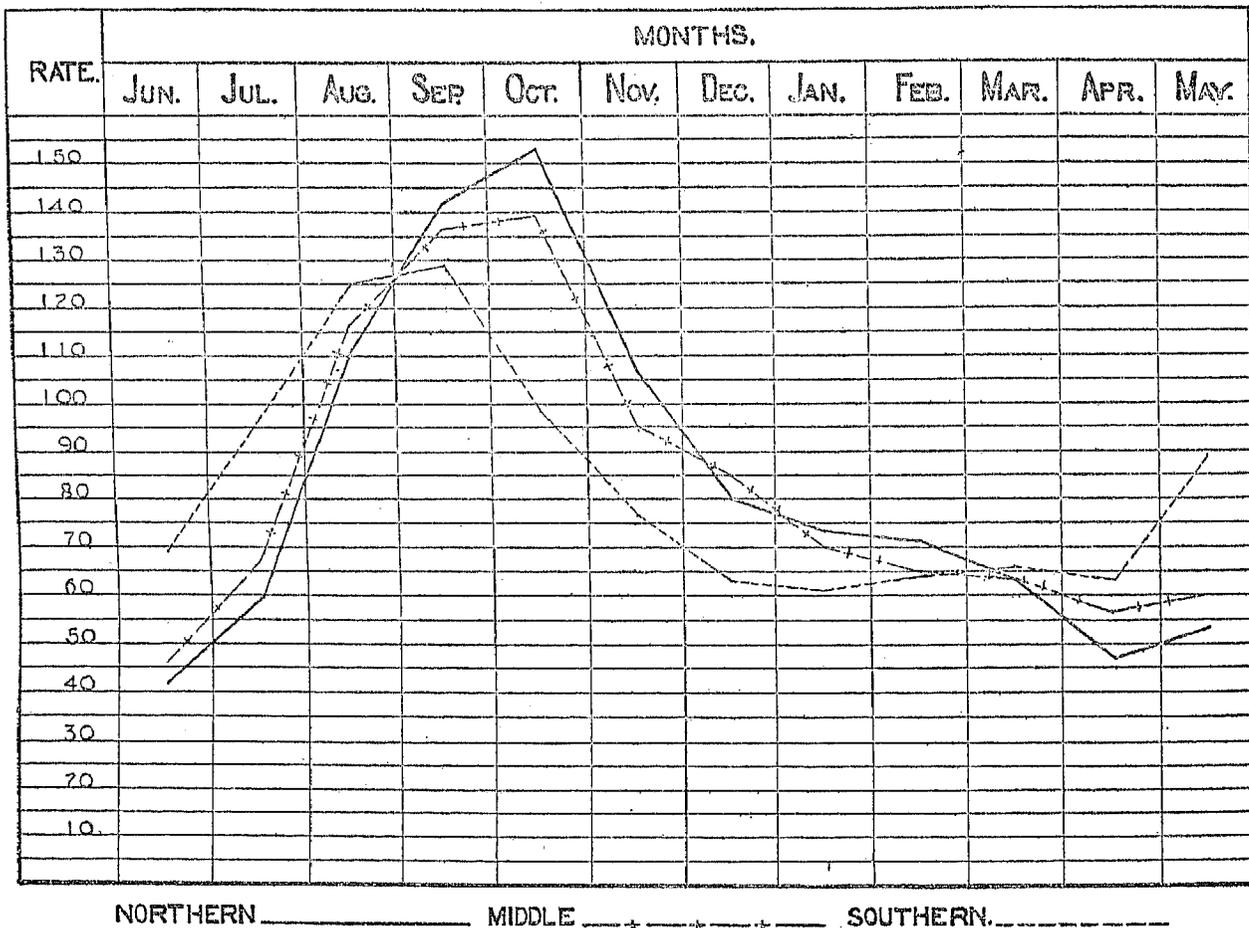


VITAL AND SOCIAL STATISTICS.

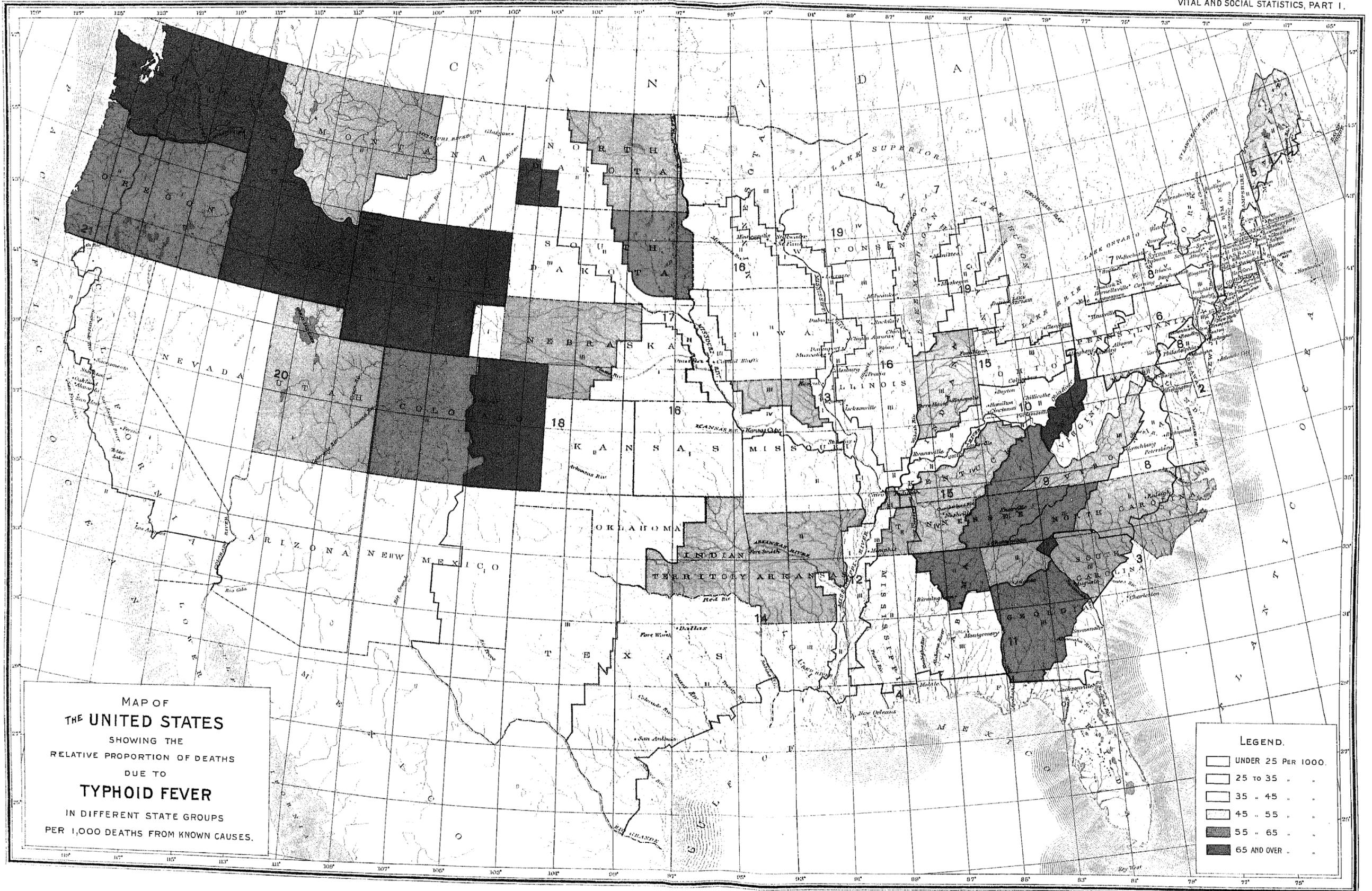
The following table shows, for three divisions of grand groups, namely, Northern, Middle, and Southern, the number of deaths from typhoid fever in each month during the census year, and the proportion in each month per 1,000 deaths from this disease of which the month is known:

MONTHS.	NORTHERN REGION. GRAND GROUPS 1, 5, 7, 13, 17, AND 19.		MIDDLE REGION. GRAND GROUPS 2, 6, 8, 10, 15, 16, 18, 20, AND 21.		SOUTHERN REGION. GRAND GROUPS 3, 4, 9, 11, 12, AND 14.	
	Deaths.	Proportion.	Deaths.	Proportion.	Deaths.	Proportion.
June.....	238	42.00	636	45.93	401	60.24
July.....	333	58.58	927	66.94	679	95.76
August.....	653	111.70	1,611	116.34	889	125.37
September.....	803	141.70	1,001	137.28	910	128.33
October.....	868	153.17	1,925	139.01	680	98.15
November.....	606	106.93	1,314	94.80	516	77.00
December.....	451	79.58	1,173	84.71	418	63.18
January.....	413	72.88	967	69.83	434	61.20
February.....	400	70.58	903	65.21	451	63.00
March.....	359	63.35	877	63.33	469	68.14
April.....	264	46.59	783	56.54	448	63.18
May.....	300	52.94	831	60.01	630	83.84

The relative proportion of deaths in each month in the several divisions, as given in the table above, is shown in the following diagram:



It will be seen from the preceding table and diagram that in the Northern and Middle regions the greatest proportion of deaths from typhoid fever occurred in September and October, in which months from 18 to 20 per cent of all the deaths during the year occurred in the Lake region, the Heavily timbered region of the Northwest, the Prairie region, and the Western plains, while the least proportion of deaths in these regions occurred in the month of April, the average being a little over 5 per cent.



CAUSES OF DEATH.

In the Southern regions there was less variation in the proportion of deaths from this disease in the different months of the year, the greatest proportion occurring in the months of August and September, averaging about 13 per cent of the total number of deaths from this disease, and the least proportion in the month of January, averaging about 6 per cent.

The following table shows, for the registration area and some of its subdivisions, the death rate from typhoid fever per 100,000 males engaged in each specified occupation and class of occupations:

OCCUPATIONS.	Regis- tration area.	REGISTRATION STATES.			Regis- tration cities in other states.
		Total.	Cities.	Rural.	
All occupations .....	44.30	40.33	46.78	31.22	50.29
<b>A.—Professional .....</b>	<b>39.08</b>	<b>42.78</b>	<b>42.21</b>	<b>44.05</b>	<b>34.29</b>
Clergymen .....	32.10	25.60	27.21	24.15	43.35
Lawyers .....	38.03	35.92	23.06	54.28	40.39
Physicians and surgeons .....	28.79	20.53	24.19	14.12	39.34
Teachers .....	33.09	44.25	18.56	67.08	26.38
<b>B.—Clerical and official .....</b>	<b>32.21</b>	<b>33.02</b>	<b>32.48</b>	<b>35.30</b>	<b>31.32</b>
Accountants, bookkeepers, clerks, and copyists .....	41.73	42.24	39.25	57.02	41.18
Collectors, auctioneers, and agents .....	17.93	20.10	22.69	10.52	15.08
<b>C.—Mercantile and trading .....</b>	<b>35.97</b>	<b>36.43</b>	<b>38.98</b>	<b>28.05</b>	<b>35.40</b>
Apothecaries, pharmacists, etc. ....	76.42	82.50	114.78	.....	70.49
Commercial travelers and salesmen .....	32.45	30.72	31.86	25.84	34.31
Merchants and dealers .....	31.98	34.73	36.71	29.16	33.00
Hucksters and peddlers .....	47.14	53.07	55.04	45.02	39.50
<b>D.—Entertainment .....</b>	<b>19.49</b>	<b>20.08</b>	<b>14.71</b>	<b>35.70</b>	<b>18.81</b>
Saloon and restaurant keepers, bartenders, etc. ....	20.64	19.49	11.54	62.71	21.78
<b>E.—Personal service .....</b>	<b>38.71</b>	<b>42.18</b>	<b>45.44</b>	<b>27.72</b>	<b>31.92</b>
Barbers and hairdressers .....	53.57	60.94	70.37	22.23	45.81
<b>F.—Laborers and servants .....</b>	<b>73.45</b>	<b>74.07</b>	<b>77.47</b>	<b>69.15</b>	<b>82.15</b>
Laborers .....	96.80	85.20	90.07	75.87	96.38
Servants .....	26.68	28.64	34.70	7.19	24.07
<b>G.—Manufacturing and mechanical industries .....</b>	<b>43.27</b>	<b>40.07</b>	<b>42.27</b>	<b>34.72</b>	<b>47.89</b>
Bakers and confectioners .....	54.89	63.03	68.97	28.51	45.43
Blacksmiths .....	38.05	31.89	30.03	25.30	47.66
Boot and shoe makers .....	20.67	18.71	19.55	10.84	20.14
Butchers .....	65.23	49.31	61.43	13.10	82.02
Carpenters and joiners .....	51.51	50.82	50.54	41.11	52.39
Compositors, printers, and pressmen .....	28.07	28.28	31.03	.....	27.84
Engineers and firemen (not locomotive) .....	66.37	62.41	54.03	85.19	70.87
Iron and steel workers .....	60.07	28.48	23.72	40.75	87.37
Mechanics .....	48.40	48.81	51.26	42.07	43.07
Marble and stone cutters .....	41.43	39.22	52.29	19.61	45.72
Masons (brick and stone) .....	44.70	37.90	40.43	32.26	54.48
Mill and factory operatives (textiles) .....	53.62	55.55	64.80	40.84	45.73
Painters, glaziers, and varnishers .....	30.20	27.77	27.56	28.35	33.60
Tailors .....	33.81	22.63	24.39	.....	48.05
<b>H.—Agriculture, transportation, and other outdoor occupations .....</b>	<b>33.42</b>	<b>28.59</b>	<b>52.87</b>	<b>21.05</b>	<b>50.22</b>
Draymen, hackmen, teamsters, drivers, etc. ....	47.18	61.54	58.80	27.14	42.24
Farmers, planters, overseers, and farm laborers .....	24.05	21.07	46.56	19.88	118.11
Gardeners, florists, nurserymen, and vine growers .....	45.00	32.16	35.02	29.01	69.55
Livery stable keepers and hostlers .....	40.50	46.33	56.07	26.00	31.85
Lumbermen and raftsmen .....	87.60	121.91	.....	156.49	50.05
Miners .....	35.46	52.32	303.70	19.14	23.91
Sailors .....	131.44	131.78	150.00	102.10	131.03
Steam railroad employes .....	28.27	20.08	26.00	0.33	36.41

It will be seen from this table that the average death rate from typhoid fever per 100,000 males in all occupations in the registration area was 44.30, being highest in the registration cities in the nonregistration states (50.29). In the registration states the average rate from this cause was 40.33, being 46.78 in the cities and 31.22 in the rural districts.

## VITAL AND SOCIAL STATISTICS.

Taking the registration states, for which the rates are most accurate, and considering only those occupations in which the number of deaths from typhoid fever was great enough to afford reliable results, it appears that the highest death rates of males from this cause occurred among laborers (85.20); mill and factory operatives (55.55); carpenters and joiners (50.82); draymen, hackmen, teamsters, etc. (51.54); and machinists (48.81). The death rate of accountants, bookkeepers, clerks, and copyists (42.24) was slightly above the average rate from this cause, and those of merchants and dealers (34.73) and farmers and farm laborers (21.07) were considerably below the average rate, that of farmers and farm laborers being but little more than one-half the average.

The following table shows, for the registration area and some of its subdivisions, the death rate from typhoid fever per 100,000 females engaged in each specified occupation:

OCCUPATIONS.	Regis- tration area.	REGISTRATION STATES.			Regis- tration cities in other states.
		Total.	Cities.	Rural.	
All occupations.....	31.42	35.60	37.59	31.08	25.20
Teachers.....	28.33	24.20	27.37	20.97	36.17
Laundresses.....	9.18	11.17	12.98	.....	8.04
Nurses.....	64.28	42.23	41.04	45.54	96.19
Servants.....	42.12	48.80	54.71	37.00	32.62
Mill and factory operatives.....	36.48	41.56	44.96	33.89	16.40
Milliners, dressmakers, etc.....	18.03	19.38	17.91	24.22	17.70

It will be seen from this table that the average death rate from typhoid fever of females engaged in all selected occupations in the registration area was 31.42 per 100,000, which was less than the corresponding rate for the males (44.30). The average death rate of females from this cause was highest in the cities of the registration states (37.59), and lowest in the registration cities in the nonregistration states (25.26).

In the registration states the average death rate of females in the selected occupations from typhoid fever was 35.69 per 100,000, being highest among servants (48.80), which was also higher than the rate for male servants in this area (28.64). The death rate from this cause among mill and factory operatives (41.56) was above the average rate for females, and was less than the corresponding rate for males (55.55). The death rate of milliners, dressmakers, seamstresses, etc., from this cause (19.38) was low.

CAUSES OF DEATH.

The following table shows, for the United States, the registration area and some of its subdivisions, and for the remainder of the United States, the proportion of deaths due to typhoid fever per 1,000 deaths from all causes, among males engaged in each specified occupation and class of occupations:

OCCUPATIONS.	United States.	Regis- tration area.	REGISTRATION STATES.			Regis- tration cities in other states.	Remain- der of the United States.
			Total.	Cities.	Rural.		
All occupations.....	47.75	36.08	29.15	29.81	27.84	50.61	54.87
A.—Professional.....	39.46	28.04	27.25	26.92	29.47	32.16	40.27
Clergymen.....	28.53	18.10	14.04	13.70	14.39	25.48	33.33
Lawyers.....	36.44	25.41	20.29	15.15	37.04	33.08	45.32
Physicians and surgeons.....	25.95	15.15	9.52	11.54	6.25	25.00	31.42
Teachers.....	77.89	41.07	42.74	14.49	83.33	39.22	65.63
B.—Clerical and official.....	52.32	41.86	33.68	31.07	44.62	57.85	75.04
Accountants, bookkeepers, clerks, and copyists.....	62.33	48.34	37.88	34.21	60.61	69.37	91.19
Collectors, auctioneers, and agents.....	27.07	21.41	18.79	19.85	13.16	25.40	37.43
C.—Mercantile and trading.....	40.30	34.14	29.73	30.28	27.40	41.96	63.69
Apothecaries, pharmacists, etc.....	61.06	61.48	59.06	65.04	.....	80.40	61.82
Commercial travelers and salesmen.....	79.97	63.35	52.97	52.37	56.34	78.08	103.94
Merchants and dealers.....	39.02	26.28	23.60	23.66	23.81	30.91	57.58
Hucksters and peddlers.....	41.12	41.04	37.62	35.46	54.05	48.01	41.38
D.—Entertainment.....	23.62	14.00	13.82	0.27	33.56	16.48	34.55
Saloon and restaurant keepers, bartenders, etc.....	26.58	16.04	13.54	7.52	67.80	19.19	42.37
E.—Personal service.....	32.91	31.00	27.41	27.51	26.61	37.48	36.06
Barbers and hairdressers.....	41.62	47.24	48.01	51.79	27.03	45.45	33.03
F.—Laborers and servants.....	51.45	43.00	33.06	30.80	39.40	58.73	61.32
Laborers.....	52.50	43.95	33.73	31.24	40.28	59.01	62.29
Servants.....	35.09	28.55	22.17	23.10	13.16	40.09	44.81
G.—Manufacturing and mechanical industries.....	42.30	38.01	30.92	30.10	33.52	52.62	49.36
Bakers and confectioners.....	55.21	46.95	43.00	45.09	30.30	52.40	85.23
Blacksmiths.....	37.79	30.22	29.46	21.79	18.25	52.15	43.21
Boot and shoe makers.....	16.47	13.62	12.25	12.81	11.01	17.54	22.51
Butchers.....	49.75	49.80	33.04	30.94	33.33	74.43	49.06
Carpenters and joiners.....	51.93	43.72	36.88	40.37	30.09	56.89	58.03
Compositors, printers, and pressmen.....	40.98	31.34	25.52	28.13	.....	41.84	62.73
Engineers and firemen (not locomotive).....	55.44	52.39	46.00	35.97	69.39	69.85	60.43
Iron and steel workers.....	77.49	71.54	29.97	22.47	51.95	118.21	86.05
Machinists.....	59.86	52.63	42.91	40.66	51.43	75.42	68.88
Marble and stone cutters.....	37.90	34.04	26.33	28.99	25.97	51.23	46.30
Masons (brick and stone).....	37.53	32.48	24.33	24.18	24.75	48.84	43.85
Mill and factory operatives (textiles).....	70.09	65.78	68.52	68.48	68.69	54.95	93.83
Painters, glaziers, and varnishers.....	30.16	27.78	21.30	19.68	27.27	42.89	35.60
Tailors.....	29.10	23.83	13.70	15.29	.....	42.46	32.75
H.—Agriculture, transportation, and other outdoor occupations.....	50.19	28.04	23.57	30.40	20.00	44.83	54.64
Draymen, hackmen, teamsters, drivers, etc.....	52.96	46.97	42.52	41.84	47.30	54.90	66.67
Farmers, planters, overseers, and farm laborers.....	59.09	19.60	17.66	13.20	18.35	40.32	54.06
Gardeners, florists, nurserymen, and vine growers.....	37.96	32.19	21.81	17.73	31.58	55.17	45.69
Livery stable keepers and hostlers.....	56.57	40.10	38.60	39.65	34.48	43.86	82.35
Lumbermen and raftsmen.....	62.10	75.05	63.02	.....	173.93	55.56	58.82
Miners.....	60.46	29.16	40.00	36.96	19.23	11.56	63.86
Sailors.....	45.31	39.07	33.19	39.02	24.73	49.74	61.27
Steam railroad employes.....	48.83	34.21	22.34	25.65	14.08	48.29	57.86

The accuracy of the proportion of death rates due to any specified cause in comparison with other causes in a given area is not so dependent upon completeness in the return of deaths as the death rate per 100,000 of population, and the relative frequency of fatal cases of typhoid fever among males in the occupations and classes of occupations stated above for the United States as a whole is probably fairly indicated.

The failure to return the occupation of decedents in so many cases in the nonregistration area causes all the proportions to be higher than they should be, as will be seen by comparison of the proportions of deaths due to typhoid fever per 1,000 deaths from all causes in the different areas, as follows: United States, 47.75; nonregistration area, 54.87; registration area, 36.08; registration states, 29.15; cities in registration states, 29.81; rural part of registration states, 27.84; and registration cities in other states, 50.61. The proportion of deaths in the total registration area (36.08) is raised by the deficiency in the return of occupations in the registration cities in nonregistration states (50.61).

## VITAL AND SOCIAL STATISTICS.

In the registration states the principal occupations in which the proportions of deaths of males due to typhoid fever exceeded the average (29.15) were mill and factory operatives (textile, 68.52), machinists (42.91), draymen, hackmen, teamsters, etc. (42.52), carpenters and joiners (36.88), and accountants, bookkeepers, clerks, and copyists (37.88). The proportion was below the average among farmers and farm laborers (17.66), and merchants and dealers (23.69).

The following table shows for the United States, for the registration area and some of its subdivisions, and for the remainder of the United States, the proportion of deaths due to typhoid fever per 1,000 deaths from all causes among females engaged in each specified occupation:

OCCUPATIONS.	United States.	Regis- tration area.	REGISTRATION STATES.			Regis- tration cities in other states.	Remain- der of the United States.
			Total.	Cities.	Rural.		
All occupations.....	51.48	37.35	33.79	37.54	26.36	46.91	58.07
Teachers.....	72.89	65.62	55.78	56.34	55.05	84.62	75.85
Laundresses.....	32.18	16.10	10.67	17.94	.....	15.67	44.24
Nurses.....	44.57	55.73	37.84	39.68	33.00	79.71	35.44
Servants.....	48.50	29.83	26.89	31.86	18.28	38.72	57.36
Mill and factory operatives.....	87.89	78.11	78.54	79.65	75.38	74.07	134.08
Milliners, dressmakers, etc.....	69.43	62.48	43.91	42.47	47.87	71.21	83.27

It will be seen from this table that the average proportion of deaths due to typhoid fever per 1,000 deaths from all causes among females in the selected occupations in the United States was 51.48. The proportion of deaths due to this cause was greater in the nonregistration area (58.07) than in the registration cities of the nonregistration states (46.91) or in the cities in the registration states (37.54).

In the nonregistration area the greatest proportion of deaths of females due to typhoid fever occurred among mill and factory operatives (134.08), and milliners, dressmakers, seamstresses, etc. (83.27).

## DIARRHEAL DISEASES.

Under the term "Diarrheal diseases" are included all cases of death reported as due to diarrhea, dysentery, cholera infantum, cholera morbus, and enteritis.

The total number of deaths reported as due to these diseases in the United States during the census year was 74,711, of which 39,573 were of males and 35,138 of females. In the registration area the number of deaths reported as due to these diseases was, males, 18,731; females, 17,385; total, 36,116; giving a death rate of 183.71 per 100,000 of population.

In 1890 the death rate in England and Wales from these causes was 62 per 100,000 of population.

During the 10 years 1880 to 1889 the death rates from diarrheal diseases per 100,000 population were, in England and Wales, 76.1; in Ireland, 32.9; in Scotland, 49.3; in Sweden, 43.3; in Prussia, 103.8; in Massachusetts, 142.3; in Connecticut, 135; in Rhode Island, 154.6; and in New Jersey, 212.8.

The following table shows, for the registration area and some of its subdivisions, the death rates from diarrheal diseases during the census year, per 100,000 of population, with distinction of color, sex, general nativity, and parental nativity:

AREAS.	Aggre- gate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
Registration area.....	183.71	180.13	187.15	173.14	219.39	145.94	313.63	72.10	253.84	269.65	238.52
Cities.....	206.43	202.00	211.05	194.24	258.76	181.80	350.73	73.33	268.34	286.90	250.53
States.....	178.73	177.64	184.56	170.88	213.53	144.41	327.95	73.62	225.28	234.39	216.66
Cities.....	222.82	221.28	231.85	211.20	290.51	194.00	385.62	76.80	279.53	299.84	261.36
Rural.....	111.40	111.00	115.23	107.01	120.23	105.83	169.82	64.87	99.82	96.38	103.52
Cities in nonregistration states.....	191.31	184.19	191.28	176.93	220.30	153.53	270.34	69.39	265.22	283.46	247.33
Cities of 100,000 population and upward.....	215.25	213.73	.....	.....	283.85	227.40	365.74	71.43	245.18	.....	.....
Metropolitan district, 6 years.....	278.33	279.11	292.45	268.07	394.57	326.78	438.67	85.44	234.20	255.34	213.87

It will be seen from the preceding table that the death rate from diarrheal diseases was much higher among the colored (253.84) than among the whites (180.13); that it was higher among males (white, 187.15; colored, 269.65) than among females (white, 173.14; colored, 238.52), and that in the registration states it was about twice as high in the cities (222.82) as it was in the rural districts (111.40). It was highest of all in the metropolitan district for the 6-year period (273.33). Among the whites it was much higher among the native born (219.39) than among the foreign born (72.10), owing mainly to the much greater proportion of young children in the former group. Among the native born whites it was more than twice as high among those having one or both parents foreign born (313.63) as it was among those both of whose parents were native born (145.94).

