Broncho-pneumonia.....	43	42	.....
Chicken pox.....	11	.....	11
Diphtheria.....	2	1	3
Influenza.....	212	23	133
Leprosy.....	.....	.....	19
Malaria.....	14	.....	159
Measles.....	4	.....	12
Paratyphoid fever.....	.....	.....	2
Pleuropneumonia.....	1	1	.....
Pneumonia.....	7	5	.....
Scarlet fever.....	2	.....	2
Smallpox.....	5	.....	8
Typhoid fever.....	4	1	28

<sup>1</sup> From the interior, 18.

<sup>2</sup> From the interior, 13.

FEDERATED MALAY STATES.

Influenza—1918.

The first wave of influenza in 1918 in the Federated Malay States was observed in June and July. The type of the disease was stated to be mild. About the middle of September influenza became epidemic, reaching its maximum in October and terminating about the middle of November. A total of 5,643 influenza deaths was reported.

The total number of reported deaths during the year 1918 was 67,639, giving a death rate of 52.85, the population being estimated at 1,279,859. The highest death rate reported for the period 1911-1917 was for 1911 (viz, 39.11), and the lowest was for 1915 (viz, 28.9).

INFLUENZA.

The following information was taken from reports received during the week ended February 27, 1920:

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Porto Alegre.....	Nov. 1-30.....	.....	5	
Canada:				
Nova Scotia—				
Halifax.....	Feb. 1-7.....	2	.....	
Yarmouth.....	Feb. 11.....	42	.....	
Ontario—				
Fort William and Port Arthur.....	Feb. 1-7.....	2	.....	
Hamilton.....	Feb. 8-14.....	.....	.....	Present.
Sarnia.....	.....do.....	222	3	
Saskatchewan—				
Moosejaw.....	Jan. 25-31.....	1	.....	
Regina.....	Feb. 1-7.....	9	.....	Large number of respiratory disease cases reported.

## INFLUENZA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Cuba:				
Cienfuegos.....	Feb. 1-7.....	85	3	
France:				
Marseille.....	Dec. 1-31.....		116	Jan. 26, 1920: Present.
Paris.....	Jan. 1-10.....		60	
Guatemala:				
Livingston.....	Feb. 5-11.....			Present in mild form.
Japan:				
Nagasaki.....	Jan. 12-18.....			Present.
Yokohama.....	Jan. 19-25.....			Epidemic.
Mexico:				
Piedras Negras.....	Feb. 8-14.....	100		Estimated.
Spain:				
Valencia.....	Jan. 18-24.....	7	1	
Sweden:				
Goteborg.....	Dec. 28-Jan. 3.....	27		
Malmo.....	Jan. 4-10.....	11		
Stockholm.....	Dec. 28-Jan. 3.....	2		
Union of South Africa:				
Durban.....	Nov. 1-30.....		2	

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.**  
**Reports Received During Week Ended February 27, 1920.<sup>1</sup>**

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
West Java.....				Dec. 19-25, 1919: Cases, 3.
Batavia.....	Dec. 19-25.....	3		
Philippine Islands:				
Manila.....	Dec. 21-27.....	1		
Provinces.....				Dec. 21-27, 1919: Cases, 43; deaths, 25.
Albay.....	Dec. 21-27.....		1	
Antique.....	do.....	21	11	
Batangas.....	do.....	1		
Occidental Negros.....	do.....	2	3	
Sorsogon.....	do.....	13	8	
Tayabas.....	do.....	6	2	
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	
Russia:				
Novorossisk.....	Nov. 8-11.....	3		
Odessa.....	Oct. 25-Nov. 7.....	93		
Siam:				
Bangkok.....	Dec. 7-20.....	115	37	

## PLAGUE.

Brazil:				
Porto Alegre.....	Nov. 1-30.....		3	
Egypt:				
Province—				Jan. 1-15, 1920: Cases, 8; deaths, 5.
Assiout.....	Jan. 13.....	1	1	
Indo-China:				
Saigon.....	Nov. 24-Dec. 7.....	3	2	
Java:				
East Java—				
Surabaya.....	Dec. 10-16.....		239	Residency.
Peru:				
Trujillo.....	Dec. 29-Jan. 11.....	6	2	And in vicinity.
Siam:				
Bangkok.....	Dec. 14-20.....	4	2	
Straits Settlements:				
Singapore.....	do.....	1		

<sup>1</sup> 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 February 27, 1920—Continued.**

**SMALLPOX.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Canada:</b>				
British Columbia - Vancouver	Jan. 11-17	4		
Nova Scotia Sydney	Feb. 1-7	5		
Ontario - Fort William and Port Arthur	do.	7		
Hamilton	Feb. 8-14	4		
Ottawa	Feb. 1-7	2		
Peterborough	Jan. 25-31	6		
Quebec - Montreal	Feb. 1-7	3		
<b>China:</b>				
Amoy	Dec. 16-22		1	
Do.	Dec. 30-Jan. 5		1	
Canton	Dec. 28-Jan. 10			Prevalent.
Changsha	Jan. 4-10	5		
Chungking	Dec. 25-Jan. 3			Present.
Foochow	Dec. 14-27			Do.
Do.	Dec. 28-Jan. 10			Do.
Nanking	Jan. 4-17			Do.
<b>Colombia:</b>				
Barranquilla	Jan. 18-24			Stated to be epidemic.
<b>France:</b>				
Paris	Jan. 1-10	1	2	
<b>Germany:</b>				
Prussia	Oct. 19-Nov. 29	1,110	332	Nov. 23-29, 1919: Cases, 52; deaths, 12.
<b>Greece:</b>				
Saloniki	Dec. 22-28	9	10	
<b>Italy:</b>				
Genoa	Dec. 1-31	32	4	
Leghorn	Jan. 4-11	1		
Messina	Dec. 29-Jan. 4	3	2	
San Fratello	do.	6	1	
<b>Japan:</b>				
Taiwan Island	Dec. 14-31	28	5	
Do.	Jan. 1-10	9	7	
<b>Java:</b>				
East Java Surabaya	Dec. 10-16	2		Residency.
West Java				Dec. 19-25, 1919: Cases, 32; deaths, 4.
<b>Mexico:</b>				
Ciudad Juarez	Feb. 1-7		1	
<b>Newfoundland:</b>				
St. Johns	Dec. 31-Jan. 6	2		At outports, 7 cases. Present at other localities. Nov. 25-Dec. 5, 1 case each at Princeton and St. Anthony. Present also at 2 other localities.
<b>Portuguese East Africa:</b>				
Inhambane	Dec. 21-27	6		Present in 5 districts.
Mozambique	do.	1		
Quelimane	do.	2		
<b>Spain:</b>				
Valencia	Jan. 18-24	14	3	
<b>Tunis:</b>				
Tunis	Jan. 19-25	1	1	

**TYPHUS FEVER.**

Austria	Oct. 12-Nov. 22	10		
<b>Bulgaria:</b>				
Varna	Feb. 18	110		
<b>Esthonia:</b>				
Niva	Feb. 16	2,500		Feb. 16, 1920: Cases, 7,500 to 8,000. Estimated mortality, 40 per cent.
Reval	do.	2,500		
Germany	Oct. 26-Dec. 6	3		In repatriated soldiers.
<b>Greece:</b>				
Cavalla	Dec. 22-28	3		
Drama	do.	5		
Thassos Island	do.	1		
Zihna	do.	1		

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

Reports Received During Week Ended February 27, 1920—Continued.

### TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Italy:				
Venice.....	Dec. 8-21.....	2		
Japan:				
Nagasaki.....	Jan. 12-18.....	1		
Mexico:				
San Luis Potosi.....	Feb. 1-7.....			Present.