The following table shows, for each of the registration states, and for their sum, the death rates from diarrheal diseases during the census year, per 100,000 of population, with distinction of sex and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total .....	178.73	222.82	111.40	185.08	233.59	114.90	171.94	212.57	107.84
Connecticut .....	153.83	181.74	133.97	173.73	207.51	150.05	134.33	159.01	117.99
Delaware .....	108.55	109.30	168.13	105.94	162.26	163.01	171.25	176.37	168.25
District of Columbia .....	256.95	256.05	.....	268.29	268.29	.....	246.67	246.67	.....
Massachusetts .....	166.64	180.73	100.03	169.02	191.78	93.78	163.82	182.00	103.03
New Hampshire .....	150.59	211.76	125.18	160.80	264.76	120.50	140.55	164.44	129.96
New Jersey .....	174.94	216.90	110.15	175.36	225.29	111.23	173.73	208.67	127.10
New York .....	189.18	214.34	100.03	197.25	256.94	104.93	181.23	232.82	94.90
Rhode Island .....	206.65	212.43	198.71	216.04	210.05	214.83	197.77	208.27	182.83
Vermont .....	99.57	160.64	93.05	109.20	162.40	104.63	89.52	176.28	86.89

It will be seen from this table that the death rate from diarrheal diseases during the census year was highest in the District of Columbia (256.95) and in Rhode Island (206.65), and was lowest in Vermont (99.57). In the rural districts it was highest in Rhode Island (198.71) and in Delaware (168.13), and lowest in Vermont (93.05) and in New York (100.03). It was about twice as high in the cities (222.82) as it was in the rural districts (111.40). It was higher among males (185.08) than among females (171.94) for the aggregate, but was higher among females than among males in Delaware, the excess occurring entirely in the city of Wilmington. It was much higher among the colored (225.28) than among the whites (177.64) in the aggregate, but this was largely due to the excessive death rate among the colored from this cause in the District of Columbia (360.65). In the rural districts it was higher among the whites (111.60) than among the colored (99.82).

Of 25,423 deaths from diarrheal diseases of whites in the registration area during the census year 9,235 were children of mothers born in the United States, 3,716 children of mothers born in Ireland, 3,693 children of mothers born in Germany, 1,649 children of mothers born in Canada, 919 children of mothers born in England and Wales, 597 children of mothers born in Scandinavia, 451 children of mothers born in Italy, 214 children of mothers born in Scotland, 151 children of mothers born in Bohemia, 114 children of mothers born in Hungary, and 92 children of mothers born in France.

The following table shows, for the registration area and some of its subdivisions, the death rates from diarrheal diseases among the whites during the census year, per 100,000 of white population, with distinction of birthplaces of mothers:

AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
Registration area .....	133.88	131.59	139.71	104.99	112.22	173.76	245.10	207.97	356.19	370.93	322.02	270.81
Cities .....	172.61	148.30	156.18	115.79	118.16	183.60	289.80	212.81	379.81	371.86	362.65	293.34
States .....	138.43	138.84	148.22	112.12	123.28	192.47	259.73	261.86	373.06	514.37	352.65	269.50
Cities .....	200.47	165.14	170.74	129.33	137.84	213.43	322.58	296.25	407.49	531.69	406.56	294.56
Rural .....	87.11	84.60	77.71	70.29	89.18	101.93	159.66	180.55	195.81	345.54	79.59	129.74
Cities in nonregistration states .....	112.00	101.97	84.11	78.88	86.10	140.86	126.18	153.12	203.94	282.24	115.89	274.29
Cities of 100,000 population and upward .....	221.19	144.53	175.01	130.46	125.45	107.76	242.75	242.17	355.73	389.64	380.65	303.86

It will be seen from the preceding table that the death rate from diarrheal diseases among the whites in the registration area was highest among those whose mothers were born in Bohemia (370.93), in Hungary (356.19), and in Italy (322.02), and was lowest among the children of mothers born in Scotland (104.99), in France (112.22), and in England and Wales (131.59). The death rate from these diseases was comparatively low in the children of mothers born in the United States (133.88) and in Ireland (139.71), and was a little below the average (180.13)

for the children of mothers born in Germany (173.76). The highest death rate of all from these diseases was in the children of mothers born in Bohemia in the cities of the registration states (531.69), and the lowest in the children of mothers born in Scotland in the rural districts of the registration states (70.29).

The following table shows, for the registration area and some of its subdivisions, the death rates from diarrheal diseases during the census year in each of six age groups, per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	Under 1 year.	Under 5 years.	5 to 15 years.	15 to 45 years.	45 to 65 years.	65 years and over.
Registration area.....	5,279.91	1,428.42	20.13	20.88	70.77	294.29
Males.....	5,560.70	1,506.88	19.90	19.71	69.17	269.43
Females.....	4,991.49	1,348.37	20.30	22.03	72.36	316.47
Cities.....	5,798.07	1,585.41	20.71	23.09	81.97	347.15
Males.....	6,101.12	1,669.37	20.06	22.19	81.43	319.17
Females.....	5,487.30	1,499.94	21.37	23.98	82.51	370.01
States.....	5,589.51	1,459.71	19.20	17.26	60.73	274.50
Males.....	5,879.23	1,540.04	19.48	15.64	54.32	242.87
Females.....	5,291.02	1,377.38	18.93	18.82	66.91	303.18
Cities.....	6,866.18	1,816.69	19.84	19.80	74.65	346.35
Males.....	7,210.24	1,912.20	19.35	18.51	66.81	296.59
Females.....	6,514.00	1,719.00	20.34	21.02	82.07	385.43
Rural.....	3,210.26	847.62	18.25	12.81	43.48	221.97
Males.....	3,410.08	908.84	19.67	10.83	39.15	208.44
Females.....	3,003.08	784.64	16.77	14.83	47.74	235.59
Cities in nonregistration states.....	4,803.77	1,385.02	21.47	26.10	89.55	348.07
Males.....	5,132.56	1,460.85	20.07	25.42	95.83	343.01
Females.....	4,587.70	1,308.55	22.27	26.81	83.00	351.62
Cities of 100,000 population and upward.....	6,031.90	1,637.45	18.70	21.18	81.70	351.83
Males.....	6,310.98	1,710.40	18.02	20.51	79.57	311.95
Females.....	5,745.84	1,563.15	19.40	21.84	83.98	384.51
Metropolitan district.....	7,425.08	1,986.13	20.05	21.72	87.88	408.80
Males.....	7,679.24	2,062.05	20.47	22.23	73.44	347.64
Females.....	7,163.77	1,909.58	19.62	21.23	102.27	459.80

It will be seen from this table that the greatest mortality from diarrheal diseases occurred in infants under 1 year of age, or a little over 5 per cent of the living; that in this age group it was higher among males (5,560.70) than among females (4,991.49), and more than twice as high in the cities of the registration states (6,866.18) as in the rural districts of the same states (3,210.26). Substantially the same differences in the death rates existed among children under 5 years of age. In persons from 15 to 45 years of age the death rate from these diseases was a little higher among females (22.03) than among males (19.71), and the same was the case in those 45 years of age and over. The death rate from these diseases in those 65 years of age and over (294.29) was over four times as high as that in those from 45 to 65 years of age.

The combined relations of age and race to the death rates from diarrheal diseases are indicated in the following table showing the number of deaths in each of six age groups, and the death rates per 100,000 population of corresponding ages, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New Jersey, for the census year:

COLOR AND BIRTHPLACES OF MOTHERS.	UNDER 1 YEAR.		UNDER 5 YEARS.		5 TO 15 YEARS.		15 TO 45 YEARS.		45 TO 65 YEARS.		65 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
White.....	7,002	6,686.66	8,645	1,782.64	157	18.19	455	19.00	528	80.86	581	373.34
Colored.....	869	10,292.89	439	2,799.57	4	12.34	32	31.01	13	55.90	22	425.78
Birthplaces of mothers (white):												
United States.....	2,809	5,336.04	3,424	1,386.16	65	15.90	80	10.43	89	39.67	175	253.71
England and Wales.....	194	5,332.60	242	1,417.94	9	25.90	31	26.80	27	71.74	38	410.41
Ireland.....	1,004	7,029.34	1,304	1,975.01	83	21.90	186	29.98	255	149.81	208	644.60
Scotland.....	63	5,497.38	83	1,526.86	2	18.76	4	10.62	6	51.57	11	402.34
Germany.....	1,405	8,398.00	1,726	2,151.48	25	15.53	84	15.31	92	61.67	87	273.28
Canada.....	131	7,953.86	163	2,194.10			7	17.60	3	43.76	3	277.52
Scandinavia.....	149	9,526.85	177	2,660.47								
Hungary.....	65	7,812.50	79	2,430.02								
Bohemia.....	66	14,442.61	72	3,650.68								
Italy.....	258	6,986.62	357	2,374.46	5	29.74	9	17.07	3	36.10		

CAUSES OF DEATH.

It will be seen from the preceding table that the death rate from diarrheal diseases for children under 5 years of age was much higher among the colored (2,799.57) than among the whites (1,782.64), and that among the whites it was highest among the children of mothers born in Bohemia (3,656.68), in Scandinavia (2,666.47), and in Hungary (2,430.02), and was lowest among the children of mothers born in the United States (1,386.16), in England and Wales (1,417.94), and in Scotland (1,526.86). The death rate from these diseases was about the average in children of mothers born in Italy (2,374.46), and in Germany (2,151.48). In persons from 45 to 65 years of age it was highest in the children of mothers born in Ireland (149.84) and in England and Wales (71.74), and lowest in the children of mothers born in Italy (36.10) and in the United States (39.67). In persons 65 years of age and over the death rate from these diseases was higher among the colored (425.78) than among the whites (373.34). Among the whites it was highest among the children of mothers born in Ireland (644.60) and in England and Wales (410.41), and lowest among the children of mothers born in the United States (253.71) and in Germany (273.28).

For further details with regard to death rates from diarrheal diseases in large cities see Part II of this report, page 94.

Out of each 100,000 deaths in the United States from all causes during the census year 9,256 were reported as due to diarrheal diseases, which is somewhat less than the corresponding proportion for 1880 (8,454), and greater than that for 1870 (10,296). In each 1,000 of all deaths from known causes in children under 5 years of age, these diseases caused in the United States as a whole, for the whites, 197.41; for the colored, 148.79; for the Chinese, 246.46; and for the Indians, 111.42. In the registration area the corresponding figure was 184.93.

The following table shows, for the United States and for the registration area and some of its subdivisions, the proportion of deaths due to diarrheal diseases during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of color, sex, nativity, and parental nativity:

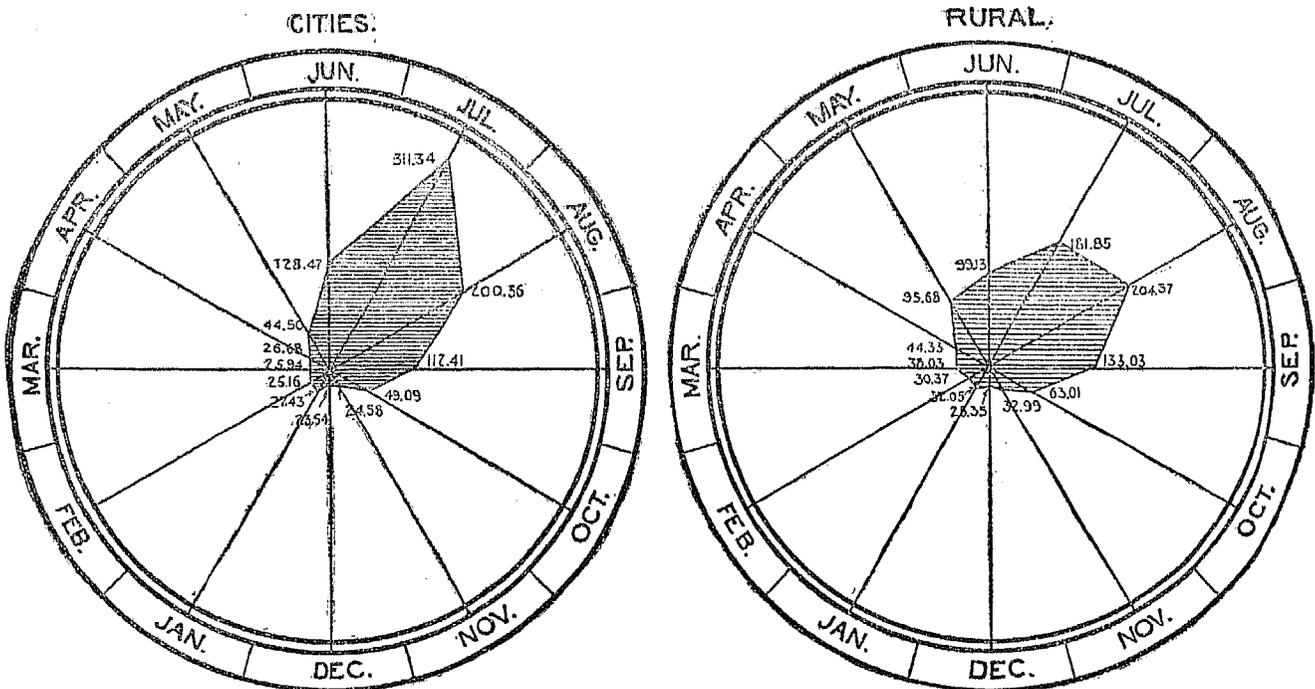
AREAS.	Aggre- gate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
The United States .....	92.56	94.47	94.40	94.55	108.60	95.94	133.79	37.73	79.89	81.58	77.10
Registration area .....	94.70	95.21	93.51	97.10	118.57	85.56	147.45	37.57	88.14	88.92	87.30
Cities .....	99.40	100.28	97.83	103.06	126.74	96.60	151.23	37.20	89.83	90.82	88.76
States .....	92.80	93.13	92.13	94.29	119.16	84.14	150.98	37.59	83.08	82.03	84.19
Cities .....	101.21	101.67	99.73	103.70	130.69	98.02	156.82	36.93	89.27	88.81	89.75
Rural .....	74.03	74.38	75.23	73.47	81.24	70.17	122.87	40.23	57.84	54.67	60.29
Cities in nonregistration states .....	97.53	98.68	95.72	102.18	122.89	92.92	135.35	37.53	89.99	91.40	88.46
Cities of 100,000 population and upward .....	100.02	101.50	.....	.....	131.77	104.72	152.89	35.58	79.00	.....	.....
Metropolitan district, 6 years .....	111.03	112.11	109.63	114.91	147.03	119.97	165.07	39.48	86.81	87.52	86.09

It will be seen from the preceding table that the proportion of deaths due to diarrheal diseases per 1,000 deaths from known causes during the census year was slightly less in the United States as a whole (92.56) than it was in the registration area (94.70). The great difference in the proportion of deaths due to these diseases among the native born and the foreign born is mainly due to the much greater proportion of infants among the native born.

The following table shows, for the United States, the number of deaths from diarrheal diseases in each month during the census year, and the proportion due to these diseases in each month per 1,000 deaths from these diseases, with distinction of cities and of rural districts:

MONTHS.	DEATHS.			PROPORTION IN EACH MONTH PER 1,000 TOTAL DEATHS.		
	United States.	Cities.	Rural.	United States.	Cities.	Rural.
Total .....	74,711	30,879	43,832	.....	.....	.....
June.....	8,312	3,067	4,345	111.26	128.47	99.13
July.....	17,585	9,614	7,971	235.37	311.34	181.85
August.....	15,145	6,187	8,958	202.71	200.96	204.37
September.....	9,302	3,471	5,831	124.51	112.41	133.03
October.....	4,278	1,518	2,762	57.26	49.09	63.01
November.....	2,205	759	1,446	29.51	24.58	32.99
December.....	1,838	727	1,111	24.60	23.54	25.35
January.....	2,252	847	1,405	30.14	27.43	33.05
February.....	2,108	777	1,331	28.22	25.10	30.37
March.....	2,468	801	1,667	33.03	25.94	38.03
April.....	2,767	824	1,943	37.04	26.68	44.33
May.....	5,568	1,374	4,194	74.53	44.50	95.68
Unknown.....	883	15	868	11.82	0.40	19.80

The relative proportion of deaths due to diarrheal diseases in each month in the cities and in the rural districts, as indicated in the table above, and the difference in the proportion of deaths in the two areas, are shown in the following diagram:



It will be seen from the preceding table and diagram that the greatest proportion of deaths due to diarrheal diseases in the United States as a whole occurred in the month of July, and the smallest proportion in the month of December. In the rural districts, however, the greatest proportion occurred in the month of August.

## CAUSES OF DEATH.

287

The following table shows, for the United States, and for the registration area and some of its subdivisions, the proportion of deaths due to diarrheal diseases among the whites during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of birthplaces of mothers:

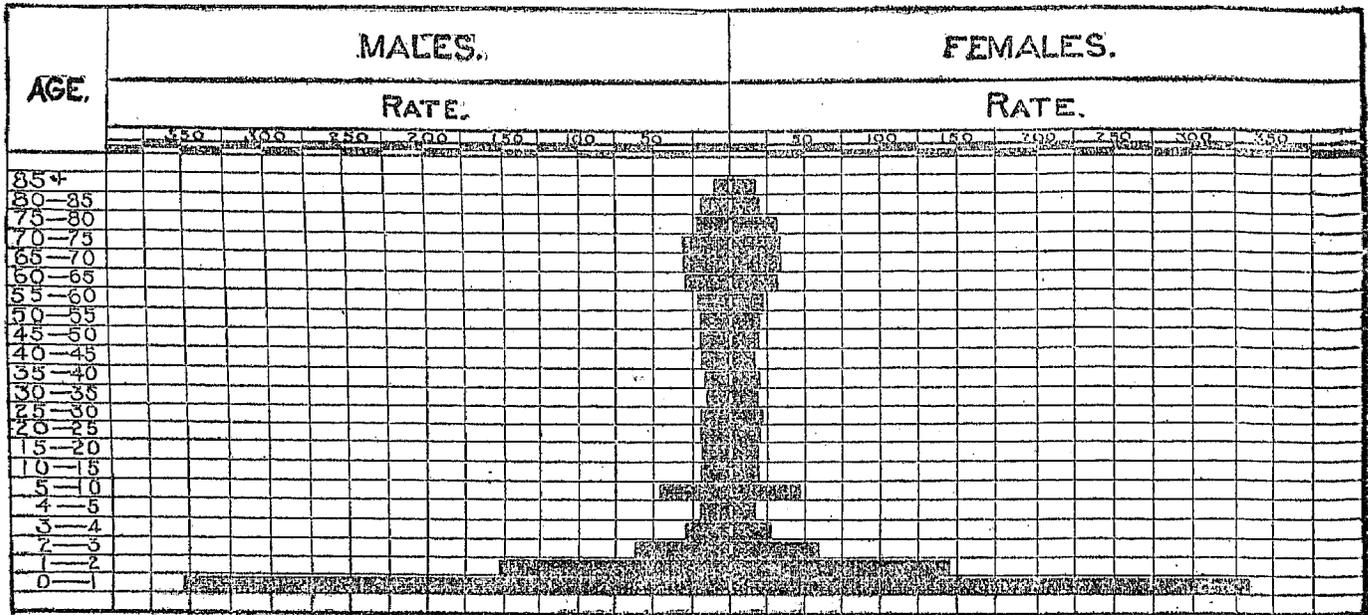
AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
The United States.....	101.65	72.63	62.31	58.75	61.80	88.47	136.00	107.12	144.31	104.89	119.45	113.92
Registration area.....	98.13	79.98	66.56	64.97	69.02	102.01	152.12	133.35	159.44	137.90	126.86	138.80
Cities.....	110.63	85.49	68.29	63.08	69.62	103.02	158.85	131.70	158.21	135.31	129.27	140.06
States.....	95.90	82.35	68.29	65.75	73.06	107.45	158.39	153.11	166.96	171.31	132.68	156.27
Cities.....	109.83	90.34	70.85	69.76	75.17	111.23	168.56	155.34	166.02	166.30	135.69	160.04
Rural.....	77.25	60.71	54.70	52.31	66.08	82.18	132.64	145.05	177.78	312.50	84.21	126.39
Cities in nonregistration states.....	113.66	68.97	59.11	60.22	53.17	90.78	91.64	108.80	131.58	113.06	66.88	107.53
Cities of 100,000 population and upward.	117.35	80.58	68.40	68.92	68.71	106.24	115.88	138.74	155.08	135.67	129.80	139.92

It will be seen from this table that among the whites in the United States as a whole the proportion of deaths due to diarrheal diseases to deaths from known causes was greatest among the children of mothers born in Hungary (144.31), in Canada (136.00), and in Italy (119.45).

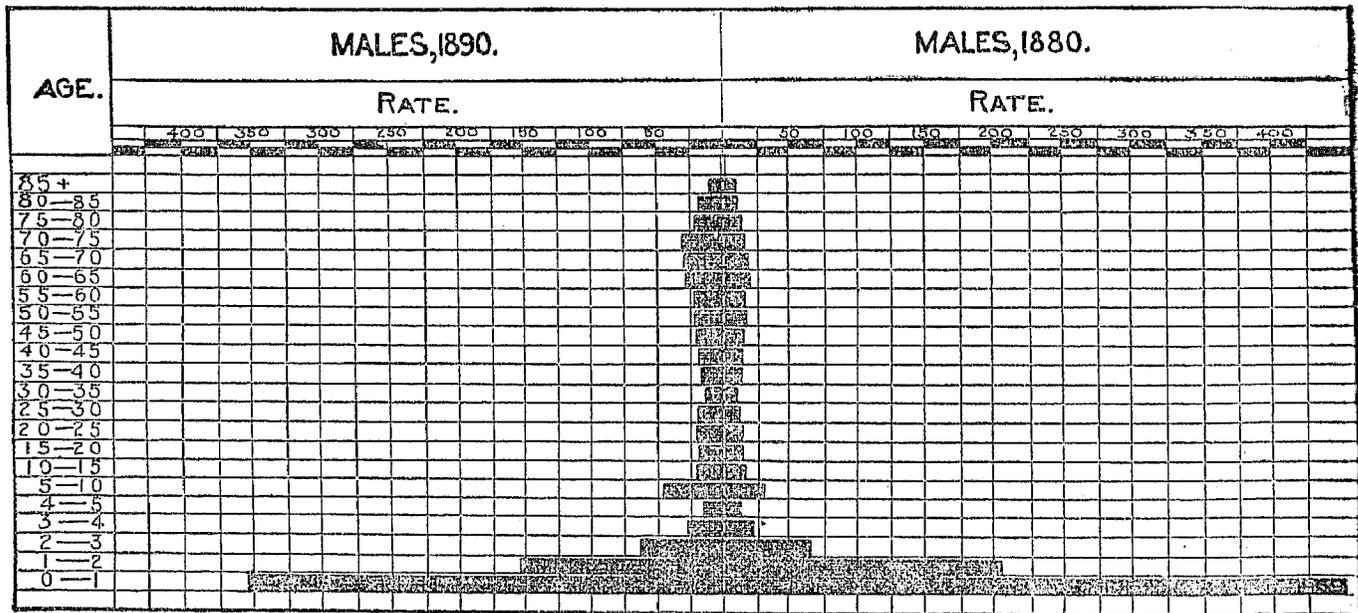
The following table shows the proportion of deaths due to diarrheal diseases, at certain ages and groups of ages, per 1,000 deaths at all ages from these diseases, in 1880 and 1890, with distinction of sex:

AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Total under 5 years..	754.27	746.25	612.80	578.90	85 to 90 years.....	12.46	13.91	17.39	21.07
Under 1 year.....	447.19	443.00	353.79	332.30	40 to 45 years.....	13.08	14.11	18.81	19.63
1 year.....	204.81	200.67	153.73	145.75	45 to 50 years.....	13.35	12.26	21.10	20.53
2 years.....	66.53	68.34	62.13	58.62	50 to 55 years.....	15.02	14.48	22.80	23.10
3 years.....	23.25	22.54	27.11	26.94	55 to 60 years.....	14.40	12.53	23.51	23.87
4 years.....	12.49	11.09	16.09	15.30	60 to 65 years.....	17.90	18.31	28.01	31.33
5 to 10 years.....	29.34	26.68	46.37	46.21	65 to 70 years.....	17.64	17.84	29.20	31.92
10 to 15 years.....	15.11	13.88	21.76	20.71	70 to 75 years.....	16.90	18.07	30.48	30.00
15 to 20 years.....	13.70	11.96	19.82	18.00	75 to 80 years.....	13.61	16.36	23.43	29.42
20 to 25 years.....	13.73	15.12	20.05	22.92	80 to 85 years.....	9.50	12.23	16.05	21.34
25 to 30 years.....	11.52	13.94	20.18	23.00	85 to 90 years.....	5.03	5.78	8.61	10.92
30 to 35 years.....	10.82	13.34	15.73	20.40	90 to 95 years.....	1.59	1.92	2.11	4.02
					95 years and over.....	0.88	1.04	0.77	2.21

The comparative proportions of deaths of males and females in each age group due to diarrheal diseases during the census year are shown in the following diagram:

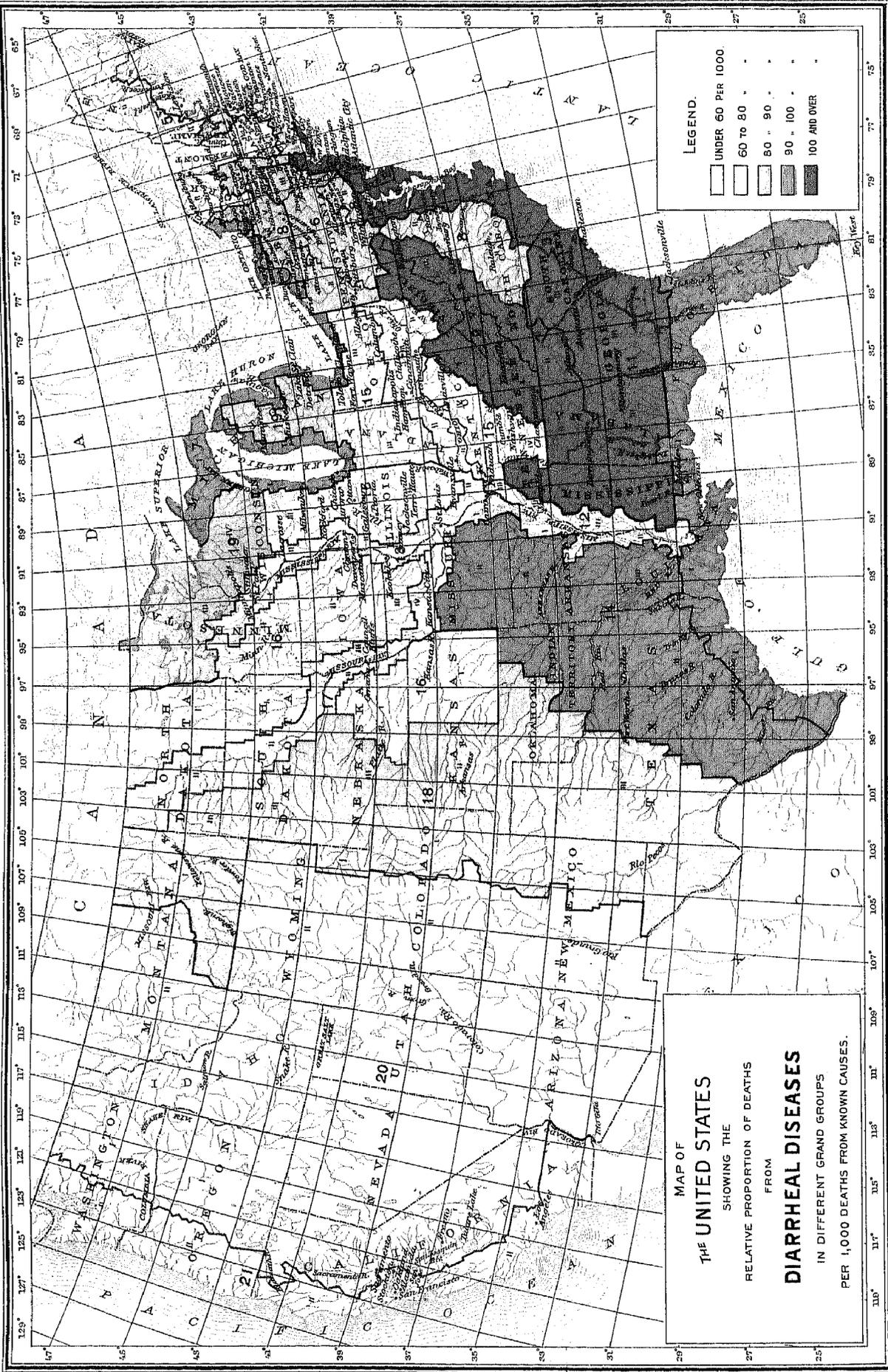


The comparative proportions of deaths of males in each age group due to diarrheal diseases in 1880 and 1890 are shown in the following diagram:



It will be seen from the preceding table and diagrams that in each census and in both sexes more than half of the deaths from diarrheal diseases occurred in children under 5 years of age, but that the proportion in this age group was much greater in 1880 (males, 754.27; females, 746.25) than it was in 1890 (males, 612.86; females, 578.90).

The average age at death of those dying from diarrheal diseases in the United States in 1890 was 19.36 years. Excluding cholera infantum it was 45.48 years. In the registration states it was, for diarrheal diseases, total, 11.47 years; and excluding cholera infantum, 20.76 years.



WASHINGTON: GOVERNMENT PRINTING OFFICE, 1912.

## CAUSES OF DEATH.

289

The following table shows, for each grand group, the proportion of deaths due to diarrheal diseases during the census year per 1,000 deaths from known causes, with distinction of sex and color, of rural and cities, and of children of mothers born in Ireland and in Germany:

GRAND GROUPS.	Total.	RURAL.		CITIES.		White.	Colored.	MOTHERS BORN IN—	
		Males.	Females.	Males.	Females.			Ireland.	Germany.
1. North Atlantic Coast region .....	81.79	67.55	63.28	89.23	91.18	82.10	63.71	60.67	111.19
2. Middle Atlantic Coast region .....	100.79	99.76	104.67	95.88	105.79	101.47	94.54	68.73	102.49
3. South Atlantic Coast region .....	121.50	124.11	118.74	122.31	120.93	159.00	97.60	61.86	144.07
4. Gulf Coast region.....	94.71	93.75	93.81	101.03	90.05	109.24	73.08	21.98	78.13
5. Northeastern hills and plateaus.....	78.81	75.02	69.49	99.13	84.28	79.11	28.41	59.31	126.37
6. Central Appalachian region.....	86.08	77.97	82.02	110.47	110.02	86.59	63.49	63.70	79.82
7. Region of the Great Northern Lakes.....	99.02	80.48	73.95	106.98	113.60	100.27	48.53	50.96	89.71
8. Interior plateau.....	80.55	96.16	92.24	78.28	80.52	86.23	88.89	59.65	76.27
9. Southern Central Appalachian region.....	111.16	113.35	101.96	143.69	150.34	119.42	84.79	72.73	116.75
10. Ohio River belt.....	69.30	70.33	68.72	61.83	64.85	72.83	32.04	41.48	58.20
11. Southern Interior plateau.....	105.75	110.13	101.49	108.53	99.59	137.50	80.08	78.74	141.18
12. South Mississippi River belt.....	77.87	77.10	68.70	122.63	82.67	93.24	68.12	125.00	72.73
13. North Mississippi River belt.....	78.53	76.19	81.02	76.86	82.42	80.71	46.91	40.17	79.71
14. Southwest Central region.....	99.54	101.07	97.71	92.94	110.75	106.64	68.80	75.80	88.53
15. Central region, plains and prairies.....	75.46	78.15	71.40	76.50	83.90	70.12	47.26	45.70	54.57
16. Prairie region.....	70.16	81.10	77.32	76.17	70.47	70.85	45.84	43.25	75.31
17. Missouri River belt.....	78.32	83.96	67.94	79.59	85.16	81.01	53.52	57.03	69.70
18. Region of the Western plains.....	85.27	83.25	88.28	65.83	111.42	87.24	49.70	71.04	88.05
19. Heavily timbered region of the Northwest.....	87.08	87.02	87.14	.....	.....	87.24	80.21	38.82	95.02
20. Cordilleran region.....	57.48	53.07	67.58	23.62	46.33	58.25	48.24	34.57	52.55
21. Pacific Coast region.....	47.42	50.40	57.89	37.40	51.75	48.92	27.33	21.52	31.38

The geographical distribution of deaths in the several grand groups from diarrheal diseases is shown in map No. 14.

It will be seen from the preceding table and the accompanying map that the proportion of deaths due to diarrheal diseases in the rural districts was greatest in the South Atlantic Coast region and the Southern Central Appalachian region, and was least on the Pacific Coast and in the Cordilleran region.

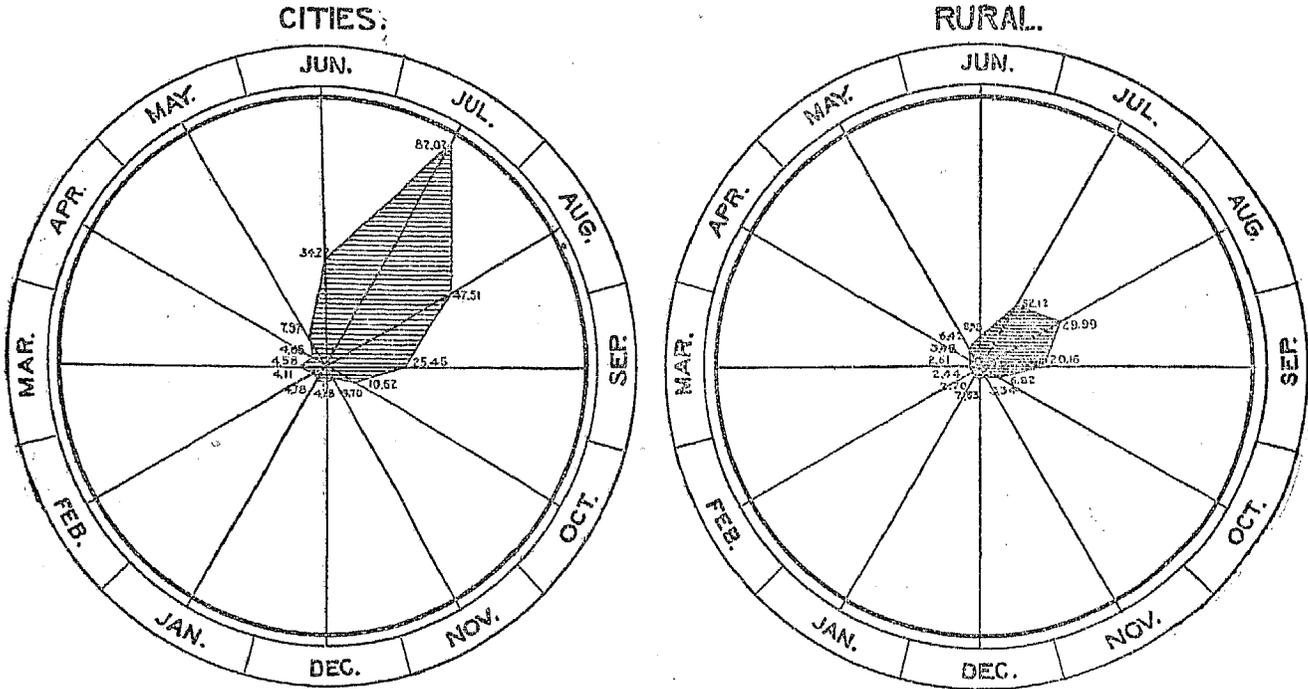
The geographical distribution of deaths from diarrheal diseases, by state groups, per 1,000 deaths from known causes in each group, is shown in map No. 15.

The following table shows, for the sum of Grand Groups 1, 2, and 5, which were mainly registration areas, the number of deaths from diarrheal diseases in each month during the census year, and the death rates per 100,000 of population, with distinction of cities and of rural districts:

MONTHS.	DEATHS.			RATE.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.
June.....	2,521	2,142	379	24.05	34.22	8.98
July.....	6,490	5,134	1,356	61.02	82.02	32.12
August.....	4,240	2,974	1,266	40.45	47.51	29.90
September.....	2,444	1,593	851	23.32	25.45	20.16
October.....	953	665	288	9.09	10.02	6.82
November.....	435	294	141	4.15	4.70	3.34
December.....	410	299	111	3.91	4.78	2.63
January.....	413	299	114	3.94	4.78	2.70
February.....	360	257	103	3.43	4.11	2.44
March.....	397	287	110	3.79	4.58	2.61
April.....	438	291	147	4.18	4.65	3.48
May.....	770	499	271	7.35	7.97	6.42

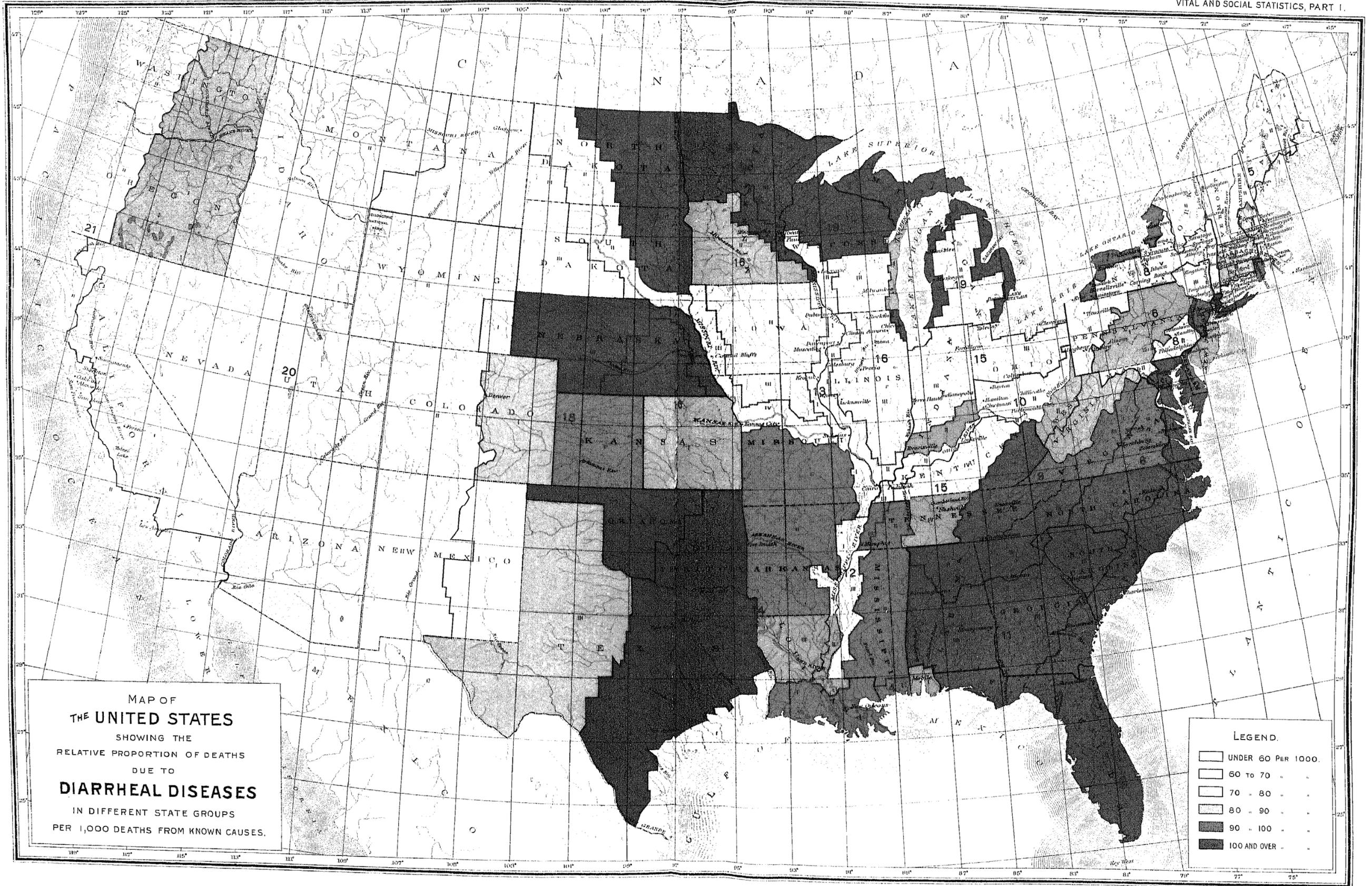
VITAL AND SOCIAL STATISTICS.

The death rates in each month, as given in the preceding table, and the relative magnitude of the rates in the cities and the rural districts, are shown graphically in the following diagram:

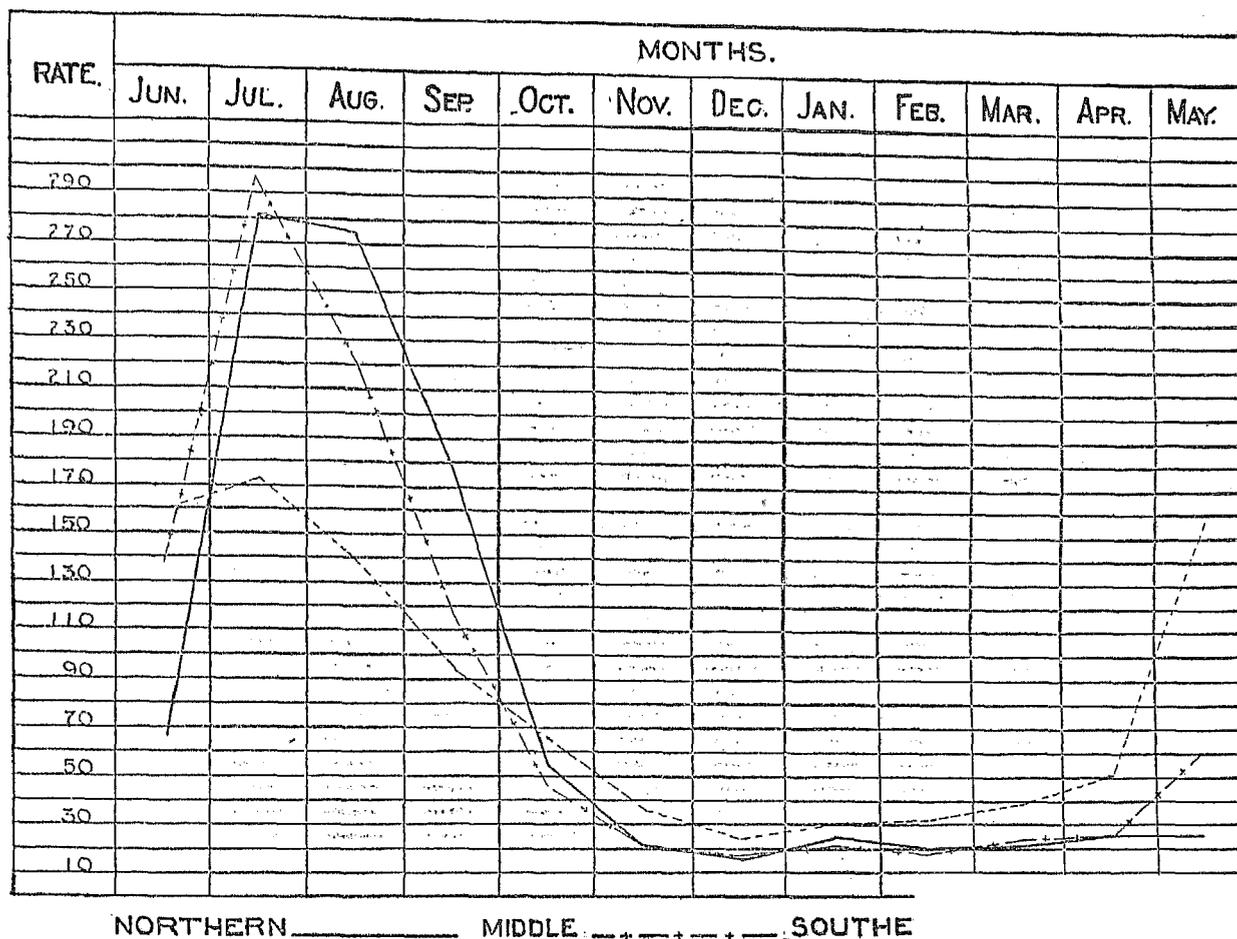


The following table shows, for three divisions of grand groups, namely, Northern, Middle, and Southern, the number of deaths from diarrheal diseases under 5 years of age in each month during the census year, and the proportion in each month per 1,000 deaths under 5 years from these diseases of which the month is known.

MONTHS.	NORTHERN REGION. GRAND GROUPS 1, 5, 7, 13, 17, AND 19.		MIDDLE REGION. GRAND GROUPS 2, 6, 8, 10, 15, 16, 18, 20, AND 21.		SOUTHERN REGION. GRAND GROUPS 3, 4, 9, 11, 12, AND 14.	
	Deaths.	Proportion.	Deaths.	Proportion.	Deaths.	Proportion.
June.....	1,009	66.00	3,892	137.24	1,779	159.22
July.....	4,295	280.06	8,423	297.00	1,926	172.38
August.....	4,190	274.68	6,146	216.71	1,552	138.91
September.....	2,673	174.85	3,300	116.68	1,054	94.33
October.....	823	53.84	1,298	45.77	742	66.41
November.....	318	20.80	587	20.70	390	35.71
December.....	237	15.50	491	17.31	284	25.43
January.....	300	24.14	595	20.98	330	30.34
February.....	313	20.47	537	18.94	340	31.24
March.....	326	21.33	660	23.27	420	37.59
April.....	360	23.55	722	25.46	575	51.46
May.....	365	23.88	1,700	59.94	1,754	156.99



The relative proportion of deaths in each month in the several divisions, as given in the preceding table, is shown graphically in the following diagram:



It will be seen from the preceding table and diagram that in the Northern proportion of deaths due to diarrheal diseases in children under 5 years of age or August, and the least in December; that the difference in the proportion of deaths due to these causes in May and June was much greater in the Southern groups. The greatest variation is seen in the North Atlantic grand groups of the per cent of all the deaths from these causes occurred in the month of July and Grand Group 4 of the Southern division, comprising the Gulf coast, the range cent in March.

MALARIAL FEVER.

Under the term "malarial fever" are included those deaths reported as congestive, and bilious fevers. A certain number of these were no doubt due is impossible to determine the proportion. Cases of death reported as due to under enteric fever.

The total number of deaths reported as due to malarial fever in the Unit was 18,594, of which 9,631 were of males and 8,963 were of females. In the deaths reported as due to this disease was, males, 1,913; females, 1,860; total, 3, per 100,000 of population.

## VITAL AND SOCIAL STATISTICS.

The following table shows, for the registration area and some of its subdivisions, the death rates from malarial fever during the census year per 100,000 of population, with distinction of color, sex, general nativity, and parental nativity:

AREAS.	Aggre- gate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
Registration area.....	19.10	16.49	16.82	16.16	15.96	14.30	13.74	17.97	72.05	73.00	71.12
Cities.....	21.41	18.00	18.46	17.54	17.04	16.52	14.34	19.82	76.54	77.93	75.20
States.....	14.75	14.10	14.05	14.27	13.60	13.28	14.12	15.78	39.60	38.56	40.70
Cities.....	16.46	15.65	15.53	15.77	15.15	15.20	15.13	16.69	46.33	45.70	46.88
Rural.....	12.12	11.91	11.90	11.92	11.72	11.81	11.40	12.92	24.35	23.51	25.25
Cities in nonregistration states.....	25.98	20.31	21.25	19.34	19.95	19.36	12.53	21.23	81.04	86.49	83.49
Cities of 100,000 population and upward.....	18.80	16.84	.....	.....	16.50	15.16	13.89	17.53	57.45	.....	.....
Metropolitan district, 6 years.....	27.49	27.39	26.87	27.90	28.27	32.02	25.83	25.91	32.06	30.38	35.44

It will be seen from this table that the death rate from this disease was more than four times as high among the colored (72.05) as it was among the whites (16.49); that it was nearly the same among males (whites, 16.82; colored, 73.00) as it was among females (white, 16.16; colored, 71.12); and that among the whites it was higher among the foreign born (17.97) than it was among the natives (15.96). In the registration states it was higher in the cities (16.46) than it was in the rural districts (12.12), and was highest of all in the metropolitan district for the 6-year period (27.49).

The following table shows, for each of the registration states and for their sum, the death rates from malarial fever during the census year per 100,000 of population, with distinction of sex, and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total.....	14.75	16.46	12.12	14.61	16.30	12.11	14.88	16.62	12.14
Connecticut.....	25.59	32.22	20.88	23.81	33.49	17.03	27.34	31.00	21.70
Delaware.....	16.62	17.91	15.88	17.53	16.23	18.26	15.68	19.60	13.38
District of Columbia.....	42.54	42.54	.....	38.33	38.33	.....	46.35	46.35	.....
Massachusetts.....	5.14	4.67	6.68	5.88	5.31	7.72	4.43	4.66	5.66
New Hampshire.....	5.31	8.14	4.13	8.04	11.51	6.69	2.63	5.14	1.52
New Jersey.....	18.96	21.74	15.33	19.98	21.47	18.06	17.95	22.60	12.56
New York.....	15.89	17.87	12.69	15.59	17.68	12.31	16.19	18.04	13.09
Rhode Island.....	17.08	21.99	10.31	11.90	15.65	6.93	21.97	27.63	13.64
Vermont.....	4.21	.....	4.60	3.54	.....	3.85	4.01	.....	5.30

It will be seen from this table that in the rural districts the death rate from malarial fever was lowest in New Hampshire (4.13) and in Vermont (4.60), and was highest in Connecticut (20.88). In the cities it was highest in the District of Columbia (42.54) and in Connecticut (32.22), and lowest in Massachusetts (4.67) and in New Hampshire (8.14). In the states of Massachusetts, New Hampshire, and Vermont it is probable that most of the cases of death reported as due to malarial fever were really due to typhoid fever, or else that the disease had been contracted elsewhere.

## CAUSES OF DEATH.

293

following table shows, for the registration area and some of its subdivisions, the death rates from malarial fever among the whites during the census year, per 100,000 of white population, with distinction of birthplaces as follows:

AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
Registration area.....	11.10	12.46	17.44	12.76	7.82	11.43	8.03	14.36	9.37	19.65	15.71	10.87
.....	12.49	13.59	18.42	13.51	7.67	11.77	9.06	12.55	10.75	17.83	16.67	10.40
.....	11.60	11.23	17.95	13.86	10.42	12.26	7.01	20.33	11.90	38.58	14.76	9.86
.....	14.24	12.17	19.28	15.32	12.26	13.02	7.61	18.52	14.21	35.45	15.71	9.01
.....	9.42	9.28	13.79	10.34	5.95	8.98	6.06	24.62	.....	69.11	9.95	14.65
Registration states.....	8.71	17.48	14.16	7.91	.....	9.06	16.28	8.28	.....	7.95	22.08	13.55
100,000 population and upward..	13.99	13.76	20.28	16.60	6.72	10.33	12.96	8.89	8.18	19.07	13.95	10.37

1,116 deaths from malarial fever in whites in the registration area during the census year, 770 were of mothers born in the United States, 464 children of mothers born in Ireland, 243 children of mothers born in Germany, 87 children of mothers born in England and Wales, 54 children of mothers born in Canada, 49 children of mothers born in Scandinavia, 26 children of mothers born in Scotland, 22 children of mothers born in Bohemia, 8 children of mothers born in France, and 3 children of mothers born in Hungary. Omitting the death rates from this cause for the children of mothers born in Hungary, Bohemia, and France, in whom the number of deaths was too small to afford reliable ratios, it will be seen from the table that the highest death rate from malarial fever occurred in the children of mothers born in Ireland (17.44), and in Italy (15.71), and the lowest in the children of mothers born in the United States (11.10), and Canada (8.03).

following table shows, for the registration area and some of its subdivisions, the death rates from malarial fever during the census year in each of six age groups per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	Under 5 years.	Under 15 years.	15 to 25 years.	25 to 35 years.	35 to 45 years.	45 years and over.
Registration area.....	35.83	20.30	15.25	13.91	15.71	28.81
Males.....	35.87	20.24	15.99	14.05	16.55	28.92
Females.....	34.79	20.36	14.58	13.15	14.83	28.71
Cities.....	39.50	23.14	16.89	14.83	18.12	33.51
Males.....	40.72	23.50	17.95	15.66	18.83	33.39
Females.....	38.25	22.77	15.95	13.98	17.37	33.63
States.....	24.36	13.88	10.03	11.70	11.15	24.19
Males.....	24.07	13.72	10.33	12.34	10.69	24.31
Females.....	24.65	14.05	11.50	11.00	11.70	24.07
Cities.....	26.94	15.90	11.83	12.47	13.26	26.00
Males.....	28.57	16.52	10.90	13.30	11.56	28.81
Females.....	25.30	15.28	12.65	11.67	14.96	20.34
Rural.....	19.94	10.73	9.39	10.22	7.75	18.86
Males.....	18.04	9.42	9.42	10.56	8.87	19.62
Females.....	21.89	12.09	9.37	9.88	6.62	18.11
Cities in nonregistration states.....	50.35	29.42	21.51	16.95	22.76	38.19
Males.....	51.15	29.55	24.27	17.65	25.86	37.98
Females.....	49.53	29.29	19.00	16.18	19.83	38.39
Cities of 100,000 population and upward.....	33.60	20.14	14.39	13.45	16.54	32.38
Males.....	37.59	21.57	15.07	12.94	15.32	31.60
Females.....	29.53	18.71	13.79	13.99	17.87	33.05
Metropolitan district.....	37.40	21.27	12.54	16.15	14.98	36.71
Males.....	38.86	22.61	14.27	16.46	12.91	34.40
Females.....	35.99	19.92	11.04	15.84	17.79	38.94

It will be seen from this table that the highest death rate from malarial fever occurred in children under 5 years of age; that in this age group it was a trifle higher among males (35.87) than among females (34.79); in the registration states it was higher in the cities (26.94) than it was in the rural districts (19.94), in the registration states it was higher for females (21.89) than for males (18.04). It was highest of all in the cities of the registration states (50.35).