### YELLOW FEVER.

Mexico:				
Merida.....	Dec. 21-27.....	1		Total, June-Dec. 27, 1919: Cases, 47; deaths, 21.
Do.....	Dec. 28-Jan. 3.....	1		

Reports Received from Dec. 27, 1919, to Feb. 20, 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—				
Ketki.....	Aug. 15-Nov. 16...	224	135	
Kogen.....	do.....	64	38	
Kokal.....	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 Paseroean.
West Java.....				Nov. 5-Dec. 18, 1919: Cases, 14.
Batavia.....	Nov. 5-Dec. 18.....	14		
Philippine Islands:				
Manila.....	Nov. 2-Dec. 20.....	19	10	Nov. 2-Dec. 20, 1919: Cases, 1,574; deaths, 1,126.
Provinces—				
Albay.....	Nov. 2-Dec. 20.....	339	239	
Ambos Camarines.....	do.....	66	34	
Antique.....	do.....	139	102	
Batangas.....	Nov. 2-Dec. 13.....	38	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	

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

**Reports Received from Dec. 27, 1919, to Feb. 20, 1920—Continued.**

**CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Philippine Islands—Contd.</b>				
<b>Provinces—Continued.</b>				
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. 20.....	98	50	
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. 20.....	54	33	
Union.....	Nov. 9-15.....	5	5	
<b>Poland:</b>				
Garwolin.....				Present in November, 1919.
Kowal.....				Do.
Stryi.....				Do.
<b>Siam:</b>				
Bangkok.....	Oct. 5-Dec. 15.....		108	
<b>Straits Settlements:</b>				
Singapore.....	Oct. 5-Nov. 28.....	14	13	
<b>Sumatra:</b>				
Deli.....	Oct. 1-31.....	1	1	

**PLAGUE.**

<b>British East Africa:</b>				
Kisumu.....	Sept. 28-Nov. 1.....	6	6	Dec. 14-20, 1919: Present in vicinity.
<b>Brazil:</b>				
Bahia.....	Nov. 9-15.....	1	1	
<b>Ceylon:</b>				
Colombo.....	Oct. 26-Nov. 29.....	18	19	
<b>Chile:</b>				
Antofagasta.....	Dec. 8-14.....	1		
<b>China:</b>				
Hongkong.....	Dec. 7-13.....	1		
<b>Ecuador:</b>				
Guayaquil.....	Nov. 1-31.....	2		
<b>Egypt:</b>				
Cities—				Jan. 1-Dec. 25, 1919: Cases, 867; deaths, 469.
Alexandria.....	Dec. 3.....	1	1	From vessel Raehid Pacha.
Province—				
Assiout.....	Nov. 15-21.....	30	17	
<b>Greece:</b>				
Saloniki.....	Oct. 6-Dec. 21.....	19	7	
<b>India:</b>				
Bombay.....	Oct. 19-Nov. 29.....	5	5	Oct. 19-Dec. 20, 1919: Cases, 28,558; deaths, 21,383.
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.
<b>Indo-China:</b>				
Saigon.....	Oct. 27-Nov. 23.....	8	7	
<b>Java:</b>				
East Java.....				Sept. 28-Dec. 9, 1919: Cases, 1,255; deaths, 1,254. Surabaya Residency.
<b>Peru:</b>				
Salaverry (Trujillo).....	Nov. 23-Dec. 21.....	9	1	Present in surrounding country.
<b>Senegal:</b>				
Dakar.....	Nov. 1-30.....		146	Including Dakar and vicinity.
<b>Straits Settlements:</b>				
Singapore.....	Oct. 26-Dec. 13.....	5	4	
<b>Syria:</b>				
Beirut.....	Dec. 22.....	29		
<b>Turkey:</b>				
Constantinople.....	Nov. 14-Dec. 20.....	11		Present Dec. 11, 1919. Nov. 14-20, 1919: Present in vicinity.
<b>On vessel:</b>				
S. S. Kaiser-i-Hind.....	Nov. 28.....	3		At Port Said, Egypt. From Bombay, Nov. 15, for London.



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

Reports Received from Dec. 27, 1919, to Feb. 20, 1920—Continued.

## SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Algeria:</b>				
Departments—				
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		
<b>Arabia:</b>				
Aden.....	Dec. 24-30.....	1	1	
<b>Bolivia:</b>				
La Paz.....	June 29-Dec. 27.....		216	Dec. 29, 1918-June 28, 1919: Cases, 86; deaths, 44. Dec. 14-20, 1919: Cases, 7; deaths, 6.
Do.....	Dec. 28-Jan. 3.....	6	4	
<b>Brazil:</b>				
Bahia.....	Oct. 26-Nov. 22.....	1,704	1,022	
Pernambuco.....	Nov. 10-16.....	29	4	
Rio de Janeiro.....	Sept. 28-Nov. 25.....	372	105	
<b>Canada:</b>				
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-Jan. 31.....	4		
Counties—				
Cumberland.....	Dec. 14-20.....			Present.
Inverness.....	do.....			Do.
Pictou.....	do.....			Do.
Ontario				
Fort William and Port Arthur.....	Jan. 25-31.....	4		
Gloucester County.....	Dec. 14-20.....	3		
Hamilton.....	Jan. 4-Feb. 7.....	17		
Do.....	Dec. 21-27.....	1		
Kingston.....	Dec. 28-Jan. 31.....	4		
Do.....	Jan. 11-17.....	3		
North Bay.....	Dec. 14-20.....	1		
Ottawa.....	Dec. 28-Jan. 17.....	2		
Do.....	Dec. 21-27.....	3		
Peterborough.....	Dec. 28-Jan. 24.....	21		
Do.....	Jan. 4-10.....	1		
Prescott.....	Dec. 7-27.....	1		
Sault Ste. Marie.....	Dec. 28-Jan. 3.....	1		
Do.....	Dec. 7-27.....	727		
Toronto.....	Dec. 28-Jan. 31.....	650	5	
Do.....	Dec. 14-27.....	2		
Windsor.....				
<b>Quebec—</b>				
Bonaventure and Gaspé.....	Jan. 1-31.....	7		
Counties.....	Dec. 7-27.....	3		
Montreal.....	Jan. 18-24.....	2		
Do.....	Dec. 7-27.....	4		
Quebec.....	Jan. 4-31.....	9		
Do.....				
<b>Saskatchewan—</b>				
Moosejaw.....	Dec. 28-Jan. 31.....	1		
Saskatoon.....	Dec. 14-20.....	1		
<b>Ceylon:</b>				
Colombo.....	Nov. 16-Dec. 13.....	10	9	
<b>China:</b>				
Amoy.....	Nov. 4-Dec. 8.....			Present. Dec. 15: Three deaths.
Canton.....	Nov. 2-Dec. 27.....			Pre-sent.
Chungking.....	do.....			Do.
Foochow.....	Nov. 16-Dec. 6.....			Do.
Nanking.....	Dec. 6-27.....			Do.
Do.....	Dec. 28-Jan. 3.....			Do.
Shanghai.....	Dec. 22-28.....	2		