## VITAL AND SOCIAL STATISTICS.

In the age group 45 years of age and over the death rate from this disease was about the same in males (28.92) as it was in females (28.71). In the registration states it was higher in the cities (29.09) than it was in the rural districts (18.86).

The combined relations of age and race to the death rates from malarial fever are indicated in the following table showing the number of deaths in each of six age groups, and the death rates per 100,000 population of corresponding ages, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New Jersey, for the census year:

COLOR AND BIRTHPLACES OF MOTHERS.	UNDER 5 YEARS.		UNDER 15 YEARS.		15 TO 25 YEARS.		25 TO 35 YEARS.		35 TO 45 YEARS.		45 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
White.....	144	29.69	235	17.43	101	10.64	116	13.53	80	13.61	240	29.68
Colored .....	24	153.05	36	74.86	19	46.72	11	30.99	6	22.21	16	56.34
Birthplaces of mothers (white):												
United States .....	68	27.53	110	10.78	37	11.29	37	14.79	25	13.23	66	22.59
Ireland .....	24	36.35	49	22.61	35	14.28	47	20.67	21	14.19	88	43.47
Germany .....	26	32.41	36	14.92	13	6.17	15	7.34	16	11.98	39	21.55

This table indicates that for children under 5 years of age the death rate per 100,000 due to malarial fever was about five times as high among the colored (153.05) as it was among the whites (29.69), and that among the whites it was highest in the children of mothers born in Ireland (36.35), and lowest among the children of mothers born in the United States (27.53); that in all the age groups it was higher among the colored than among the whites, and among the whites it was higher among the children of mothers born in Ireland than in the children of mothers born in the United States or in Germany.

In the age group 45 years of age and over the death rate from this disease was, for the colored, 56.34; for the whites, 29.68; and among the whites, for the children of mothers born in Ireland, it was 43.47; for the children of mothers born in Germany, 21.55; and for the children of mothers born in the United States, 22.59.

For further details with regard to the rates from malarial fever in large cities, see Part II of this report page 85.

Out of 100,000 deaths from all causes in the United States during the census year, 2,123.76 were reported as due to malarial fever, the corresponding figures in 1880 having been 2,673, and in 1870, 2,374.

The number of deaths due to malarial fever in children under 15 years of age per 1,000 of all deaths from known causes occurring under 15 years of age in the United States was, for the whites, 16.72; for the colored, 58.28; and for the Indians, 15.69. In the registration area the corresponding proportion was 6.63 per 1,000.

The following table shows, for the United States and for the registration area and some of its subdivisions, the proportion of deaths due to malarial fever during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of color, sex, general nativity, and parental nativity:

AREAS.	Aggre- gate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
The United States.....	23.04	18.48	18.12	18.88	20.24	25.38	10.64	11.42	54.59	54.79	54.38
Registration area.....	9.89	8.72	8.41	9.06	8.48	8.08	6.40	9.36	25.02	24.07	26.03
Cities.....	10.31	8.91	8.50	9.30	8.64	8.78	6.18	9.55	25.62	24.67	26.64
States.....	7.66	7.42	7.02	7.86	7.21	7.74	6.51	8.03	14.64	13.50	15.84
Cities.....	7.48	7.19	6.68	7.75	6.82	7.65	6.15	8.03	14.79	13.51	16.10
Rural.....	8.06	7.94	7.77	8.11	7.92	7.83	8.25	8.01	13.99	13.33	14.71
Cities in nonregistration states.....	13.25	10.88	10.64	11.17	10.65	11.71	6.27	11.48	28.82	27.89	29.83
Cities of 100,000 population and upward.....	8.73	8.00	.....	.....	7.66	6.98	5.81	8.73	18.72	.....	.....
Metropolitan district, 6 years.....	11.02	11.00	10.07	12.05	10.53	11.76	9.72	11.97	12.22	10.41	14.25

The preceding table indicates that the proportion of deaths due to malarial fever to deaths from known causes was much greater in the United States as a whole (23.04) than it was in the registration area (9.89), and that in both areas it was much greater among the colored than among the whites.

In the United States as a whole the proportion was greater among the native born whites (20.24) than it was among the foreign born whites (11.42), and was much greater among the native born whites having both parents native (25.38) than among those of whom one or both parents were foreign born (10.64).

The following table shows, for the United States and for the registration area and some of its subdivisions the proportion of deaths due to malarial fever among the whites during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of birthplaces of mothers:

AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
The United States.....	23.02	10.16	9.39	8.72	16.75	10.96	8.40	9.77	4.51	10.59	8.17	15.12
Registration area.....	8.14	7.57	8.29	7.89	4.50	6.71	4.98	9.21	4.20	7.31	6.19	5.57
Cities.....	8.01	7.83	8.05	7.94	4.52	6.68	4.96	7.77	4.48	6.49	5.94	5.65
States.....	8.04	6.66	8.27	8.13	6.17	6.84	4.28	11.89	5.33	12.85	5.55	5.72
Cities.....	7.80	6.66	8.00	8.26	6.71	6.78	3.98	9.71	5.79	11.09	5.24	4.89
Rural.....	8.35	6.66	9.71	7.69	4.41	7.21	5.63	19.78	.....	62.50	10.53	13.59
Cities in nonregistration states.....	8.85	11.82	8.44	6.45	.....	6.44	11.81	5.89	.....	3.18	12.74	5.31
Cities of 100,000 population and upward.	7.42	7.67	7.89	8.77	3.68	5.55	6.19	5.60	3.57	6.64	4.76	4.78

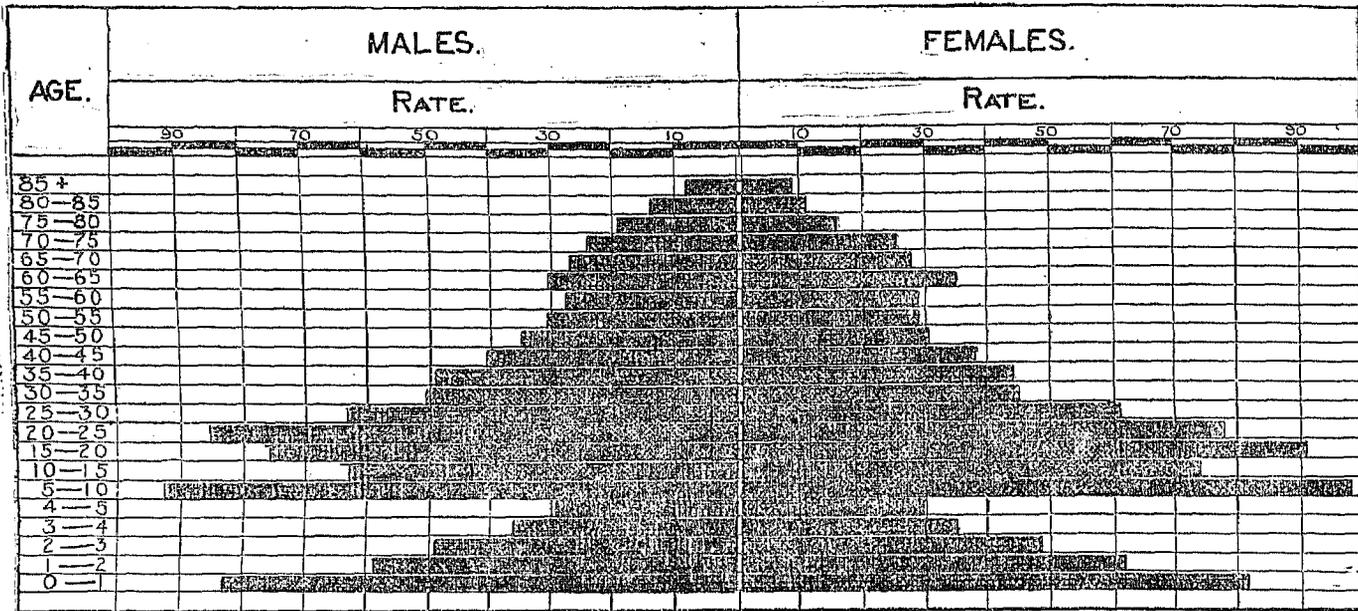
This table indicates that in the United States, as a whole, the greatest proportion of deaths due to malarial fever to deaths from known causes among the whites occurred in the children of mothers born in the United States (23.02), and the least in the children of mothers born in Hungary (4.51).

The following table shows the proportion of deaths due to malarial fever, at certain ages and groups of ages per 1,000 deaths at all ages from these causes, in 1880 and in 1890, with distinction of sex:

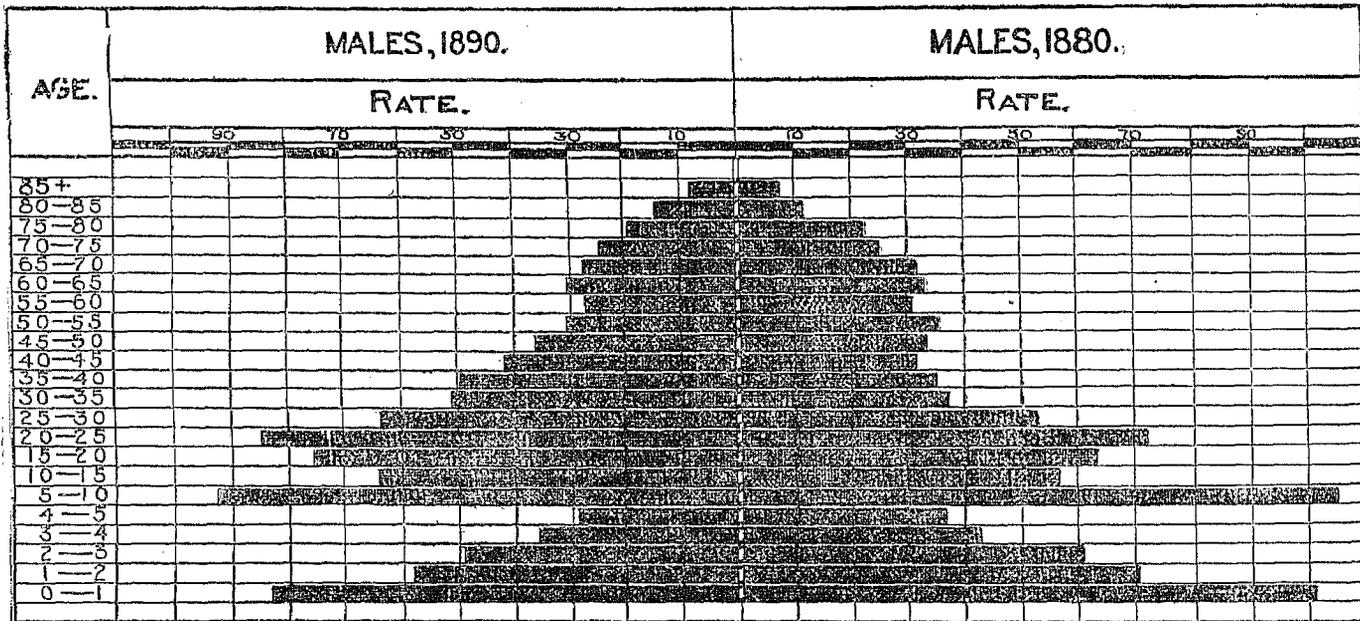
AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Total under 5 years..	312.74	300.61	256.53	257.81	35 to 40 years .....	35.50	41.02	49.96	44.23
Under 1 year.....	101.60	97.05	83.34	82.48	40 to 45 years .....	31.97	29.63	41.04	37.08
1 year.....	70.22	68.63	58.05	62.06	45 to 50 years .....	33.93	30.63	30.00	30.58
2 years.....	60.80	55.73	49.54	48.40	50 to 55 years .....	35.99	31.34	30.33	28.55
3 years.....	43.86	43.94	36.33	35.32	55 to 60 years .....	30.40	23.38	27.71	28.55
4 years.....	37.27	35.27	29.29	29.56	60 to 65 years .....	33.44	30.03	30.23	35.09
5 to 10 years .....	105.91	116.30	92.80	98.05	65 to 70 years .....	31.58	24.49	27.19	27.53
10 to 15 years .....	56.00	67.42	63.92	74.58	70 to 75 years .....	25.60	27.11	24.77	25.10
15 to 20 years .....	62.96	72.76	76.83	91.05	75 to 80 years .....	22.65	22.57	19.10	16.59
20 to 25 years .....	72.08	65.20	85.55	77.63	80 to 85 years .....	11.57	13.91	14.17	11.96
25 to 30 years .....	52.27	52.30	63.82	60.59	85 to 90 years .....	4.61	5.74	5.98	5.64
30 to 35 years .....	37.85	42.43	51.33	45.13	90 to 95 years .....	1.57	2.22	1.68	2.14
					95 years and over .....	1.37	1.51	0.94	1.47

VITAL AND SOCIAL STATISTICS.

The comparative proportions of deaths of males and females in each age group from malarial fever during the census year are shown in the following diagram:

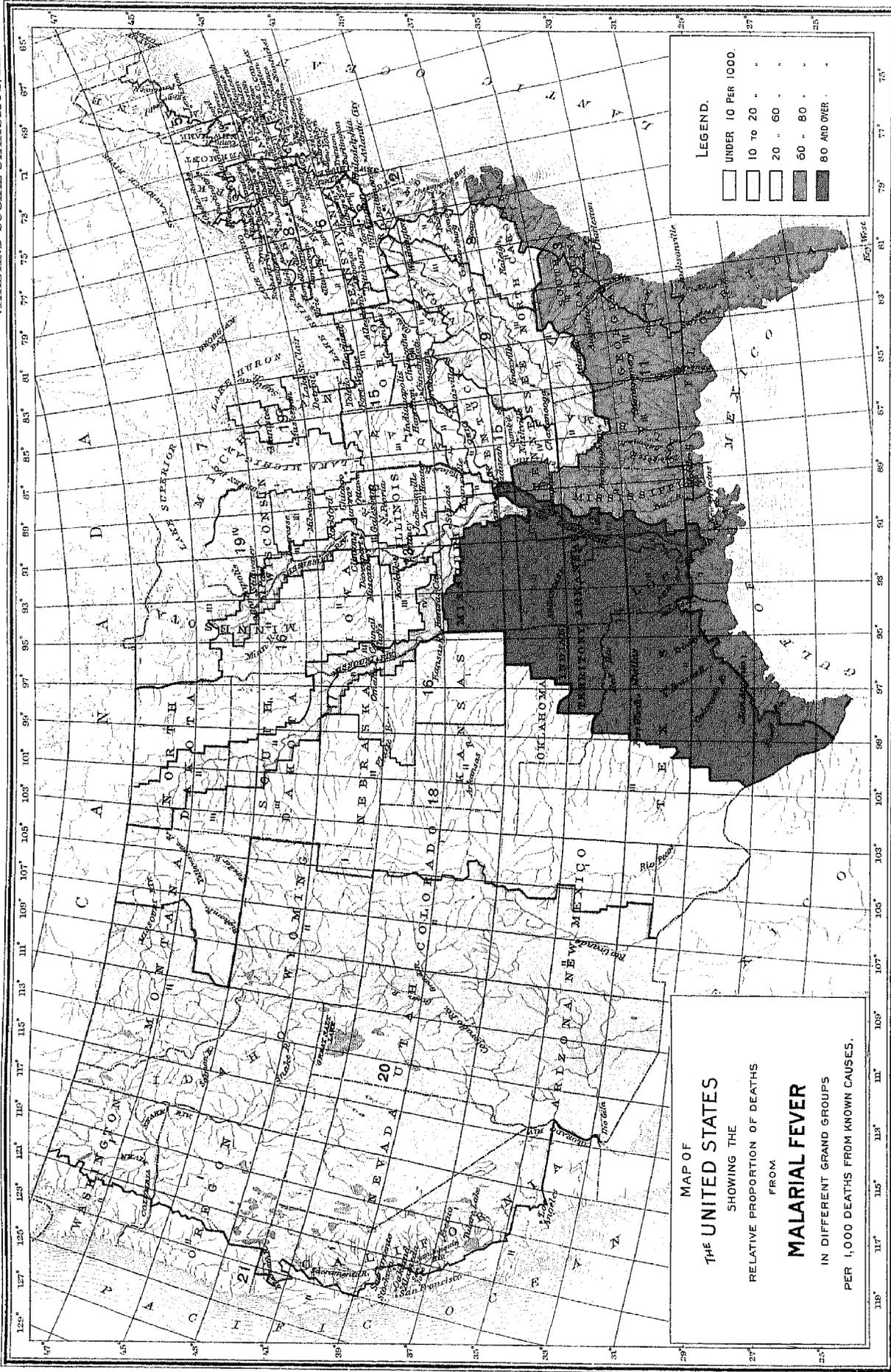


The comparative proportions of deaths of males in each age group from malarial fever in 1880 and in 1890 are shown in the following diagram:



It will be seen from the preceding table and diagrams that in 1890 a little over 25 per cent of all the deaths from malarial fever occurred in children under 5 years of age.

The average age at death of those dying from malarial fever in the United States in 1890 was 25.83 years. In the registration states it was 34.55. In 1880 in the United States it was 24 years.



U.S. GEOLOGICAL SURVEY

## CAUSES OF DEATH.

297

Following table shows, for each grand group, the proportion of deaths due to malarial fever during the year per 1,000 deaths from known causes, with distinction of sex and color, of rural districts and cities, of children of mothers born in Ireland and in Germany:

GRAND GROUPS.	Total.	RURAL.		CITIES.		White.	Colored.	MOTHERS BORN IN—	
		Males.	Females.	Males.	Females.			Ireland.	Germany.
North Atlantic Coast region.....	4.89	5.20	5.02	4.45	4.68	4.91	3.86	5.27	5.03
Middle Atlantic Coast region.....	10.30	16.75	19.70	7.69	9.41	9.13	21.09	10.02	6.28
South Atlantic Coast region.....	65.00	69.53	80.08	40.41	33.25	61.57	67.18	87.63	59.32
Gulf Coast region.....	68.41	91.07	89.66	45.69	41.00	66.92	70.62	54.95	161.46
Northeastern hills and plateaus.....	4.81	4.93	4.46	4.05	5.00	4.77	11.36	7.88	3.06
Central Appalachian region.....	6.96	7.25	6.65	4.61	6.45	6.81	13.23	7.20	7.76
Region of the Great Northern Lakes.....	7.85	11.37	14.85	4.71	6.24	7.70	12.42	9.01	7.86
Inferior plateau.....	10.90	14.88	16.91	6.22	6.38	8.23	30.28	6.46	6.26
Southern Central Appalachian region.....	22.04	22.35	22.78	16.51	19.38	20.73	26.58	.....	5.98
Ohio River belt.....	11.86	14.42	14.17	8.09	6.43	11.93	11.00	11.67	8.25
Southern Interior plateau.....	61.32	63.42	69.16	40.31	53.21	66.61	65.13	31.50	82.35
North Mississippi River belt.....	119.38	125.52	135.21	85.84	76.31	120.51	118.66	162.50	72.73
North Mississippi River belt.....	24.23	29.27	32.46	15.64	18.65	23.43	37.76	4.30	12.42
Northwest Central region.....	88.15	89.72	90.58	53.31	53.20	83.26	109.31	75.80	76.78
Central region, plains and prairies.....	18.74	19.03	19.24	9.94	15.02	17.07	27.05	17.06	13.02
Southern region.....	16.21	16.68	17.11	4.48	7.25	15.75	38.90	12.28	11.71
Missouri River belt.....	20.12	19.29	22.65	14.84	23.03	19.82	22.36	7.60	18.18
Region of the Western plains.....	18.47	22.42	27.41	1.33	1.89	18.84	11.93	16.39	34.59
Savily timbered region of the Northwest.....	11.99	10.61	13.57	.....	.....	12.21	2.67	6.69	10.75
Illinoian region.....	21.72	19.10	27.61	7.87	7.72	21.29	26.90	5.12	16.42
Pacific Coast region.....	6.34	7.33	7.63	4.57	7.01	6.37	5.98	7.17	7.24

Geographical distribution of deaths from malarial fever in the several grand groups is shown in map

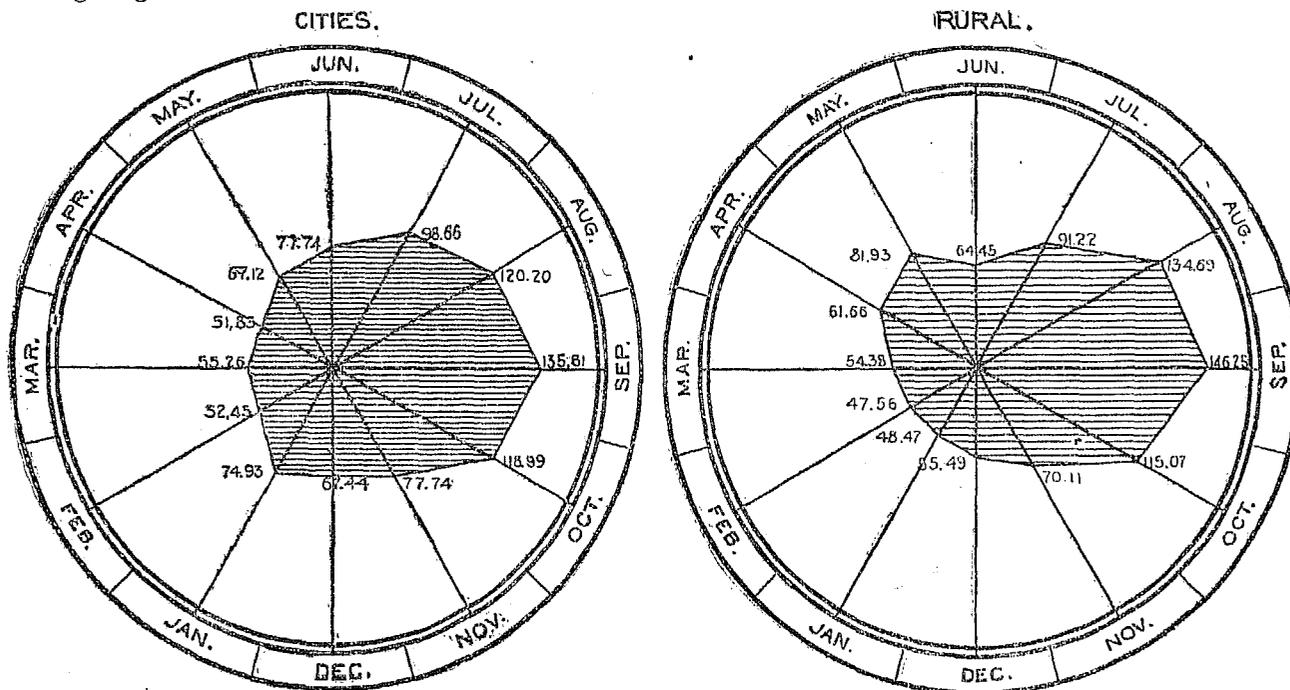
It can be seen from the preceding table and the accompanying map that the proportion of deaths due to malarial fever to deaths from known causes in the rural districts was greatest in the South Mississippi River and Northwest Central region, and on the Gulf coast, and was least in the Northeastern hills and plateaus.

The geographical distribution of deaths from malarial fever by state groups, per 1,000 deaths from known causes in each group, is shown in map No. 17.

The following table shows, for the United States, the number of deaths from malarial fever in each month of each year, and the proportion in each month per 1,000 deaths from this cause, with distinction of rural districts:

MONTHS.	DEATHS.			PROPORTION IN EACH MONTH PER 1,000 TOTAL DEATHS.		
	United States.	Cities.	Rural.	United States.	Cities.	Rural.
Total.....	18,594	3,203	15,391	.....	.....	.....
June.....	1,241	240	992	66.74	77.74	64.45
July.....	1,720	316	1,404	92.50	98.66	91.22
August.....	2,458	365	2,073	132.19	120.20	134.69
September.....	2,686	435	2,251	144.46	135.81	146.25
October.....	2,155	384	1,771	115.00	119.80	115.07
November.....	1,328	249	1,079	71.42	77.74	70.11
December.....	1,070	210	854	57.55	67.44	55.40
January.....	986	240	746	53.03	74.03	48.47
February.....	900	168	732	48.40	52.45	47.56
March.....	1,014	177	837	54.53	55.26	54.38
April.....	1,115	166	949	59.97	51.83	61.66
May.....	1,476	215	1,261	79.38	67.12	81.93
Unknown.....	445	3	442	23.03	0.94	28.72

The relative proportion of deaths from malarial fever in each month in the cities and in the rural districts, as indicated in the table above, and the difference in the proportion of deaths in the two areas are shown by the following diagram:



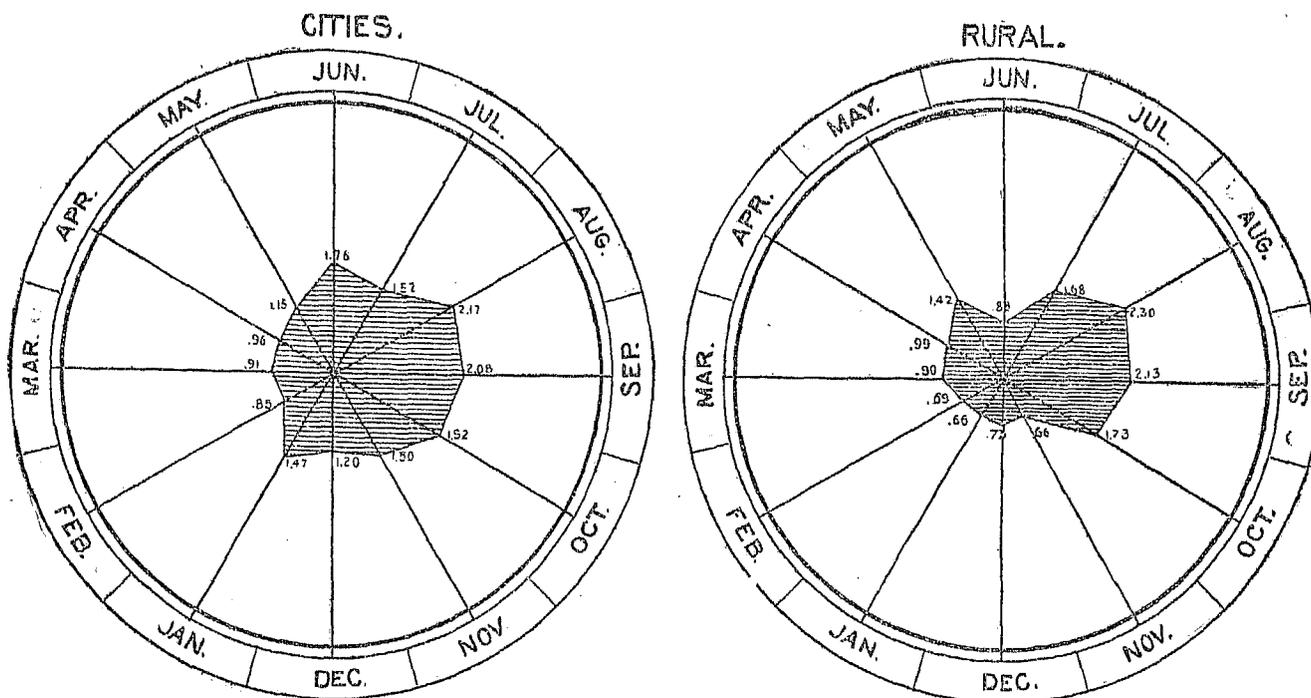
The preceding table and diagram indicate that the greatest proportion of deaths from this cause in the United States occurred in the months of August, September, and October; and the least proportion in January, February, and March.

The following table shows for the sum of Grand Groups 1, 2, and 5, which were mainly registration areas, the number of deaths from malarial fever in each month during the census year, and the death rates per 100,000 of population, with distinction of cities and of rural districts:

MONTHS.	DEATHS.			RATE.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.
June.....	147	110	37	1.40	1.76	0.88
July.....	166	95	71	1.58	1.53	1.68
August.....	233	136	97	2.22	2.17	2.30
September.....	220	180	40	2.10	2.08	2.13
October.....	183	120	73	1.84	1.92	1.73
November.....	123	94	28	1.16	1.50	0.66
December.....	106	75	31	1.01	1.20	0.73
January.....	120	92	28	1.14	1.47	0.66
February.....	82	53	29	0.78	0.85	0.69
March.....	95	57	38	0.91	0.91	0.60
April.....	102	60	42	0.97	0.96	0.99
May.....	132	72	60	1.26	1.15	1.42

It will be seen from the preceding table that in the aggregate the highest death rates from malarial fever occurred in August and September and the lowest in February and March. All of the death rates were low, owing to the fact that the portion of the country to which they relate is that least affected by malarial fever.

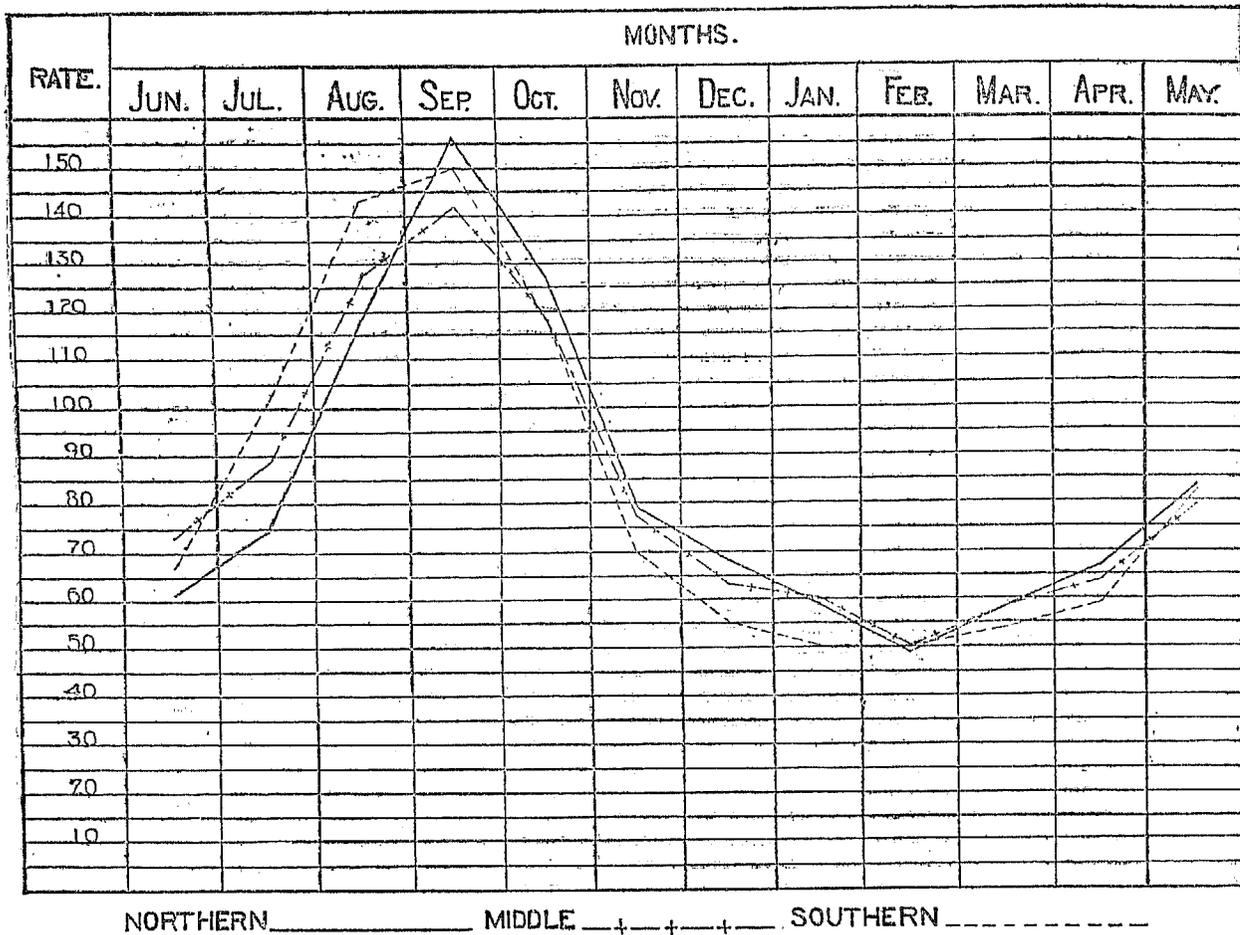
The death rates in each month, as given in the table above, and the relative magnitude of the rates in the cities and the rural districts are shown in the following diagram:



The following table shows for three divisions of grand groups, namely, Northern, Middle, and Southern, the number of deaths from malarial fever in each month during the census year, and the proportion in each month per 1,000 deaths from this cause of which the month is known:

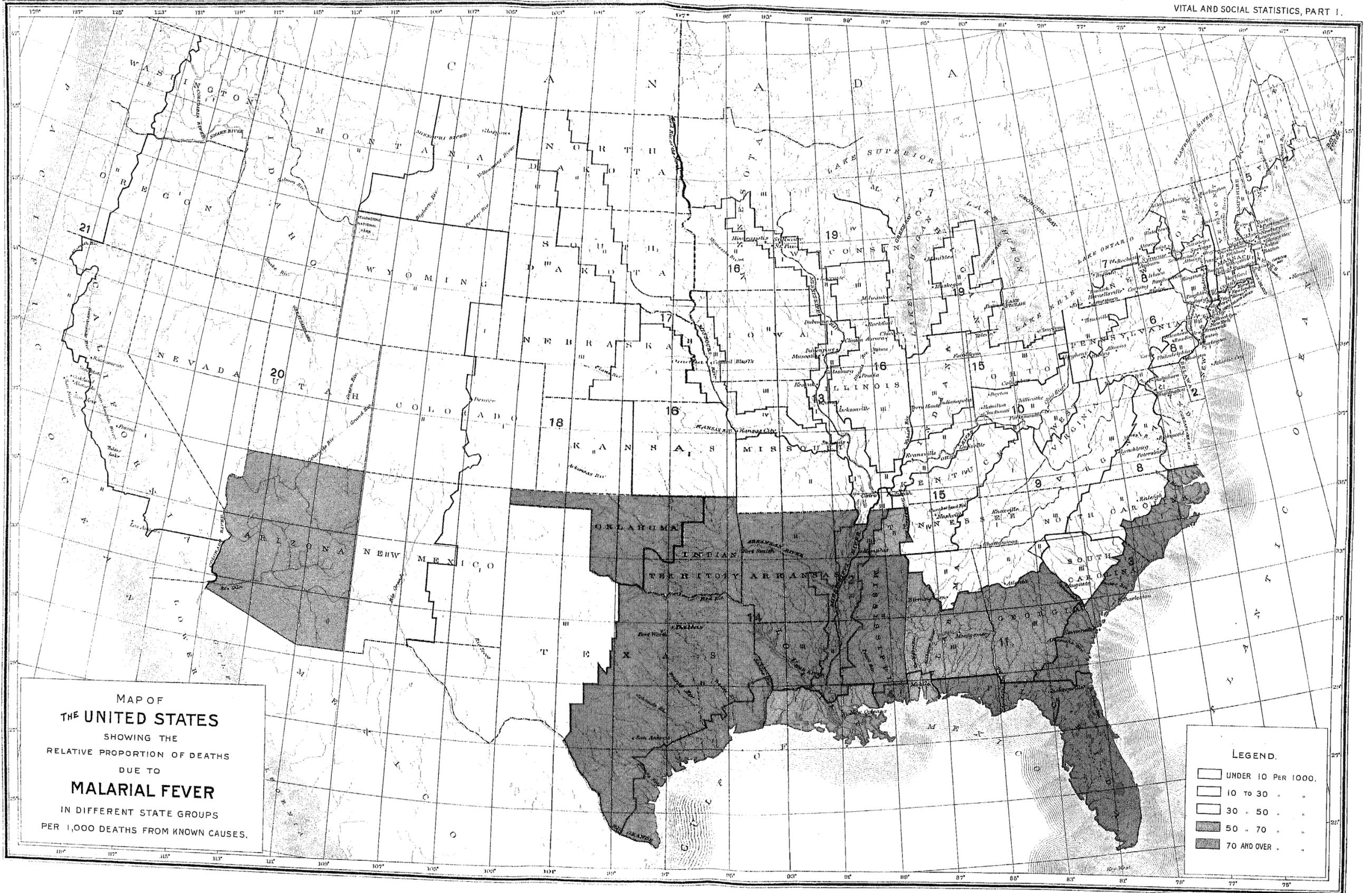
MONTHS.	NORTHERN REGION. GRAND GROUPS 1, 5, 7, 13, 17, AND 19.		MIDDLE REGION. GRAND GROUPS 2, 6, 8, 10, 15, 16, 18, 20, AND 21.		SOUTHERN REGION. GRAND GROUPS 3, 4, 9, 11, 12, AND 14.	
	Deaths.	Proportion.	Deaths.	Proportion.	Deaths.	Proportion.
June.....	134	61.30	406	73.10	701	67.35
July.....	163	74.57	493	88.76	1,064	102.22
August.....	261	119.40	707	127.30	1,400	143.15
September.....	341	155.09	788	141.88	1,557	149.58
October.....	277	126.72	656	118.11	1,222	117.40
November.....	173	79.14	427	76.88	728	69.94
December.....	149	68.16	350	63.02	571	54.86
January.....	128	58.55	335	60.32	523	50.24
February.....	107	48.95	277	49.87	516	49.57
March.....	126	57.64	321	57.80	507	48.47
April.....	146	66.79	354	63.74	615	59.08
May.....	181	82.80	440	79.22	855	82.14

The relative proportion of deaths in each month in the several divisions, as given in the table above, is shown graphically in the following diagram:



The preceding table and diagram indicate that in each division the greatest proportion of deaths in any single month from malarial fever occurred in the month of September, in which it ranged from 14 to 15 per cent, and the least in the month of February, in which it ranged from 4.4 to 5.2 per cent in the different grand groups.

Considering the supposed influence of high temperature on the development and production of the malarial poison, it is curious that the relative proportion of deaths from this disease in different months should be so nearly alike in the Northern, Middle, and Southern regions, as is indicated by the diagram.



## ERYSIPELAS.

The total number of deaths reported as due to erysipelas in the United States during the census year was 2,663, of which 1,402 were of males and 1,261 were of females. In the registration area the number of deaths reported as due to this disease was, males, 558; females, 507; total, 1,065; giving a death rate of 5.42 per 100,000 of population.

The following table shows, for the registration area and some of its subdivisions, the death rates from erysipelas during the census year in each of five age groups per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	UNDER 5 YEARS.			5 TO 15 YEARS.			15 TO 45 YEARS.			45 TO 65 YEARS.			65 YEARS AND OVER.		
	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.
Registration area .....	18.47	17.10	19.86	0.46	0.61	0.27	2.33	2.74	1.93	7.17	8.61	5.73	26.97	27.22	26.74
Cities.....	20.67	18.72	22.65	0.46	0.70	0.21	2.49	3.07	1.92	8.51	10.40	6.62	29.97	32.19	28.15
States.....	18.75	18.16	19.34	0.54	0.63	0.45	2.09	2.35	1.84	6.38	8.02	4.80	26.58	25.74	27.34
Cities.....	23.66	22.31	25.02	0.60	0.70	0.45	2.29	2.82	1.79	8.36	11.07	5.89	31.66	32.95	30.64
Rural.....	10.32	11.10	9.52	0.45	0.44	0.46	1.74	1.55	1.95	3.93	4.32	3.54	22.87	21.12	24.62
Cities in nonregistration states.....	18.98	15.65	20.58	0.33	0.66	.....	2.68	3.28	2.05	8.66	9.74	7.53	28.02	31.35	25.17
Cities of 100,000 population and up- ward.....	24.16	20.95	27.43	0.49	0.87	0.11	2.54	3.26	1.81	9.21	11.63	6.76	31.19	32.67	29.97
Metropolitan district.....	36.30	33.06	38.66	0.61	0.96	0.32	2.90	3.47	2.35	9.27	10.62	7.93	40.06	33.86	45.23

It will be seen from this table that the death rate from this disease per 100,000 of population was highest in those under 5 years of age (18.47) and in those 65 years of age and over (26.97). In those under 5 years of age the death rate was slightly higher in females (19.86) than in males (17.10). In the registration states it was much higher in the cities (23.66) than in the rural districts (10.32), and it was highest of all in the metropolitan district (36.30). In persons from 15 to 45 years of age the death rate was higher among males (2.74) than in females (1.93), and the same was the case for those between 45 and 65 years of age (males, 8.61; females, 5.73). For those 65 years of age and over the death rate from this disease in the registration states was higher in the cities (31.66) than it was in the rural districts (22.87), but this difference is not proportionally so great as it is for those under 5 years of age.

The following table shows, for each of the registration states and for their sum, the death rates from erysipelas during the census year, per 100,000 of population, with distinction of sex and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total .....	5.40	6.11	4.30	5.65	6.65	4.18	5.14	5.60	4.42
Connecticut.....	4.66	7.09	2.75	4.87	8.53	2.30	4.25	5.69	3.20
Delaware.....	2.97	1.63	3.74	3.51	3.25	3.65	2.41	.....	3.82
District of Columbia.....	3.04	3.04	.....	4.56	4.56	.....	1.66	1.66	.....
Massachusetts.....	4.24	3.97	5.15	4.50	4.83	3.47	4.00	3.16	6.79
New Hampshire.....	4.25	2.71	4.89	5.90	3.64	6.69	2.63	1.71	3.04
New Jersey.....	5.54	5.98	4.95	6.10	6.17	6.02	4.97	5.80	3.86
New York.....	6.12	7.58	3.75	6.28	7.82	3.87	5.96	7.35	3.03
Rhode Island.....	5.21	4.00	6.88	4.76	5.22	4.10	5.63	2.88	0.55
Vermont.....	5.72	3.53	5.92	4.13	7.38	3.85	7.36	.....	8.09

It will be seen from this table that the death rate from erysipelas was highest in New York (6.12), and lowest in Delaware (2.97).

VITAL AND SOCIAL STATISTICS.

The combined relations of age and race to the death rates from erysipelas are indicated in the following table showing the number of deaths among the whites in each of five age groups, and the death rates per 100,000 population of corresponding ages, with distinction of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New Jersey for the census year:

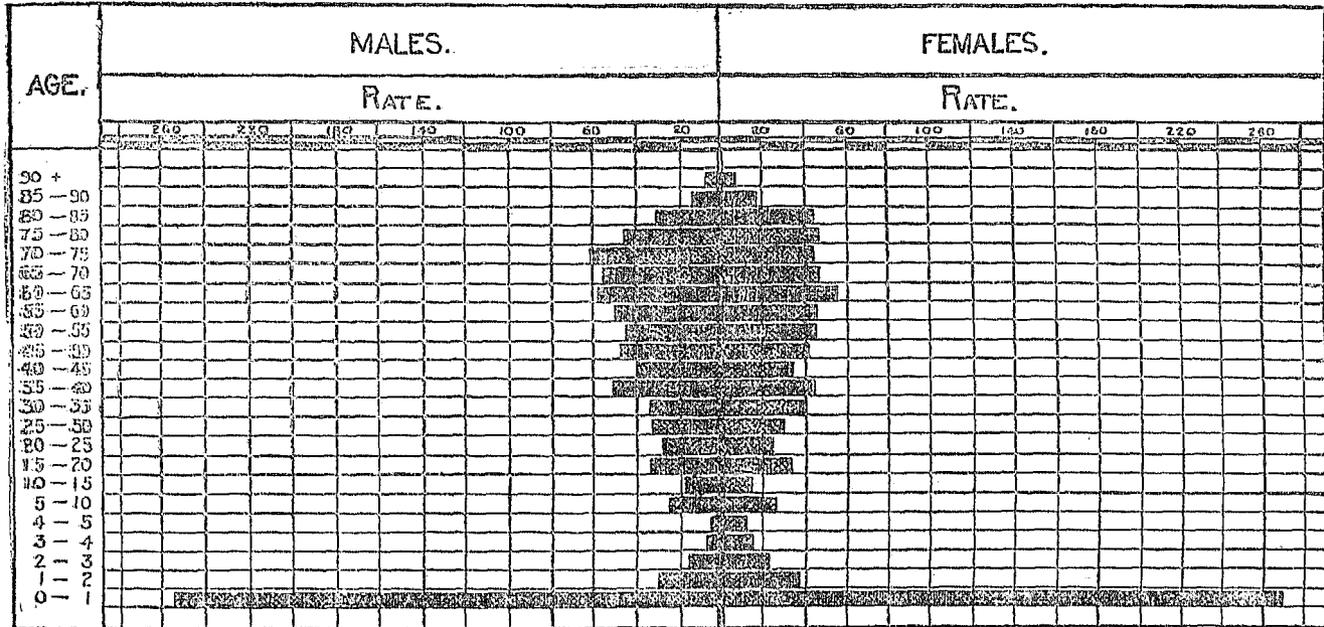
COLOR AND BIRTHPLACES OF MOTHERS.	UNDER 5 YEARS.		5 TO 15 YEARS.		15 TO 45 YEARS.		45 TO 65 YEARS.		65 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
White .....	152	31.34	7	0.81	67	2.80	58	8.88	60	38.55
Birthplaces of mothers (white):										
United States.....	55	22.27	4	0.98	8	1.04	9	4.01	20	20.00
Ireland .....	23	34.84	1	0.66	20	3.22	21	12.34	13	40.29
Germany .....	20	24.93	1	0.62	23	4.19	17	11.40	9	28.27
Italy.....	16	106.42			2	3.99				

The number of deaths from erysipelas which occurred among the colored was so small that the death rates derived from them have no scientific value, and the same is the case for the majority of the subdivisions by birthplaces of mothers. Of the 152 deaths under 5 years of age in this group 55 were children of mothers born in the United States, 23 children of mothers born in Ireland, 20 children of mothers born in Germany, and 16 children of mothers born in Italy. It will be seen that in this age group the death rate from this disease was highest of all among the children of mothers born in Italy (106.42), and next to those among the children of mothers born in Ireland (34.84), being lowest of all among the children of mothers born in the United States (22.27). For those 65 years of age and over the death rate was highest among the children of mothers born in Ireland (40.29), and lowest among the children of mothers born in Germany (28.27).

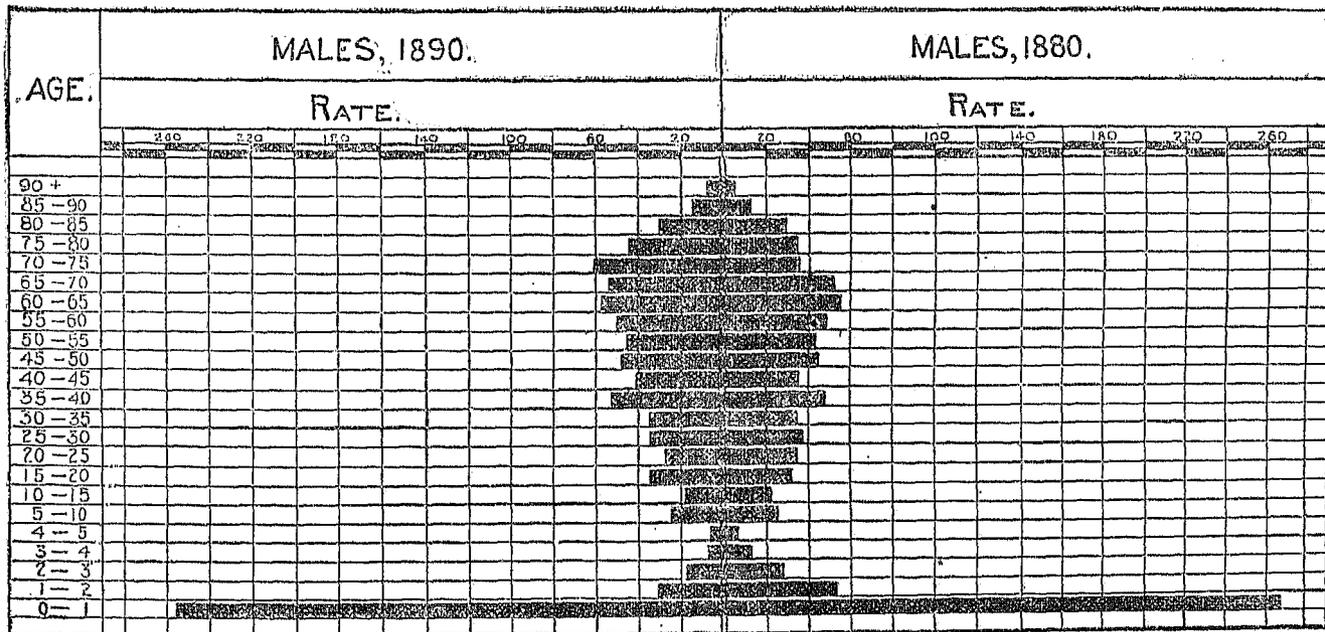
The following table shows the proportion of deaths due to erysipelas, at certain ages and groups of ages, per 1,000 deaths at all ages from this cause, in 1880 and in 1890, with distinction of sex:

AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Total under 5 years..	371.01	404.38	317.04	357.09	35 to 40 years.....	48.32	41.83	52.48	43.23
Under 1 year.....	268.17	316.24	255.03	269.82	40 to 45 years.....	35.90	47.31	40.98	35.23
1 year.....	53.19	43.33	30.01	38.43	45 to 50 years.....	43.44	32.87	48.17	41.63
2 years.....	29.26	23.41	17.25	22.42	50 to 55 years.....	42.55	37.35	44.57	44.04
3 years.....	12.85	12.45	7.01	15.21	55 to 60 years.....	48.76	37.35	50.32	44.84
4 years.....	7.54	8.00	5.03	11.21	60 to 65 years.....	55.85	38.84	58.23	56.85
5 to 10 years.....	24.82	34.86	24.44	26.42	65 to 70 years.....	50.98	40.84	53.92	47.24
10 to 15 years.....	20.83	22.41	19.41	14.41	70 to 75 years.....	36.35	38.35	60.39	43.23
15 to 20 years.....	31.91	27.39	35.23	36.83	75 to 80 years.....	35.46	33.86	44.57	47.24
20 to 25 years.....	33.69	44.82	28.04	24.02	80 to 85 years.....	30.14	23.41	30.10	43.23
25 to 30 years.....	38.12	36.86	34.51	28.82	85 to 90 years.....	13.30	12.95	15.82	18.41
30 to 35 years.....	34.13	33.37	34.51	40.03	90 to 95 years.....	2.22	6.97	2.88	4.00
					95 years and over.....	2.22	3.98	4.31	3.20

The comparative proportions of deaths of males and females in each age group due to erysipelas during the census year are shown in the following diagram:



The comparative proportions of deaths of males in each age group due to erysipelas, in 1880 and in 1890, are shown in the following diagram:



It will be seen from the preceding table and diagrams that about one-third of the deaths from erysipelas occurred among children under 5 years of age.

## VITAL AND SOCIAL STATISTICS.

The following table shows, for each grand group, the proportion of deaths due to erysipelas, during the census year per 1,000 deaths from known causes, with distinction of sex and of rural districts and cities:

GRAND GROUPS.	Total.	RURAL.		CITIES.	
		Males.	Females.	Males.	Females.
1. North Atlantic Coast region .....	2.31	2.10	3.41	2.49	1.69
2. Middle Atlantic Coast region .....	2.77	2.64	1.47	2.80	3.07
3. South Atlantic Coast region .....	2.28	2.08	2.96	1.62	1.69
4. Gulf Coast region .....	2.53	3.25	2.74	1.93	2.03
5. Northeastern hills and plateaus .....	2.42	2.42	2.94	2.18	1.63
6. Central Appalachian region .....	3.07	2.70	3.36	2.45	3.96
7. Region of the Great Northern Lakes .....	2.49	2.92	3.22	2.18	2.26
8. Interior plateau .....	2.64	2.84	3.06	2.19	2.53
9. Southern Central Appalachian region .....	3.88	4.64	3.57	0.89	3.14
10. Ohio River belt .....	3.88	4.65	3.99	2.74	3.30
11. Southern Interior plateau .....	3.08	3.39	2.87	1.55	1.36
12. South Mississippi River belt .....	2.26	2.47	1.88	3.34	1.59
13. North Mississippi River belt .....	3.55	3.84	3.19	4.00	3.01
14. Southwest Central region .....	5.63	5.20	6.28	3.60	5.43
15. Central region, plains and prairies .....	4.30	4.00	4.73	3.31	3.75
16. Prairie region .....	3.60	3.84	3.86	3.54	1.04
17. Missouri River belt .....	3.41	4.16	2.77	3.15	3.21
18. Region of the Western plains .....	3.97	3.61	3.19	6.65	3.78
19. Heavily timbered region of the Northwest .....	3.33	2.95	3.76	.....	.....
20. Cordilleran region .....	2.84	2.30	2.90	10.50	7.72
21. Pacific Coast region .....	2.07	3.21	1.73	1.80	1.35

This table indicates that the proportion of deaths due to erysipelas was greater in the Western part of the United States, and particularly in the Southwest Central region and on the Western plains, than in the Eastern part of the country.