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

Reports Received from Dec. 27, 1919, to Feb. 20, 1920—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Chosen (Korea):</b>				
Fusan.....	Oct. 1-31.....	2	1	
Seoul.....	do.....	9	1	
<b>Colombia:</b>				
Barranquilla.....	Nov. 16-Dec. 20...	50	2	
Do.....	Jan. 11-17.....		1	
<b>Cuba:</b>				
Habana.....	Jan. 31.....	4		Children living in same house.
<b>Egypt:</b>				
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	
<b>Finland:</b>				
Provinces—				
Nyland.....	July 16-31.....	1		
Tavastehus.....	do.....	1		
Viborg.....	do.....	23		Oct. 15-31, 1919: Cases, 6.
<b>Finland.</b>				
Provinces—				
Nyland.....	Oct. 15-31.....	4		Helsingfors.
Tavastehus.....	do.....	1		Rural district.
Viborg.....	do.....	1		Do.
<b>Finland</b> .....				
Provinces—				
Abo Och Borneborg.....	Nov. 1-15.....	1		Nov. 1-30, 1919: Cases, 45.
Nyland.....	Nov. 16-Dec. 15...	24		
St. Michael.....	do.....	7		
Tavastehus.....	do.....	5		
Vasa.....	do.....	11		
Viborg.....	Nov. 16-30.....	6		
<b>Germany</b> .....				
Oct. 5-15, 1919: Cases, 32. In addition to previously reported cases; Sept. 23-Oct. 4, 1919: Cases, 26.				
<b>Greece:</b>				
Saloniki.....	Nov. 10-Dec. 21....	17	16	
<b>India:</b>				
Bombay.....				
Calcutta.....	Oct. 12-Dec. 20....	38	9	
Do.....	Oct. 26-Dec. 27....	188	260	
Karachi.....	Nov. 23-Dec. 27....	6	2	
Madras.....	Nov. 2-Dec. 27....	31	13	
Do.....	Dec. 23-Jan. 3.....	3	1	
Rangoon.....	Oct. 19-Dec. 14....	41	15	
<b>Indo-China:</b>				
Saigon.....	Oct. 27-Nov. 23....	2		
<b>Italy:</b>				
Genoa.....				
Messina.....	Nov. 10-Dec. 28....	55	8	Province: Nov. 17-Dec. 28, 1919: Cases, 15; deaths, 3.
Milan.....	Nov. 1-30.....	6		
Naples.....	Dec. 23-Jan. 10....	6	10	Province of Messina. Dec. 14-28, 1919: Cases, 68.
San Fratello.....	Dec. 1-28.....	49	5	
Trieste.....	Jan. 3-10.....	2		
Turin.....	Dec. 23-Jan. 4.....	1		
<b>Japan:</b>				
Kobe.....	Dec. 15-21.....	1		
Taiwan.....	Nov. 1-20.....	10	2	Entire island.
<b>Java:</b>				
East Java.....				
Residency—				Sept. 28-Dec. 18, 1919: Cases, 34.
Surabaya.....	Oct. 25-Dec. 18....	24		
West Java.....				
Batavia.....	Oct. 17-Dec. 12....	49	22	Oct. 17-Dec. 18, 1919: Cases, 627; deaths, 147.
<b>Mexico:</b>				
Acapulco.....	Nov. 9-15.....	2		
Chihuahua.....	Dec. 21-27.....	2		
Do.....	Jan. 11-17.....		1	
Ciudad Juarez.....	Jan. 11-17.....		1	
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		
<b>Newfoundland:</b>				
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.

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

Reports Received from Dec. 27, 1919, to Feb. 20, 1920—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
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	
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.....	do.....	1		
Mozambique.....	do.....	1		
Quelimane.....	do.....	2		
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. 17.....	24		
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		
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. Sarcoix.....	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:				
Vienna.....	Sept. 7-14.....	5		Sept. 7-14, 1919: Cases; 7.
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		
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	

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

**Reports Received from Dec. 27, 1919, to Feb. 20, 1920—Continued.**

**TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Antung.....	Nov. 3-Dec. 14....	2		
Czecho Slovakia:				
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	
Finland:				
Province—				
Viborg.....	July 16-31.....	2		
Germany.....				Oct. 5-25, 1919: Cases, 10—civil population, 3; military, 7.
Great Britain:				
Belfast.....	Dec. 28-Jan. 3.... 1		1	
Glasgow.....	Nov. 30-Dec. 6.... 2			
Greece:				
Cavalla.....	Nov. 17-23..... 1			
Drama.....	Nov. 24-30..... 1			
Saloniki.....	Oct. 6-Dec. 21....		43	
Hungary.....				Aug. 25-Sept. 14, 1919: Cases, 6.
Italy:				
Trieste.....	Dec. 14-27..... 3			
Do.....	Dec. 28-Jan. 3.... 1			
Venice.....	Nov. 17-23..... 4		1	
Japan:				
Nagasaki.....	Dec. 1-28..... 4		2	
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. 28-Jan. 31... 1			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. 7-20..... 3		2	The cases were sent from Opi- chen, vicinity of Muna. One death in case from Muna. To- tal to Dec. 20: Cases, 46; deaths, 20.