## VENEREAL DISEASES.

The total number of deaths reported as due to venereal diseases in the United States during the census year was 1,619, of which 949 were of males and 670 of females. In 1880 the number thus reported was 1,217.

In the registration area in 1890 the number of deaths reported as due to these diseases was, males, 437; females, 345; total, 782, giving a death rate of 3.98 per 100,000 of population.

The following table shows, for the registration area and some of its subdivisions, the death rates from venereal diseases during the census year in each of two age groups per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	15 TO 45 YEARS.			45 YEARS AND OVER.		
	Total.	Males.	Females.	Total.	Males.	Females.
Registration area .....	2.40	2.52	2.28	2.41	3.33	1.47
Cities .....	2.84	3.09	2.60	3.15	4.52	1.85
States .....	1.62	1.56	1.68	1.80	2.46	1.17
Cities .....	2.10	2.23	1.99	2.09	3.86	1.61
Rural .....	0.78	0.46	1.11	0.83	1.01	0.66
Cities in nonregistration states .....	3.52	3.86	3.18	3.65	5.17	2.11
Cities of 100,000 population and upward .....	3.08	3.40	2.66	3.58	4.79	2.40
Metropolitan district .....	3.35	3.71	3.02	3.27	4.81	1.78

It will be seen from this table that in the age group 15 to 45 the death rate from venereal diseases was slightly higher among males (2.52) than it was among females (2.28); that it was decidedly higher in the cities than in the rural districts, and that it was highest of all in the cities of the nonregistration states. In the rural districts of the registration states it was higher among females (1.11) than it was among males (0.46).

In the age group 45 years of age and over, it was more than twice as high among males (3.38) as among females (1.47); and among males it was much higher in the cities of the registration states (3.86) than in the rural districts of the same states (1.01).

The combined relations of age and race to the death rates from venereal diseases are indicated in the following table showing the number of deaths in each of two age groups, and the death rates per 100,000 population of corresponding ages, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New Jersey for the census year:

COLOR AND BIRTHPLACES OF MOTHERS.	15 TO 45 YEARS.		45 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.
White .....	61	2.55	23	2.84
Colored .....	12	11.63	4	14.09
Birthplaces of mothers (white):				
United States.....	13	1.70	1	0.34
Ireland.....	26	4.19	8	3.95
Germany.....	6	1.09	7	3.87

It will be seen from this table that the death rate from these diseases was much higher among the colored than among the whites in each age group, and that among the whites it was highest in the children of mothers born in Ireland. In the age group 15 to 45 years, it was higher in the children of mothers born in the United States (1.70) than in the children of mothers born in Germany (1.09); while in the age group 45 years of age and over, it was very much higher in the children of mothers born in Germany (3.87) than in the children of mothers born in the United States (0.34).

The remarks made in connection with death rates from alcoholism apply with even greater force to death rates from venereal diseases, the majority of reports of deaths due to these causes coming from hospitals.

The following table shows the proportion of deaths due to venereal diseases, at certain ages and groups of ages, per 1,000 deaths at all ages from these causes, in 1880 and in 1890, with distinction of sex:

AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Total under 5 years..	429.01	478.42	869.05	410.61	35 to 40 years.....	75.62	64.75	75.19	77.27
Under 1 year.....	334.88	366.91	314.72	350.00	40 to 45 years.....	52.47	43.17	68.74	74.24
1 year.....	58.64	61.15	25.78	40.91	45 to 50 years.....	61.73	35.97	63.37	40.91
2 years.....	20.23	16.19	11.82	10.61	50 to 55 years.....	57.10	35.97	46.19	28.79
3 years.....	7.72	23.38	6.44	9.09	55 to 60 years.....	29.32	16.10	35.45	13.64
4 years.....	1.54	10.70	4.30	.....	60 to 65 years.....	23.15	30.58	20.00	12.12
5 to 10 years.....	12.35	10.70	10.74	21.21	65 to 70 years.....	29.32	7.19	35.45	12.12
10 to 15 years.....	6.17	3.60	5.97	6.06	70 to 75 years.....	18.52	8.99	20.41	4.55
15 to 20 years.....	15.43	41.37	19.33	51.52	75 to 80 years.....	7.72	7.19	13.96	4.55
20 to 25 years.....	67.90	71.94	50.48	81.62	80 to 85 years.....	1.54	3.60	4.30	1.52
25 to 30 years.....	47.84	70.14	76.26	81.82	85 to 90 years.....	.....	.....	.....	1.52
30 to 35 years.....	63.27	66.55	81.63	75.70	90 to 95 years.....	1.54	1.80	1.07	.....
					95 years and over.....	.....	1.80	.....	.....

It will be seen from this table that about one-third of all the deaths reported as due to these diseases occur in infants under 1 year of age, being cases of congenital syphilis: that in 1890, for those above 5 years of age, the greatest proportion of deaths due to these diseases occurred among males in the age group 30 to 35 years, and among females in the age group 20 to 30 years.

## ALCOHOLISM.

The total number of deaths reported as due to alcoholism in the United States during the year ending May 31, 1890, was 2,657, of which 2,254 were of males, and 403 of females. In 1880 the number thus reported was 1,592.

In the registration area the number of deaths reported as due to this cause was, males, 1,245; females, 342; total, 1,578, giving a death rate of 8.07 per 100,000 of population.

The following table shows, for the registration area and some of its subdivisions, the death rates from alcoholism during the census year in each of two age groups per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	15 TO 45 YEARS.			45 YEARS AND OVER.		
	Total.	Males.	Females.	Total.	Males.	Females.
Registration area.....	9.10	13.78	4.45	17.22	28.92	5.00
Cities.....	10.68	16.10	5.34	21.72	36.13	7.04
States.....	9.80	14.89	4.87	14.35	24.39	4.83
Cities.....	13.52	20.51	6.94	20.49	34.45	7.77
Rural.....	3.31	5.46	1.11	7.68	13.92	1.50
Cities in nonregistration states.....	8.08	13.23	3.82	23.03	37.82	8.13
Cities of 100,000 population and upward.....	12.91	19.36	6.43	26.37	43.33	9.84
Metropolitan district.....	16.77	26.40	7.49	26.00	46.61	7.86

It will be seen from this table that the death rate from alcoholism was much higher among those 45 years of age and over (17.22) than it was among those from 15 to 45 years of age (9.10); that in the age group from 15 to 45, it was a little over three times as high among males (13.78) as among females (4.45); that among males it was much higher in the cities of the registration states (20.51) than it was in the rural districts of the same states (5.46); and that it was highest of all among males in the metropolitan district (26.40), and was lowest of all among females in the rural districts of the registration states (1.11).

The same general relations exist between the death rates in different areas and of different classes in those 45 years of age and over, the highest death rate in this age group being in males in the metropolitan district (46.61), and the lowest in females in the rural districts of the registration states (1.50).

The following table shows, for each grand group, the proportion of deaths due to alcoholism during the census year per 1,000 deaths from known causes, with distinction of sex and of rural districts and cities:

GRAND GROUP.	Total.	RURAL.		CITIES.	
		Males.	Females.	Males.	Females.
1. North Atlantic Coast region.....	3.89	4.38	0.00	6.21	2.74
2. Middle Atlantic Coast region.....	4.56	4.01	0.55	7.47	2.31
3. South Atlantic Coast region.....	1.82	2.70	.....	5.30	0.56
4. Gulf Coast region.....	4.23	7.84	0.23	4.72	3.30
5. Northeastern hills and plateaus.....	2.72	3.63	0.51	4.75	3.26
6. Central Appalachian region.....	2.09	3.52	0.32	4.09	0.30
7. Region of the Great Northern Lakes.....	3.53	5.52	0.38	5.71	1.36
8. Interior plateau.....	2.88	4.14	0.31	5.24	1.41
9. Southern Central Appalachian region.....	1.31	2.06	0.12	4.91	0.52
10. Ohio River belt.....	2.98	4.33	0.35	5.92	1.69
11. Southern Interior plateau.....	1.85	3.67	0.10	.....	1.36
12. South Mississippi River belt.....	2.53	3.99	0.47	5.57	.....
13. North Mississippi River belt.....	2.82	3.40	0.53	4.12	3.01
14. Southwest Central region.....	1.83	3.01	0.05	8.05	2.17
15. Central region, plains, and prairies.....	2.19	4.09	0.22	3.31	0.68
16. Prairie region.....	2.00	3.66	0.20	1.77	.....
17. Missouri River belt.....	3.25	3.73	0.75	8.54	1.07
18. Region of the Western plains.....	4.17	4.38	.....	12.63	3.78
19. Heavily timbered region of the Northwest.....	1.76	2.95	0.40	.....	.....
20. Cordilleran region.....	9.72	14.02	2.32	21.00	3.86
21. Pacific Coast region.....	7.94	15.12	1.04	7.95	4.85

The ratios given in this table are of little value, partly because, as explained above, the greater number of deaths due to alcoholism are not reported, and partly because the proportion of deaths due to this cause depends to a considerable extent on the number of adult males in a given locality.

This table indicates that the proportion of deaths due to this cause in the rural districts was comparatively large on the Pacific coast, in the Cordilleran region, and on the Gulf coast, and was comparatively small in the Appalachian region.

The following table shows, for the registration area and some of its subdivisions, the death rates from alcoholism during the census year per 100,000 of population, with distinction of color and sex:

AREAS.	AGGREGATE.			WHITE.			COLORED.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
Registration area.....	8.07	12.70	3.47	8.13	12.87	3.41	6.91	9.36	4.54
Cities.....	9.48	14.78	4.25	9.64	15.11	4.24	6.87	9.36	4.49
States.....	8.05	12.70	3.51	8.11	12.83	3.51	5.51	7.50	3.53
Cities.....	10.97	17.10	5.14	11.14	17.37	5.20	4.74	6.09	2.90
Rural.....	3.59	6.20	0.94	3.53	6.14	0.87	7.30	9.40	5.05
Cities in nonregistration states.....	8.10	12.70	3.40	8.16	12.95	3.25	7.47	10.07	4.92

This table indicates that the death rate from alcoholism was higher among the whites (8.13) than among the colored (6.91). It was highest of all among the white males in the cities in the registration states (17.37), and lowest of all among the white females in the rural districts of the registration states (0.87).

The following table shows, for each of the registration states and for their sum, the death rates from alcoholism during the census year per 100,000 of population, with distinction of sex, and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total.....	8.05	10.97	3.59	12.70	17.10	6.20	3.51	5.14	0.94
Connecticut.....	11.12	17.08	6.88	15.97	21.07	11.07	6.37	12.65	1.83
Delaware.....	2.37	1.63	2.80	2.34	.....	3.65	2.41	3.27	1.91
District of Columbia.....	12.59	12.59	.....	19.16	19.16	.....	6.62	6.62	.....
Massachusetts.....	7.28	7.93	5.15	10.76	11.23	9.26	4.00	4.85	1.13
New Hampshire.....	3.72	5.48	3.01	5.00	5.76	5.95	1.58	5.14	.....
New Jersey.....	6.44	8.43	3.83	10.82	14.07	6.65	2.07	2.99	0.97
New York.....	8.82	12.08	2.57	14.23	20.55	4.48	3.44	5.13	0.62
Rhode Island.....	10.42	11.50	8.94	16.66	18.77	13.86	4.51	4.80	4.09
Vermont.....	1.80	3.53	1.04	2.95	7.38	2.57	0.61	.....	0.67

It will be seen from this table that the death rate from alcoholism was highest in the District of Columbia (12.59), in Connecticut (11.12), and in Rhode Island (10.42); and lowest in Vermont (1.80), in Delaware (2.37), and in New Hampshire (3.72).

The combined relations of age and race to the death rates from alcoholism are indicated in the following table showing the number of deaths in each of two age groups, and the death rates per 100,000 population of corresponding ages, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New Jersey for the census year:

COLOR AND BIRTHPLACES OF MOTHERS.	15 TO 45 YEARS.		45 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.
White.....	336	16.12	207	25.60
Colored.....	7	6.78	2	7.04
Birthplaces of mothers (white):				
United States.....	46	6.00	31	10.57
England and Wales.....	16	13.83	9	19.19
Ireland.....	204	32.87	87	42.97
Scotland.....	9	23.89	11	76.56
Germany.....	62	9.48	33	18.23

## VITAL AND SOCIAL STATISTICS.

It will be seen from the preceding table that the death rate from alcoholism was much higher among the whites than among the colored in each age group. In the age group 15 to 45, among the whites, it was highest in the children of mothers born in Ireland (32.87), and lowest in the children of mothers born in the United States (6.00).

In the age group 45 years of age and over, it was highest in the children of mothers born in Scotland (76.56) and in the children of mothers born in Ireland (42.97), and lowest in the children of mothers born in the United States (10.57) and in Germany (18.23).

The following table shows the death rate from alcoholism per 100,000 of population in the registration states during the census year, with distinction of conjugal condition, sex, color, and general nativity:

CONJUGAL CONDI- TION.	Aggregate.		COLOR AND NATIVITY.							
			White.						Colored.	
	Total.		Native born.		Foreign born.					
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Single .....	8.61	1.10	8.73	1.09	6.43	0.61	19.00	3.12	3.76	1.34
Married .....	14.27	5.14	14.35	5.16	10.67	3.83	19.10	7.19	10.44	4.22
Widowed .....	47.87	8.79	47.84	8.90	31.99	3.01	66.08	16.02	48.92	5.78

This table indicates that the death rate from alcoholism was much higher among the widowed than among the married, and decidedly higher among the married than among the single, especially among females, but the greater part, if not all, of this difference is due to the relative proportion of persons of advanced age in the different classes.

The following table shows, for the registration area and some of its subdivisions, the proportion of deaths due to alcoholism during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of color, sex, general nativity, and parental nativity.

AREAS.	Aggregate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
Registration area .....	4.16	4.30	6.43	1.92	2.75	1.84	3.17	7.90	2.40	3.09	1.66
Cities .....	4.56	4.77	7.00	2.25	3.03	2.00	3.27	8.30	2.30	2.96	1.59
States .....	4.18	4.25	6.40	1.94	2.86	1.97	3.58	7.76	2.03	2.65	1.39
Cities .....	4.98	5.12	7.47	2.50	3.47	2.20	3.79	8.42	1.51	1.98	1.03
Rural .....	2.39	2.35	4.01	0.59	1.74	1.59	2.41	4.09	4.20	5.35	2.93
Cities in nonregistration states .....	4.13	4.37	6.48	1.88	2.55	0.98	1.32	8.14	2.53	3.25	1.76

This table indicates that in the registration area the proportion of deaths due to alcoholism to the total number of deaths from known causes was much greater among the white (4.30) than among the colored (2.40), and also much greater among the males (white, 6.43; colored, 3.09); than among the females (white, 1.92; colored, 1.66). Among the whites it was much greater among the foreign born (7.90) than among the natives (2.75), which is in part due to the different age distribution of the two groups of population. In the registration states it was decidedly greater in the cities (4.98) than in the rural districts (2.39). It was greatest of all among the foreign born whites in the cities in the registration states (8.42).

The data with regard to alcoholism as a cause of death are too defective and inaccurate to warrant any definite conclusions, but the above tables indicate that it caused a much higher death rate in the cities than it did in rural districts; in the large cities than in the smaller ones; in the whites than in the colored; and in persons whose mothers were born in Ireland than in persons whose mothers were born in Germany or in the United States. It must be remembered, however, that it is only from hospitals that even approximately correct reports are made with regard to persons dying from the effects of alcohol, and that the hospitals are for the most part confined to large cities.

## CAUSES OF DEATH.

309

The following table shows the proportion of deaths due to alcoholism at certain ages and groups of ages, per 100 deaths at all ages, from this cause, in 1880 and in 1890, with distinction of sex:

AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Under 5 years .....	0.75	7.91	3.62	5.03	50 to 55 years.....	112.28	98.81	116.74	80.40
5 to 10 years.....	3.01	7.91	3.62	5.03	55 to 60 years.....	80.63	51.38	80.09	57.79
10 to 15 years.....	3.01	3.95	3.17	.....	60 to 65 years.....	81.30	55.34	72.40	45.23
15 to 20 years.....	6.78	7.91	2.26	10.05	65 to 70 years.....	50.49	19.76	44.80	27.64
20 to 25 years.....	30.90	51.38	26.24	57.79	70 to 75 years.....	23.64	19.76	27.00	15.08
25 to 30 years.....	65.56	110.07	78.73	115.58	75 to 80 years.....	13.56	27.07	10.41	5.03
30 to 35 years.....	103.24	114.02	113.12	145.73	80 to 85 years.....	6.03	7.91	4.08	2.51
35 to 40 years.....	154.48	146.25	132.58	153.27	85 to 90 years.....	0.75	.....	2.26	.....
40 to 45 years.....	134.89	106.72	142.53	160.80	90 to 95 years.....	1.51	.....	.....	.....
45 to 50 years.....	122.08	102.06	134.84	113.07	95 years and over.....	.....	.....	.....	.....

It will be seen from this table that in each sex in 1890 the greatest proportion of deaths due to alcoholism among those from 40 to 45 years of age. In 1880 the greatest proportion occurred among those from 20 to 25 years of age.

### OLD AGE.

The total number of deaths reported as due to old age in the United States during the census year was 10,286, of which 7,366 were of males and 2,920 were of females. In the registration area the number of deaths as due to this cause was, males, 3,683; females, 5,140; total, 8,823, giving a death rate per 100,000 of population of 44.88. In England and Wales the corresponding death rate in 1890 was 97.70.

The phrase "death from old age" refers to deaths in persons 60 years of age and over, reported as due to old age, i. e., to no definite disease or accident, and therefore the so-called death rates to be arrived at are for the registration area, or group, proportionate to the number of persons 60 years of age and over living in the locality, and will account for the greater part of all the differences to be noted.

The following table shows, for the registration area and some of its subdivisions, the death rates from old age per 100,000 of population, with distinction of color, sex, general nativity, and age at death:

AREAS.	Aggre- gate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
Registration area .....	44.88	44.03	38.01	51.82	33.71	60.05	6.71	75.82	43.88	28.94	58.34
.....	37.32	66.95	29.54	44.28	21.62	43.25	5.53	71.78	43.41	28.08	57.92
.....	52.62	52.38	45.51	69.11	43.70	66.54	0.77	77.47	36.75	21.20	48.62
.....	40.96	41.23	33.25	48.84	27.25	50.40	5.10	70.40	31.06	17.83	42.89
.....	68.92	69.26	63.48	75.13	63.63	78.83	11.28	99.74	49.01	37.61	63.12
Registration states.....	33.97	32.74	26.02	30.63	16.79	27.68	6.51	73.34	46.72	30.60	62.28
100 population and upward.....	32.47	32.18	.....	.....	15.95	31.01	4.69	65.12	38.23	.....	.....
Rural district, 6 years.....	26.17	26.01	18.60	33.26	14.10	30.78	3.25	45.99	35.18	32.32	37.93

It will be seen from this table that the death rate from old age was slightly higher among the whites (44.93) than among the colored (43.88); that it was much higher among females (white, 51.82; colored, 58.34) than it was among males (white, 38.01; colored, 28.94); and that it was much higher among the foreign born whites (75.82) than among the native born whites (33.71), which is due mainly to the much larger proportion of persons over 60 years of age in the latter group, which also accounts for the fact that the death rate from this cause among the foreign born whites having both parents native born (60.05) was nearly ten times as high as it was among native born whites (6.71) whose one or both of whose parents were foreign born. In the registration states the death rate from old age was much higher in the rural districts (68.92) than it was in the cities (40.96), and it was lowest in the rural district for the 6-year period (26.17).

## VITAL AND SOCIAL STATISTICS.

The following table shows, for each of the registration states and for their sum, the death rates from old age during the census year per 100,000 of population, with distinction of sex and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total .....	52.02	40.96	68.92	45.03	32.86	63.02	58.86	48.68	74.92
Connecticut.....	78.53	66.06	87.40	63.86	55.16	69.90	92.91	76.55	104.73
Delaware.....	24.93	3.26	37.36	18.70	3.25	27.39	31.96	3.27	47.80
District of Columbia.....	16.49	16.49	.....	13.69	13.69	.....	19.04	19.04	.....
Massachusetts.....	57.85	50.27	80.51	46.98	40.43	67.01	67.15	59.46	92.84
New Hampshire.....	93.75	60.63	107.51	85.76	53.72	98.18	101.60	66.89	117.04
New Jersey.....	30.80	24.67	38.81	26.64	20.23	34.89	34.94	29.02	42.83
New York.....	48.72	38.67	64.95	43.07	31.07	64.13	53.30	45.97	65.80
Rhode Island.....	62.81	55.98	72.19	46.42	34.42	62.37	78.32	75.82	81.87
Vermont.....	88.44	70.68	90.09	75.59	66.44	76.39	101.78	74.58	104.49

It will be seen from this table that the death rate from old age was highest in New Hampshire (93.75) and in Vermont (88.44), and lowest in the District of Columbia (16.49) and in Delaware (24.93); that it was much higher in the rural districts (68.92) than in the cities (40.96); and in the rural districts it was highest in New Hampshire (107.51), and lowest in Delaware (37.36). It was higher among females (58.86) than among males (45.03), and this excess occurred in every state. It was higher among the whites (52.38) than it was among the colored (36.75). The number of deaths attributed to this cause in New Hampshire and Vermont among the colored was so small that the rates derived therefrom have no value.

Of 7,130 deaths reported as due to old age among whites in the registration area during the census year, 2,488 were children of mothers born in the United States, 1,578 children of mothers born in Ireland, 695 children of mothers born in Germany, 290 children of mothers born in England and Wales, 162 children of mothers born in Canada, 114 children of mothers born in Scotland, 37 children of mothers born in France, and 21 children of mothers born in Scandinavia.

The following table shows, for the registration area and some of its subdivisions, the death rates from old age among the whites during the census year per 100,000 of white population, with distinction of birthplaces of mothers:

AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.
Registration area .....	35.87	41.53	59.33	55.93	45.13	32.70	24.08	8.61
Cities.....	26.39	36.88	57.87	51.46	47.67	31.24	18.57	7.24
States.....	40.80	42.06	58.22	59.07	43.41	29.00	24.54	11.39
Cities.....	32.90	35.99	56.11	54.45	46.60	25.67	18.21	9.26
Rural.....	47.33	54.58	64.82	70.29	35.67	43.35	34.61	16.41
Cities in nonregistration states .....	12.22	39.33	66.55	42.19	40.20	39.32	20.35	5.79
Cities of 100,000 population and upward ..	23.17	37.51	53.23	47.44	49.28	29.81	12.09	8.15

It will be seen from this table that the death rate from old age in the registration area was highest in the children of mothers born in Ireland (59.33), in Scotland (55.93), and in France (45.13); and was lowest in the children of mothers born in Scandinavia (8.61), in Canada (24.08), and in Germany (32.70). In the rural districts of the registration states it was highest in the children of mothers born in Scotland (70.29), and was higher in the children of mothers born in the United States (47.33) than it was in the children of mothers born in Germany (43.35).

## CAUSES OF DEATH.

311

The following table shows, for the registration area and some of its subdivisions, the death rates from old age among the census year per 100,000 of population 60 years of age and over, with distinction of sex:

AREAS.	60 YEARS AND OVER.		
	Total.	Males.	Females.
Registration area.....	645.28	563.89	719.63
Cities.....	668.60	568.08	754.71
States.....	636.07	567.77	698.87
Cities.....	669.23	581.15	741.48
Rural.....	608.69	557.86	660.03
Cities in nonregistration states.....	667.91	554.27	770.03
Cities of 100,000 population and upward.....	633.97	517.60	734.04
Metropolitan district.....	587.80	481.85	678.33

It will be seen from this table that the death rate from old age was much higher among females (719.63) than among males (563.89), and that in the registration states it was higher in the cities (669.23) than it was in the rural districts (608.69), and it was lowest of all among males in the metropolitan district (481.85).

The combined relations of age and race to the death rates from old age are indicated in the following table giving the number of deaths and the death rates per 100,000 of population 60 years of age and over, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New York, for the census year:

COLOR AND BIRTHPLACES OF MOTHERS.	60 YEARS AND OVER.	
	Deaths.	Rate.
White.....	1,449	545.59
Colored.....	56	668.90
Birthplaces of mothers (white):		
United States.....	440	408.66
England and Wales.....	80	514.73
Ireland.....	509	842.55
Scotland.....	30	636.00
France.....	14	580.91
Germany.....	217	372.89

This table indicates that the death rate from old age was higher among the colored (668.90) than among the whites (545.59), and that among the whites it was more than twice as high among the children of mothers born in England and Wales (842.55) as among the children of mothers born in the United States (408.66).

For further details with regard to death rates from old age in large cities see Part II of this report, page 137. Out of each 100,000 deaths from all causes in the United States during the census year, 1,894.99 were attributed as due to old age, the corresponding figure in 1880 having been 1,872, and, in 1870, 1,621. In England and Wales the corresponding proportion in 1890 was 4,998.20.

## VITAL AND SOCIAL STATISTICS.

The following table shows, for the United States and for the registration area and some of its subdivisions,<sup>1</sup> the proportion of deaths due to old age during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of color, sex, general nativity, and parental nativity:

AREAS.	Aggregate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
The United States.....	20.56	20.98	17.70	24.70	15.60	21.14	5.23	41.63	17.62	14.29	21.08
Registration area.....	23.13	23.75	18.99	29.00	17.91	35.21	3.15	39.50	15.24	9.54	21.35
Cities.....	17.97	18.29	13.69	23.40	10.69	22.98	2.38	36.41	14.50	8.90	20.52
States.....	27.01	27.46	22.72	32.50	23.16	38.77	3.12	39.39	13.55	8.47	18.89
Cities.....	13.60	18.94	14.30	24.00	12.26	25.38	2.07	33.85	9.92	5.28	14.73
Rural.....	45.80	46.15	41.44	51.15	43.00	52.26	8.10	61.86	28.67	21.33	36.76
Cities in nonregistration states.....	17.32	17.54	13.02	22.88	8.96	16.75	3.26	39.67	15.85	9.93	22.27
Cities of 100,000 population and upward.....	15.69	15.23	.....	.....	7.40	14.28	1.96	32.44	12.46	.....	.....
Metropolitan district, 6 years.....	10.50	10.45	0.97	14.37	5.25	11.30	1.22	21.25	13.04	11.08	15.25

This table indicates that the proportion of deaths due to old age was somewhat greater in the registration area (23.13) than it was in the United States (20.56); that in the United States it was greater among the whites (20.98) than among the colored (17.62); and greater among females (white, 24.70; colored, 21.08) than among males (white, 17.70; colored, 14.29). In the metropolitan district for the 6-year period it was only 10.50.

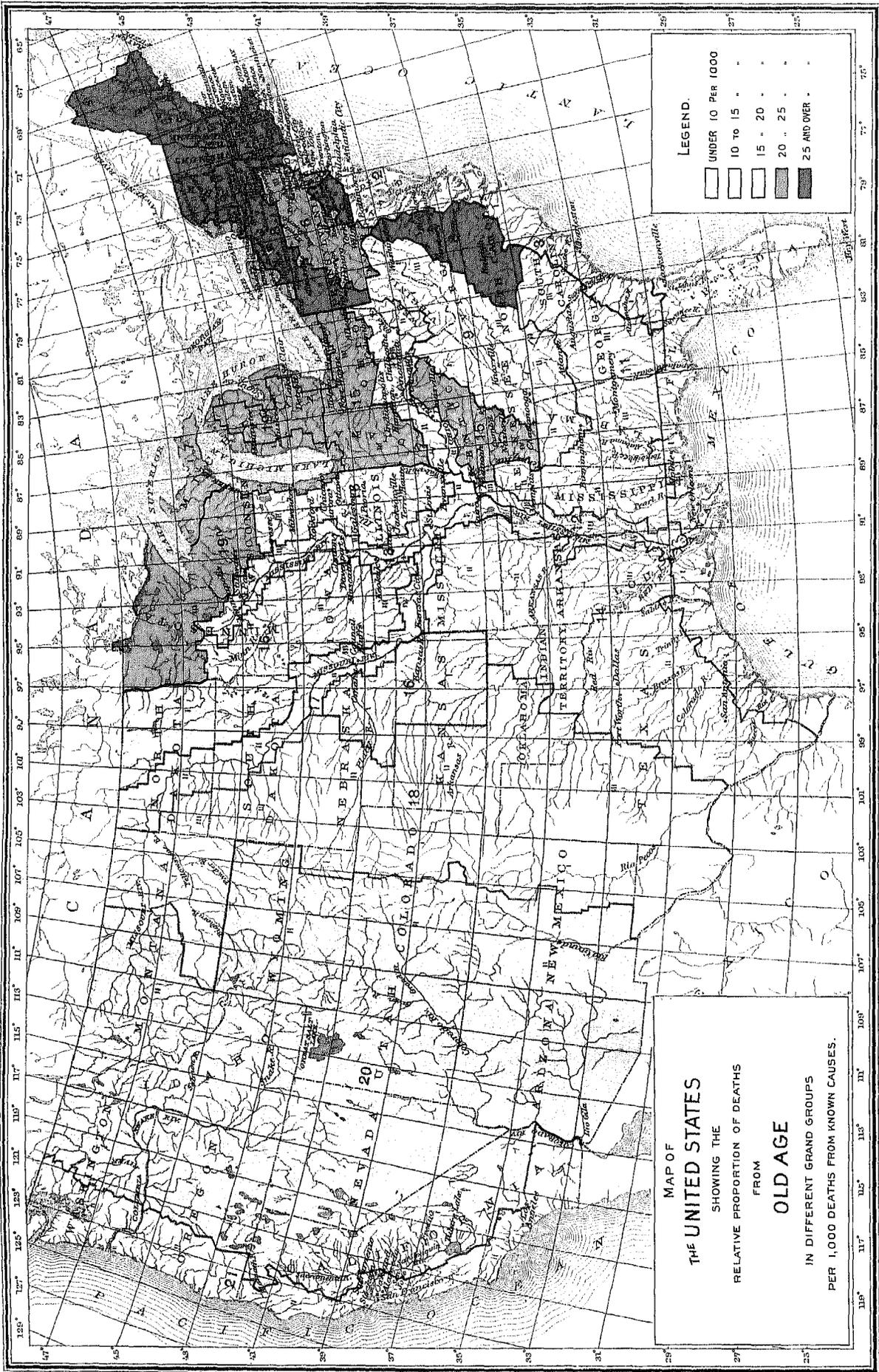
The following table shows, for the United States and for the registration area and some of its subdivisions, the proportion of deaths due to old age among the whites during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of birthplaces of mothers:

AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
The United States.....	16.78	27.94	30.55	35.04	31.50	23.77	14.43	15.88	3.58	18.15	2.81	15.12
Registration area.....	26.29	25.24	28.13	31.61	27.76	19.20	14.94	5.52	2.80	9.13	1.60	10.32
Cities.....	16.01	21.26	25.50	30.25	28.03	17.68	10.18	4.48	2.99	0.27	1.78	9.35
States.....	28.20	24.95	26.82	34.64	25.72	16.10	14.06	6.66	1.78	6.42	0.62	9.59
Cities.....	18.02	19.69	23.23	29.37	25.50	13.38	9.51	4.85	1.93	6.65	0.60	7.95
Rural.....	41.97	30.17	45.63	52.31	26.43	34.95	28.76	13.10	.....	.....	.....	25.24
Cities in nonregistration states.....	12.42	26.60	39.65	34.41	33.24	25.43	14.76	4.12	0.58	11.15	12.74	11.62
Cities of 100,000 population and upward.....	11.76	20.91	20.70	25.00	26.99	16.01	5.77	4.67	3.57	0.40	1.70	8.28

This table indicates that in the United States as a whole, as well as in the registration area, the greatest proportion of deaths due to old age occurred in the children of mothers born in Scotland, and the least in the children of mothers born in Italy.

The following table shows the proportion of deaths due to old age, at certain ages and groups of ages, per 1,000 deaths at all ages from this cause, in 1880 and in 1890, with distinction of sex:

AGES.	1880		1890	
	Males.	Females.	Males.	Females.
60 to 65 years.....	12.18	12.65	14.66	16.07
65 to 70 years.....	22.06	28.19	31.65	35.87
70 to 75 years.....	101.58	101.80	109.89	112.07
75 to 80 years.....	136.53	171.91	180.32	169.82
80 to 85 years.....	299.97	280.31	287.34	269.11
85 to 90 years.....	206.45	194.74	216.22	206.45
90 to 95 years.....	103.23	119.51	110.30	121.82
95 years and over.....	67.99	90.69	49.60	67.80



It will be seen from the preceding table that in both censuses and each sex the greatest proportion of deaths due to this cause occurred among persons between 80 and 85 years of age.

The average age at death of those dying from old age in the United States in 1890 was 82.26 years. In the registration states it was 83.03 years.

The following table shows, for each grand group, the proportion of deaths due to old age during the census year per 1,000 deaths from known causes, with distinction of sex and color, of rural districts and cities, and of children of mothers born in Ireland and in Germany:

GRAND GROUPS.	Total.	RURAL.		CITIES.		White.	Colored.	MOTHERS BORN IN—	
		Males.	Females.	Males.	Females.			Ireland.	Germany.
1. North Atlantic Coast region.....	31.74	37.29	55.96	17.89	30.79	31.95	19.31	28.68	10.38
2. Middle Atlantic Coast region.....	13.75	21.47	26.97	7.75	15.51	13.61	15.02	15.71	10.74
3. South Atlantic Coast region.....	19.42	14.53	19.23	17.78	34.87	17.54	20.61	51.55	.....
4. Gulf Coast region.....	13.40	17.00	17.80	3.22	14.07	0.91	18.58	54.95	15.63
5. Northeastern hills and plateaus.....	45.40	45.82	57.82	23.01	33.68	45.47	34.00	47.28	29.30
6. Central Appalachian region.....	20.49	18.77	24.27	15.55	19.20	20.41	23.81	38.41	23.84
7. Region of the Great Northern Lakes.....	24.23	34.52	30.15	14.68	22.62	24.40	10.10	55.70	33.98
8. Interior plateau.....	25.00	28.47	32.96	14.55	23.30	25.85	10.31	37.47	27.66
9. Southern Central Appalachian region.....	13.49	12.55	16.06	4.01	9.95	13.77	12.53	40.91	35.53
10. Ohio River belt.....	18.25	14.69	22.23	12.80	24.55	17.90	22.01	42.13	21.16
11. Southern interior plateau.....	14.58	13.07	16.14	9.30	17.74	12.89	15.95	23.62	.....
12. South Mississippi River belt.....	13.84	12.15	16.18	8.02	19.08	8.30	17.20	50.00	.....
13. North Mississippi River belt.....	15.95	18.75	23.41	8.00	11.28	16.38	8.59	42.32	26.57
14. Southwest Central region.....	8.78	7.57	9.77	10.81	14.12	7.41	14.70	29.15	29.78
15. Central region, plains and prairies.....	20.65	18.32	21.50	19.28	34.81	20.60	21.02	48.75	39.07
16. Prairie region.....	18.12	15.69	19.11	37.20	49.74	18.21	13.75	39.62	27.33
17. Missouri River belt.....	11.40	11.18	11.58	11.69	11.25	11.75	8.81	30.42	17.17
18. Region of the Western plains.....	7.20	6.70	6.37	4.65	15.11	6.94	11.93	21.80	15.72
19. Heavily timbered region of the Northwest.....	24.61	22.87	26.58	.....	.....	21.30	37.43	40.16	29.41
20. Cordilleran region.....	10.96	13.54	21.05	18.37	42.47	16.29	25.95	17.93	19.70
21. Pacific Coast region.....	13.93	13.29	22.18	9.14	15.90	14.01	12.81	25.94	15.29

The geographical distribution of deaths from old age in the several grand groups is shown in map No. 18.

It will be seen from the preceding table and map that the proportion of deaths due to old age to deaths from known causes was greatest in the northeastern portion of the United States and least in the Western plains; that in all the grand groups, except the Cordilleran region, it was greater in the children of mothers born in Ireland than in the children of mothers born in Germany, this difference being especially well marked in the Southern regions. In the northern part of the United States it was greater among the whites than among the colored, but the reverse of this was the case in the Southern regions.

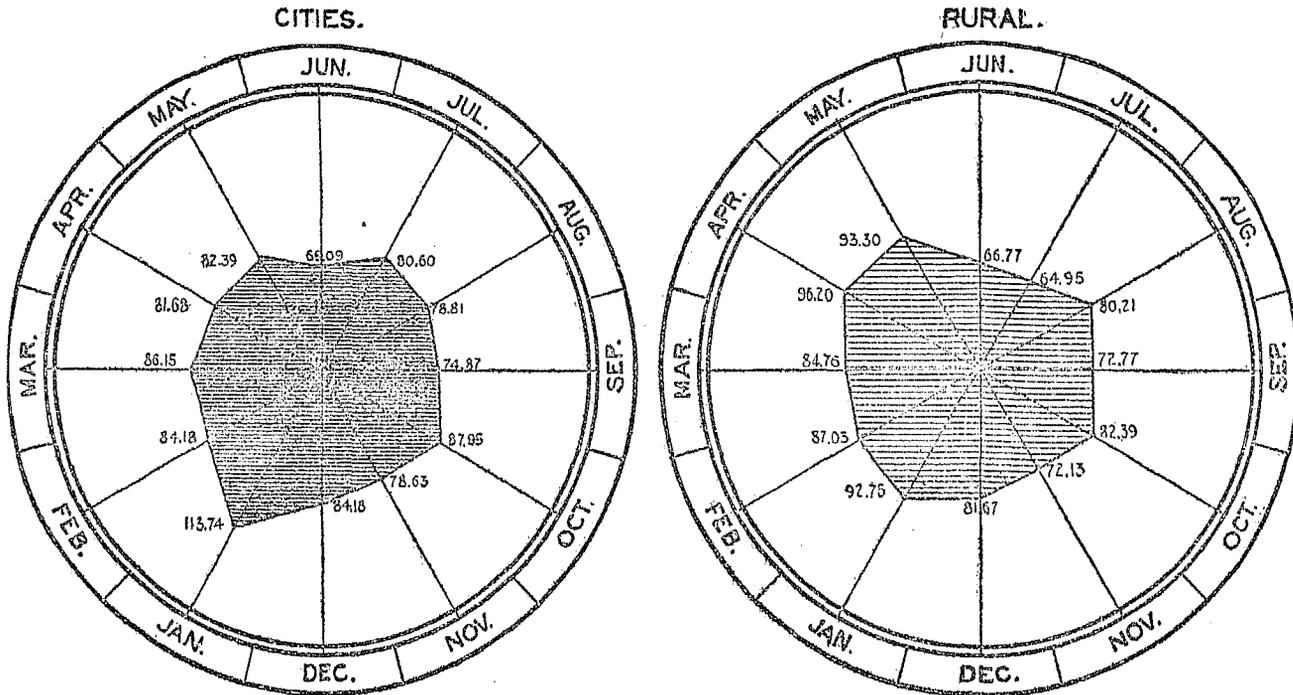
The following table shows, for the United States, the number of deaths from old age in each month during the census year, and the proportion in each month per 1,000 deaths from this cause, with distinction of cities and of rural districts:

MONTHS.	DEATHS.			PROPORTION IN EACH MONTH PER 1,000 TOTAL DEATHS.		
	United States.	Cities.	Rural.	United States.	Cities.	Rural.
Total.....	16,591	5,683	11,008	.....	.....	.....
June.....	1,104	369	735	66.54	66.09	66.77
July.....	1,165	450	715	70.22	80.00	64.95
August.....	1,323	440	883	79.74	78.81	80.21
September.....	1,219	418	801	73.47	74.87	72.77
October.....	1,398	491	907	84.26	87.95	82.39
November.....	1,233	439	794	74.32	78.63	72.13
December.....	1,369	470	899	82.51	84.18	81.67
January.....	1,656	635	1,021	99.81	113.74	92.75
February.....	1,428	470	958	86.07	84.18	87.03
March.....	1,414	481	933	85.23	86.15	84.76
April.....	1,515	456	1,059	91.31	81.68	96.20
May.....	1,487	460	1,027	89.63	82.39	93.30
Unknown.....	280	4	276	16.88	0.72	25.67

VITAL AND SOCIAL STATISTICS.

It will be seen from this table that the greatest proportion of deaths reported as due to old age occurred in January (99.81), April (91.31), May (89.63), and February (86.07); and the least in June (66.54), July (70.22), and September (73.47). The greatest proportion of all occurred in the cities in January (113.74), and the least in the rural districts in July (64.95).

The relative proportion of deaths due to old age in each month in the cities and in the rural districts, as indicated in the preceding table, and the difference in the proportion of deaths in the two areas are shown in the following diagram:

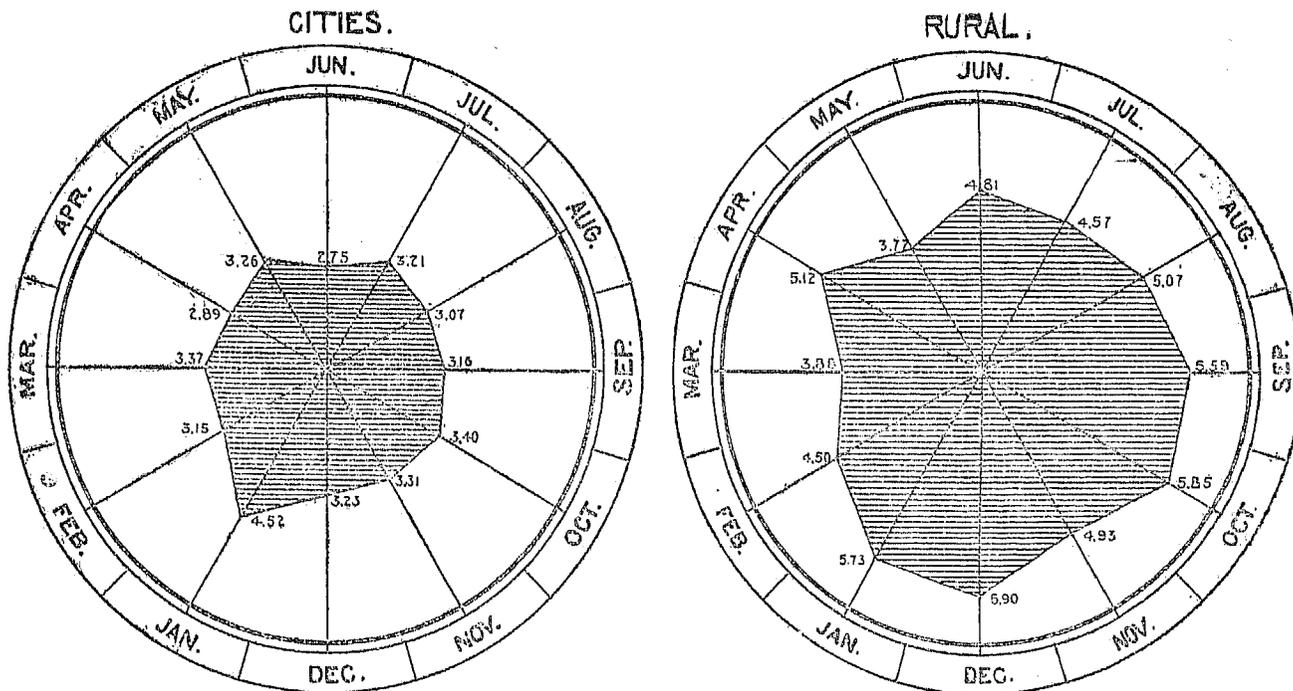


The following table shows, for the sum of Grand Groups 1, 2, and 5, which were mainly registration areas, the number of deaths from old age in each month during the census year and the death rates per 100,000 of population, with distinction of cities and of rural districts:

MONTHS.	DEATHS.			RATE.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.
June.....	375	172	203	3.58	2.75	4.81
July.....	394	201	193	3.76	3.21	4.57
August.....	406	192	214	3.87	3.07	5.07
September.....	434	198	236	4.14	3.16	5.59
October.....	400	213	247	4.39	3.40	5.85
November.....	415	207	208	3.96	3.81	4.03
December.....	451	202	249	4.30	3.23	5.90
January.....	525	280	242	5.01	4.52	5.73
February.....	387	197	190	3.69	3.15	4.50
March.....	375	211	164	3.58	3.37	3.88
April.....	397	181	216	3.79	2.89	5.12
May.....	363	204	159	3.46	3.26	3.77

It will be seen from the preceding table that the highest death rate from old age occurred in January (5.01) and the lowest in May (3.46). In the rural districts the death rates from this cause were highest in December (5.90), in October (5.85), and in January (5.73); and were lowest in May (3.77) and in March (3.88).

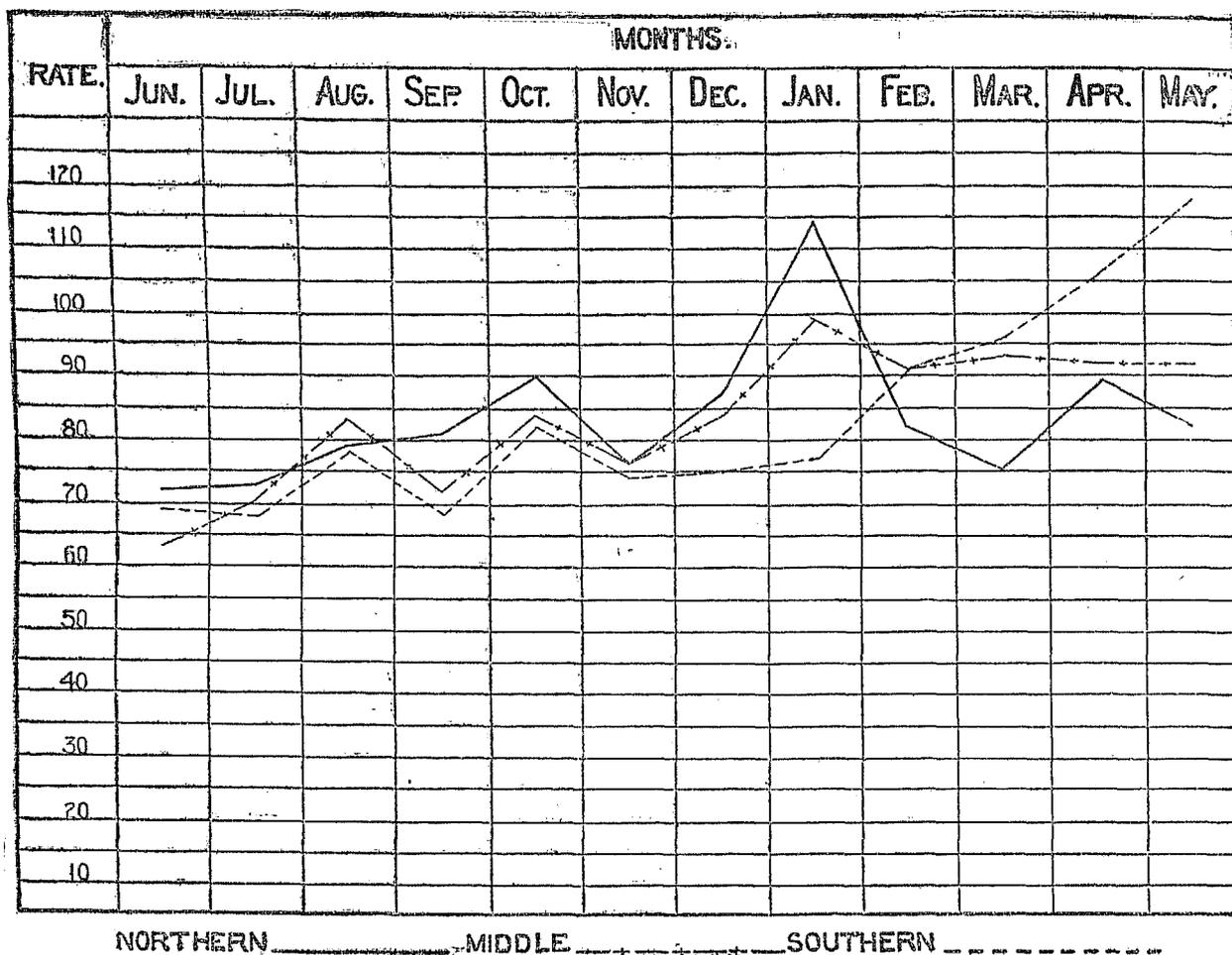
The death rates in each month, as given in the preceding table, and the relative magnitude of the rates in the cities and the rural districts, are shown graphically in the following diagram:



The following table shows, for three divisions of grand groups, namely, Northern, Middle, and Southern, the number of deaths from old age at 60 years and over, in each month during the census year, and the proportion in each month per 1,000 deaths at 60 years and over from this cause of which the month is known:

MONTHS.	NORTHERN REGION. GRAND GROUPS 1, 5, 7, 13, 17, AND 19.		MIDDLE GRAND GROUPS 2, 6, 8, 11 20.
	Deaths.	Proportion.	Deaths.
June.....	420	71.91	513
July.....	434	72.75	581
August.....	472	70.11	678
September.....	486	81.46	584
October.....	536	89.84	670
November.....	465	76.27	614
December.....	520	87.16	681
January.....	681	114.15	800
February.....	488	81.80	740
March.....	446	74.76	756
April.....	582	89.17	740
May.....	487	81.63	747

The relative proportion of deaths in each month in the several divisions, as given in the preceding table, is shown in the following diagram:



The gradual rise in the proportion of deaths from June, 1889, to May, 1890, as indicated by the preceding table and diagram, is not greater than that which would be fully accounted for by the greater omissions in the records in the periods of time most distant from the date of taking the census. The greatest proportion of deaths attributed to old age appears to have occurred in January in the Northern and Middle regions, and in April and May in the Southern region.

#### TUBERCULOSIS.

The census data do not enable us to determine accurately the mortality due to tuberculosis, not even in any part of the registration area, because in cases of death from tuberculosis of other parts of the body than the lungs the fact that the disease was tubercular is usually not stated.

Tuberculosis of the lungs, commonly known as consumption, is the cause of the great majority of the deaths produced by the bacillus of tubercle, but a considerable proportion of the deaths reported as due to scrofula and tabes, to hydrocephalus, to diseases of the bones and joints, to diarrhea, and to debility and atrophy are also caused by this bacillus.

In the United States, during the census year, the number of deaths reported as due to consumption was 102,199; to hydrocephalus, 4,338; to scrofula and tabes, 4,121; and to diseases of the bones and joints, 2,802; making a total of 113,460, of which 90 per cent were attributed to consumption. In the registration area the proportion was about the same, being 89.92 per cent.

In those European countries in which an attempt is made to report the total number of deaths due to tuberculosis the percentage of such deaths due to consumption ranges from 84 in Sweden to 97 in Austria, the mean being about 90 per cent, or the same as that given above for the United States, on the assumption that all cases reported as due to hydrocephalus, scrofula and tabes, and diseases of the bones and joints were due to tuberculosis. This assumption is not strictly correct, especially as regards the diseases of the bones and joints, but on the other hand a certain number of the deaths reported as due to diarrhea, atrophy, etc., were really due to tuberculosis, so that it is safe to say that the number of deaths due to tuberculosis was at least 12 per cent greater than the number attributed to consumption alone.

## CONSUMPTION.

The total number of deaths reported as due to consumption in the United States during the census year was 102,199, of which 48,925 were of males and 53,274 were of females, being, as usual, the greatest number of deaths reported as due to any single cause. In the registration area the number of deaths reported as due to this cause was, males, 25,119; females, 23,117; total, 48,236, being 245.36 deaths per 100,000 of population. In 1890 the corresponding death rates from this disease were, in England and Wales, 168.2; in Ireland, 215.7; in Scotland, 191.3; in Italy, 106.8; in Belgium, 178.9; and in Austria, 394.0.

During the 10 years 1880 to 1889 the death rates from consumption per 100,000 population were, in England and Wales, 174.9; in Ireland, 209.7; in Scotland, 201.7; in Norway, 138.9; in Prussia, 304.3; in Austria, 387.6; in Saxony, 238.4; in Massachusetts, 288.4; in Connecticut, 209.1; in Rhode Island, 239.8; and in New Jersey, 239.9.

The following table shows, for the registration area and some of its subdivisions, the death rates from consumption during the census year per 100,000 of population, with distinction of color, sex, general nativity, and parental nativity:

AREAS.	Aggre- gate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
Registration area.....	245.36	230.00	240.06	219.99	200.08	167.09	259.77	312.33	546.11	578.25	514.98
Cities.....	265.59	247.15	265.00	229.50	212.93	177.04	274.18	325.91	563.14	599.54	528.21
States.....	218.00	242.39	250.03	234.87	209.10	165.42	280.07	338.35	520.20	589.77	471.93
Cities.....	293.46	285.13	308.07	263.23	243.40	176.14	309.07	372.21	600.12	696.65	513.74
Rural.....	181.00	177.72	165.06	190.59	167.73	157.23	203.89	231.84	365.20	364.35	366.11
Cities in nonregistration states.....	239.85	209.73	224.04	195.08	184.66	178.97	193.82	273.53	552.85	573.74	532.42
Cities of 100,000 population and upward.....	268.81	252.85	.....	.....	213.32	190.30	266.84	333.07	583.40	.....	.....
Metropolitan district, 6 years.....	332.20	327.75	365.49	290.82	260.52	233.93	292.66	425.42	581.54	714.29	453.86

It will be seen from this table that the death rate from consumption was much higher among the colored (546.11) than among the whites (230.00); that it was higher among males (white, 240.06; colored, 578.25) than among females (white, 219.99; colored, 514.98), and that for the whites it was higher among the foreign born (312.33) than it was among the native born (200.08).

In the registration states the death rate from consumption (245.36) was a little higher than in the registration area as a whole (245.36), and in these states it was much higher in the cities (293.46) than it was in the rural districts (181.00). In the rural districts it was a little higher among females than among males.

## VITAL AND SOCIAL STATISTICS.

The following table shows, for each of the registration states, and for their sum, the death rates from consumption during the census year per 100,000 of population, with distinction of sex, of color, and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total .....	248.96	293.46	181.00	257.73	318.03	168.63	240.39	270.06	193.58
Connecticut .....	233.57	272.61	205.77	245.71	301.42	206.07	221.65	244.85	204.88
Delaware .....	282.50	279.09	283.95	243.07	249.89	239.23	323.20	310.29	330.76
District of Columbia.....	358.95	338.95	.....	403.34	403.34	.....	318.69	318.69	.....
Massachusetts.....	267.13	270.39	227.04	265.24	278.14	230.36	268.93	282.42	223.79
New Hampshire.....	193.61	191.85	194.34	171.62	176.51	169.69	215.30	205.55	219.63
New Jersey.....	234.47	268.92	189.42	247.08	300.30	178.73	221.93	238.17	200.29
New York.....	247.66	306.63	152.33	264.34	343.17	141.17	231.22	271.54	163.80
Rhode Island.....	206.57	294.90	227.59	275.55	320.21	216.22	258.06	271.62	238.77
Vermont.....	198.84	243.85	194.66	155.32	221.45	149.57	244.03	264.42	242.00
White .....	242.39	285.13	177.72	.....	.....	.....	.....	.....	.....
Connecticut .....	229.06	265.13	203.58	.....	.....	.....	.....	.....	.....
Delaware .....	244.88	234.40	251.41	.....	.....	.....	.....	.....	.....
District of Columbia.....	245.00	245.00	.....	.....	.....	.....	.....	.....	.....
Massachusetts.....	262.66	274.20	225.08	.....	.....	.....	.....	.....	.....
New Hampshire.....	193.43	192.25	193.92	.....	.....	.....	.....	.....	.....
New Jersey.....	228.06	264.46	179.81	.....	.....	.....	.....	.....	.....
New York.....	244.18	301.03	151.69	.....	.....	.....	.....	.....	.....
Rhode Island.....	261.35	290.55	221.76	.....	.....	.....	.....	.....	.....
Vermont.....	198.84	245.30	194.53	.....	.....	.....	.....	.....	.....
Colored.....	529.20	600.12	365.20	589.77	696.65	361.35	471.93	513.74	366.11
Connecticut .....	491.42	611.03	360.07	553.62	517.50	592.60	430.90	700.73	130.17
Delaware .....	467.87	599.19	419.28	400.14	428.38	390.33	538.33	761.04	450.45
District of Columbia.....	591.83	591.83	.....	685.76	685.76	.....	515.93	515.93	.....
Massachusetts.....	687.31	726.37	489.31	677.80	693.24	599.40	697.35	761.13	372.14
New Hampshire.....	289.86	.....	436.68	253.16	.....	375.04	338.98	.....	539.83
New Jersey.....	419.84	424.25	415.88	436.05	540.74	349.31	403.76	317.91	487.05
New York.....	526.38	662.51	217.00	658.11	857.60	236.21	394.84	476.19	195.77
Rhode Island.....	496.93	445.87	637.25	645.70	622.57	705.65	367.20	296.35	572.52
Vermont.....	199.20	.....	238.95	182.15	.....	216.92	210.78	.....	265.96

It will be seen from this table that the death rate from consumption was highest in the District of Columbia (358.95), which is mainly due to the large proportion of colored population in that area. Excluding this, the death rate from this disease was highest in Delaware (282.50) and in Massachusetts (267.13), and lowest in New Hampshire (193.61) and in Vermont (198.84). It was much higher in the cities (293.46) than in the rural districts (181.00). In the rural districts it was highest in Delaware (283.95), being higher than it was in the city of Wilmington (279.99); and was lowest in New York (152.33) and in New Jersey (189.42). It was higher among males (257.73) than among females (240.39), in the aggregate; but in Massachusetts, New Hampshire, and Vermont it was higher among females than among males. It was more than twice as high among the colored (529.20) as among the whites (242.39), and among the colored was excessively high in the cities in Massachusetts (726.37). It was highest of all among the colored males in the cities in New York (857.60).

Of 34,317 deaths from consumption in whites in the registration area during the census year 8,514 were children of mothers born in the United States, 10,559 children of mothers born in Ireland, 4,663 children of mothers born in Germany, 1,446 children of mothers born in Canada, 1,266 children of mothers born in England and Wales, 517 children of mothers born in Scandinavia, 440 children of mothers born in Scotland, 293 children of mothers born in Italy, 167 children of mothers born in France, 110 children of mothers born in Bohemia, and 57 children of mothers born in Hungary.

The following table shows, for the registration area and some of its subdivisions, the death rates from consumption among the whites during the census year per 100,000 of white population, with distinction of birthplaces of mothers:

AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
Registration area .....	122.76	181.28	396.97	215.87	293.70	219.40	214.92	212.07	178.10	270.21	209.21	245.87
Cities .....	124.58	191.79	431.89	237.37	220.98	229.24	239.32	218.12	193.49	275.08	230.10	261.56
States .....	135.21	185.72	415.47	227.25	213.56	247.83	216.33	239.90	198.49	437.21	209.95	188.63
Cities .....	152.91	202.19	463.75	290.36	245.25	271.01	246.49	266.16	222.70	467.89	234.71	261.13
Rural .....	120.57	151.74	267.50	146.79	136.75	147.62	168.31	177.81	73.24	138.22	84.56	119.23
Cities in nonregistration states .....	62.95	163.15	276.11	166.12	180.40	168.67	203.51	183.75	162.88	166.96	234.19	397.89
Cities of 100,000 population and upward .....	142.64	196.15	484.00	265.67	257.62	243.74	323.96	238.46	184.00	280.65	247.12	267.22

It will be seen from this table that the death rate from consumption among the whites in the registration area was highest among those whose mothers were born in Ireland (396.97), in Bohemia (270.21), and in Germany (219.40), and that it was lowest among those whose mothers were born in the United States (122.76). It was highest of all in the children of mothers born in Ireland living in cities of 100,000 population and upward (484.00), and in such cities it was also very high among the children of mothers born in Canada (323.96).

The following table shows, for the registration area and some of its subdivisions, the death rates from consumption during the census year in each of three age groups per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	15 TO 45 YEARS.			45 TO 65 YEARS.			65 YEARS AND OVER.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
Registration area .....	320.07	324.48	315.69	319.34	384.48	254.82	368.95	410.01	332.30
Cities .....	345.47	359.97	331.18	363.28	446.58	280.57	396.89	474.22	333.71
States .....	324.84	327.04	322.71	310.16	372.12	250.51	360.52	381.07	341.88
Cities .....	380.66	404.52	358.21	380.12	487.06	296.59	401.28	458.76	356.15
Rural .....	227.38	197.07	258.24	212.26	232.48	192.37	330.72	331.28	330.16
Cities in nonregistration states .....	313.19	320.90	305.26	336.52	406.09	263.23	391.85	491.16	306.96
Cities of 100,000 population and upward .....	347.92	373.46	322.31	368.43	487.22	288.27	427.52	518.88	352.63
Metropolitan district .....	419.25	477.21	363.33	481.57	615.82	347.80	519.73	629.81	427.82

It will be seen from this table that the death rate from consumption in persons 65 years of age and over (368.95) was higher than it was in persons from 15 to 45 (320.07), or from 45 to 65 years of age (319.34), in the registration area as a whole, but that in the cities in the registration states the death rate from this cause was higher among males from 45 to 65 years of age (487.06) than it was among males in the age group of 65 years of age and over (458.76). The highest death rates from this disease in each age group occurred in the metropolitan district, being 419.25 for those 15 to 45 years of age, 481.57 for those 45 to 65 years of age, and 519.73 for those 65 years of age and over.

The death rate from this disease was higher in males than in females in each age group for the registration area as a whole and in the cities, but in the rural districts of the registration states it was higher among females 15 to 45 years of age (258.24) than it was among males of the same age group (197.07).

## VITAL AND SOCIAL STATISTICS.

The combined relations of age and race to the death rates from consumption are indicated in the following table showing the number of deaths in each of three age groups, and the death rates per 100,000 population of corresponding ages, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New Jersey for the census year:

COLOR AND BIRTHPLACES OF MOTHERS.	15 TO 45 YEARS.		45 TO 65 YEARS.		65 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
White .....	9,532	398.11	2,824	432.49	682	438.24
Colored .....	698	676.51	150	684.40	34	658.02
Birthplaces of mothers (white):						
United States .....	1,752	228.49	539	240.26	174	252.26
England and Wales .....	297	256.80	132	350.73	28	302.41
Ireland .....	3,912	630.45	1,108	651.09	243	753.07
Scotland .....	137	363.68	42	361.01	11	402.34
France .....	53	276.96	28	444.02	9	633.80
Germany .....	1,809	340.75	628	420.99	144	452.22
Canada .....	195	490.34	24	350.11	5	462.53
Scandinavia .....	133	406.06	25	497.22	4	597.01
Hungary .....	23	193.85	12	777.20		
Bohemia .....	49	730.47	9	680.79		
Italy .....	131	261.60	32	385.08	4	420.17

It will be seen from this table that in each age group the death rate was much higher among the colored than among the whites, the difference being greatest in the age group from 15 to 45, in which age group, however, the death rate of the children of mothers born in Bohemia (730.47) exceeded the death rate of the colored (676.51). In this age group the death rate of children of mothers born in Ireland (630.45) was more than twice as high as that of the children of mothers born in the United States (228.49). The death rate of the children of mothers born in Canada (490.34) and in Scandinavia (406.06) was also very high.

In the age group from 45 to 65 the highest death rates among the whites occurred in the children of mothers born in Hungary (777.20), in Bohemia (680.79), and in Ireland (651.09); and the lowest in the children of mothers born in the United States (240.26).

In the age group 65 years of age and over the death rates from this disease were highest in the children of mothers born in Ireland (753.07), in France (633.80), and in Scandinavia (597.01); and lowest in the children of mothers born in the United States (252.26).

For further details with regard to the death rates from consumption in large cities, see Part II of this report, page 96.

The following table shows the death rates from consumption in the registration area during the census year in each of certain age groups, with distinction of conjugal condition and of sex:

CONJUGAL CONDITION.	AGE PERIODS.							
	15 years and over.		15 to 45 years.		45 to 65 years.		65 years and over.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Single .....	330.44	282.07	314.84	277.50	595.42	312.06	660.54	484.35
Married .....	278.37	281.65	260.59	301.12	297.78	222.55	338.52	311.05
Widowed .....	591.48	305.63	803.72	427.58	628.51	251.97	415.38	293.85

It will be seen from this table that in the registration area the death rates from consumption in persons 15 years of age and over were higher among the single (males, 330.44; females, 282.07) than they were among the married (males, 278.37; females, 281.65); that among the single they were higher in males than in females; and among the married slightly higher in females than in males. The highest of all occurred among the widowed (males, 591.48; females, 305.63).

In the age group from 15 to 45 the death rate from this disease was higher among single males (314.84) than among married males (260.59), but was higher among married females (301.12) than among single females (277.50). It was highest of all among the widowed males of this age group (803.72).

In the age group from 45 to 65 it was much higher among the single males (595.42) than among the married males (297.78). It was highest of all among the widowed males (628.51). Among the females in this age group it was higher among the single (312.66) than among the married (222.55) or the widowed (251.97).

In the age group 65 years and over it was highest of all among the single males (660.54), being for single females, 484.35; for married males, 338.52; and for married females, 311.05.

The following table shows the death rates from consumption per 100,000 of population in the registration states during the census year, with distinction of conjugal condition, sex, color, and general nativity:

CONJUGAL CONDI- TION.	Aggregate.		COLOR AND NATIVITY.							
			White.						Colored.	
			Total.		Native born.		Foreign born.			
			Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Single .....	206.22	176.48	197.93	169.73	170.94	155.59	920.78	231.38	550.15	457.70
Married .....	281.00	289.14	275.12	284.70	229.72	268.46	338.56	303.86	555.43	497.77
Widowed .....	651.64	346.56	638.08	344.43	462.01	313.44	809.69	875.79	1,247.55	410.14

The much higher death rate from consumption among the widowed than among the married or single, indicated by this and the preceding table, is probably mainly due to the different proportions of persons 45 years of age and over in the three classes. The great difference in the death rates from this disease in males and females among the widowed, especially in the colored and foreign born, is noteworthy.

Out of each 100,000 deaths from all causes in the United States during the census year, 11,673 are reported as due to consumption, which is somewhat less than the corresponding figures for 1880 (12,059) or for 1870 (14,199). In England and Wales the corresponding proportion for 1890 was 8,602; in 1880, 9,141. During the 10 years 1880 to 1889 the corresponding proportions were: England and Wales, 9,090; Ireland, 11,580; Scotland, 10,470; Prussia, 12,226; Austria, 12,600; Norway, 8,207; Massachusetts, 15,130; Connecticut, 12,450; Rhode Island, 11,370; and New Jersey, 13,130.

The following table shows, for the United States and for the registration area and some of its subdivisions, the proportion of deaths due to consumption during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of color, sex, general nativity, and parental nativity.

AREA.	Aggre- gate.	WHITE.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
The United States .....	126.62	119.96	108.68	131.45	111.41	111.27	117.79	161.10	176.82	158.68	195.69
Registration area .....	126.48	121.57	110.05	123.37	106.31	98.32	122.13	162.72	189.62	190.68	188.49
Cities .....	127.89	122.33	122.83	121.76	104.29	94.07	118.22	165.33	188.52	189.79	187.15
States .....	129.27	127.07	124.84	129.49	110.86	96.89	129.45	172.04	195.17	206.40	183.98
Cities .....	133.29	131.01	132.52	129.36	109.50	88.68	125.69	179.00	191.66	206.34	176.43
Rural .....	120.29	118.44	107.75	120.77	113.84	104.24	147.52	143.79	209.79	206.67	213.24
Cities in nonregistration states .....	122.29	112.30	112.11	112.66	98.56	108.31	97.04	147.95	187.59	185.00	190.39
Cities of 100,000 population and upward .....	124.90	120.08	.....	.....	99.08	87.63	111.54	165.92	180.14	.....	.....
Metropolitan district, 6 years .....	133.24	131.65	137.01	125.60	100.43	85.88	110.13	196.57	215.55	244.85	182.50

## VITAL AND SOCIAL STATISTICS.

The preceding table indicates that the proportion of deaths due to consumption to deaths from known causes was very nearly the same in the United States as a whole as it was in the registration area; that it was greater in the United States as a whole among the colored (176.82) than it was among the whites (119.36); and that it was greater among females (whites, 131.45; colored, 195.69) than it was among males (whites, 108.68; colored, 158.68). It should be borne in mind, however, that the absolute death rate of males from this disease was higher than that of females in the registration area as shown in the first table given for this disease. The proportion was greater among the foreign born whites (151.10) than among the native born whites (111.41), and greater among the native born whites having one or both parents foreign (117.79) than among those having both parents native born (111.27). For the colored the proportion was greater in the registration states (195.17) than in the United States as a whole (176.82).

The following table shows for the United States, and for the registration area and some of its subdivisions, the proportion of deaths due to consumption among the whites during the census year per 1,000 deaths from known causes, excluding stillbirths, with distinction of birthplaces of mothers.

AREA.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
The United States.....	106.47	104.20	182.17	124.13	122.41	121.81	131.77	140.66	80.05	97.83	83.21	116.63
Registration area.....	89.08	110.18	183.57	133.53	125.28	123.81	133.39	135.98	70.72	100.46	82.42	123.05
Cities.....	70.85	110.55	183.61	133.50	130.20	129.75	131.17	135.05	80.60	100.09	82.02	127.05
States.....	93.07	110.15	191.42	133.26	126.54	133.34	131.92	140.28	83.81	145.61	78.99	109.41
Cities.....	83.77	110.61	192.01	140.43	134.23	141.24	128.80	139.50	90.73	146.34	78.33	109.28
Rural.....	106.91	108.89	183.30	109.23	101.32	119.02	139.83	142.86	66.67	125.00	89.47	110.68
Cities in nonregistration states.....	63.99	110.34	164.50	135.48	121.88	109.09	147.64	130.67	46.05	66.88	117.93	155.99
Cities of 100,000 population and upward..	75.68	109.36	183.43	140.35	141.10	130.94	154.64	136.61	80.21	97.72	84.27	123.05

This table indicates that in the United States as a whole, as well as in the registration area, the greatest proportion of deaths due to consumption among the whites occurred among the children of mothers born in Ireland; and the least among the children of mothers born in Hungary, in Italy, in Bohemia, and in England and Wales.

The proportion of deaths due to consumption in persons from 15 to 45 years of age per 1,000 of all deaths from known causes occurring in this age group was, for the whites, 293.49; for the colored, 342.62; for the Chinese, 431.65; and for the Indians, 507.19. The proportion of deaths due to consumption in persons 45 years of age and over per 1,000 of all deaths from known causes occurring in this age group was, for the whites, 99.01; for the colored, 135.74; for Chinese, 186.15; and for the Indians, 313.04.

These figures indicate that the mortality from this disease was highest among the Indians and Chinese, and lowest among the whites.

The following table shows the proportion of deaths due to consumption at certain ages and groups of ages per 1,000 deaths, at all ages, from this cause, in 1880 and in 1890, with distinction of sex:

AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Total under 5 years..	61.00	44.46	43.62	38.08	35 to 40 years.....	93.47	90.18	99.18	93.85
Under 1 year.....	29.86	19.28	21.19	16.06	40 to 45 years.....	78.26	67.85	78.20	69.61
1 year.....	14.76	11.23	10.51	6.69	45 to 50 years.....	69.72	51.87	70.89	54.99
2 years.....	8.73	6.90	5.79	5.61	50 to 55 years.....	61.53	41.91	60.05	43.24
3 years.....	4.69	4.11	3.33	3.79	55 to 60 years.....	51.16	30.28	48.01	33.36
4 years.....	2.98	2.87	2.70	2.92	60 to 65 years.....	49.08	32.26	42.94	31.27
5 to 10 years.....	11.08	12.66	8.81	12.08	65 to 70 years.....	40.40	27.67	35.36	27.16
10 to 15 years.....	14.40	26.18	14.88	20.04	70 to 75 years.....	31.54	22.31	24.89	20.23
15 to 20 years.....	59.74	107.03	62.49	110.31	75 to 80 years.....	20.81	16.04	16.26	12.23
20 to 25 years.....	131.73	167.92	135.93	150.16	80 to 85 years.....	9.05	3.03	7.08	6.24
25 to 30 years.....	118.74	142.15	132.31	142.98	85 to 90 years.....	3.08	2.79	2.38	2.60
30 to 35 years.....	97.01	107.21	114.59	114.75	90 to 95 years.....	0.87	0.87	0.70	0.55
					95 years and over.....	0.30	0.34	0.37	0.36



The preceding table and diagram show that at both periods the greatest proportion of deaths due to consumption occurred in the age group from 15 to 45 years of age, although the highest mortality in proportion to population occurred, as has been shown above, in persons 45 years of age and over.

The average age at death of those reported as dying of consumption in the United States during the census year was 35.50 years; in 1880 it was 37 years; in the registration states in 1890 it was 35.97 years.

The following table shows, for each grand group, the proportion of deaths due to consumption during the census year per 1,000 deaths from known causes, with distinction of sex and color, of rural districts and cities, and of children of mothers born in Ireland and in Germany.

GRAND GROUPS.	Total.	RURAL.		CITIES.		White.	Colored.	MOTHERS BORN IN—	
		Males.	Females.	Males.	Females.			Ireland.	Germany.
1. North Atlantic Coast region.....	134.07	128.54	145.61	129.46	136.04	132.58	221.04	109.23	131.95
2. Middle Atlantic Coast region.....	126.38	126.03	148.78	129.27	118.02	121.54	171.03	182.78	134.34
3. South Atlantic Coast region.....	130.45	108.97	139.60	140.09	164.11	91.39	155.85	159.79	118.04
4. Gulf Coast region.....	107.72	85.13	103.81	124.84	121.77	97.31	123.21	98.90	104.17
5. Northeastern hills and plateaus.....	124.08	108.45	137.55	115.55	137.42	123.33	250.00	191.95	95.24
6. Central Appalachian region.....	104.85	84.74	127.51	100.11	112.77	102.15	223.54	141.29	110.31
7. Region of the Great Northern Lakes.....	98.20	106.72	136.08	82.37	94.21	96.31	252.42	154.78	105.75
8. Interior plateau.....	119.80	103.21	144.52	115.44	118.46	110.80	184.45	156.48	113.17
9. Southern Central Appalachian region.....	134.23	99.71	169.77	112.90	167.63	115.64	198.02	145.45	116.75
10. Ohio River belt.....	148.75	120.47	192.26	127.13	138.00	141.49	227.51	160.15	141.16
11. Southern Interior plateau.....	116.24	93.72	137.51	120.93	150.07	82.33	143.66	110.24	105.88
12. South Mississippi River belt.....	115.49	96.66	123.09	157.19	162.16	104.43	122.51	87.50	127.27
13. North Mississippi River belt.....	105.31	98.23	129.59	95.77	90.41	100.82	181.92	163.56	88.65
14. Southwest Central region.....	91.44	73.85	106.00	143.37	132.40	85.23	118.33	139.94	72.27
15. Central region, plains and prairies.....	156.03	125.70	188.16	139.76	172.35	145.20	239.57	191.35	136.74
16. Prairie region.....	119.65	93.63	145.94	93.89	139.00	116.03	252.10	165.74	98.73
17. Missouri River belt.....	111.35	105.66	141.17	80.49	98.55	92.73	252.03	148.29	104.04
18. Region of the Western plains.....	95.61	90.46	98.15	117.02	76.49	80.80	254.47	153.01	78.62
19. Heavily timbered region of the Northwest.....	126.41	103.05	140.17	.....	.....	115.53	323.53	171.35	98.98
20. Cordilleran region.....	93.25	89.22	92.30	181.10	111.97	84.53	198.52	102.43	77.18
21. Pacific Coast region.....	104.97	154.18	157.02	196.45	133.69	154.02	311.70	178.26	161.92

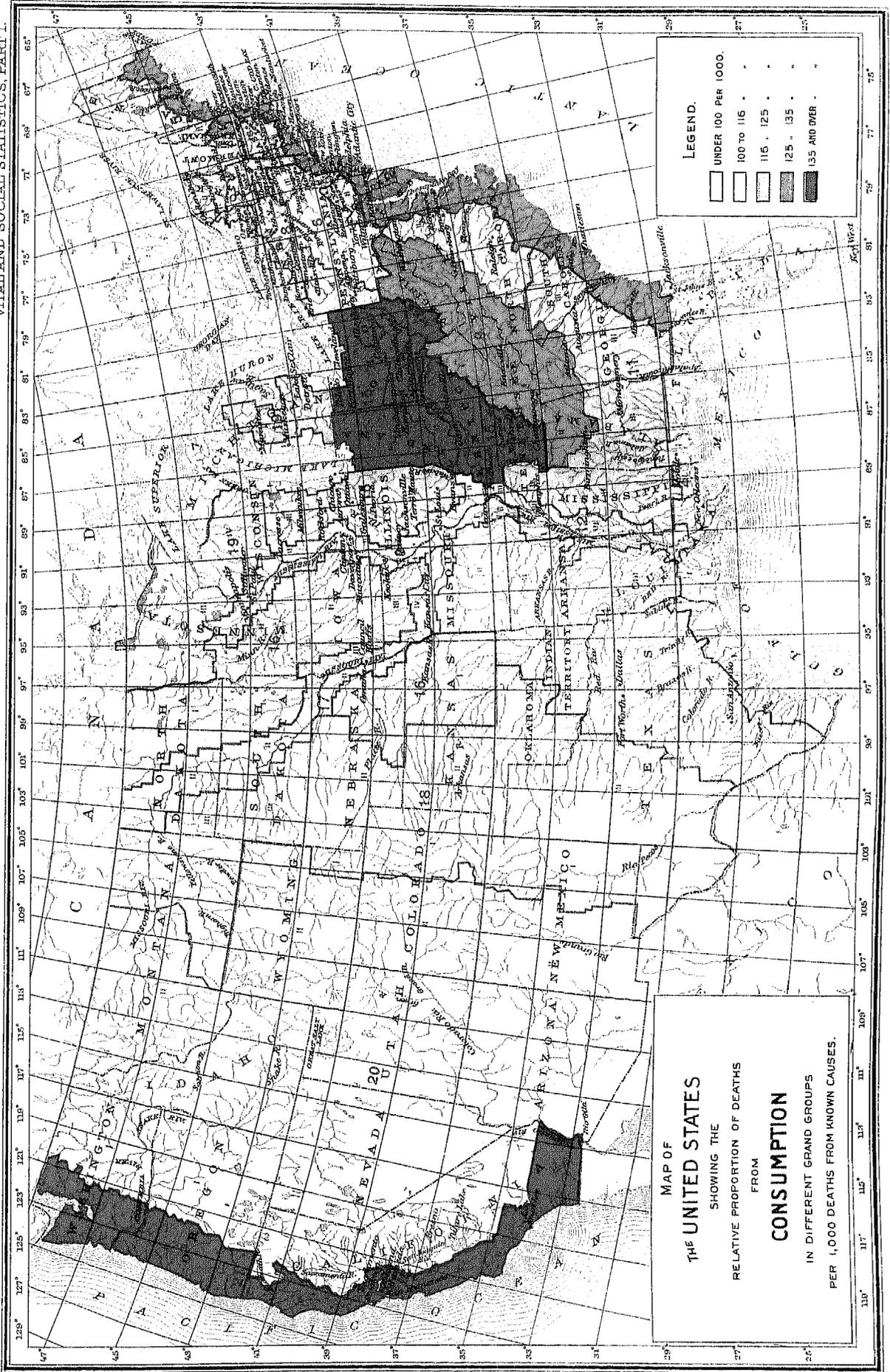
The geographical distribution of deaths in the several grand groups, indicated by the table given above, is shown in map No. 19.

On comparing this table and map with the corresponding ones given for the Tenth Census (Tenth Census Reports, vol. xii, plate lx) it will be seen that the relative distribution of the deaths from this disease was much the same in 1890 as it was in 1880, but that the proportion in the northeastern area was less in 1890 than in 1880, while the reverse was the case in the south.

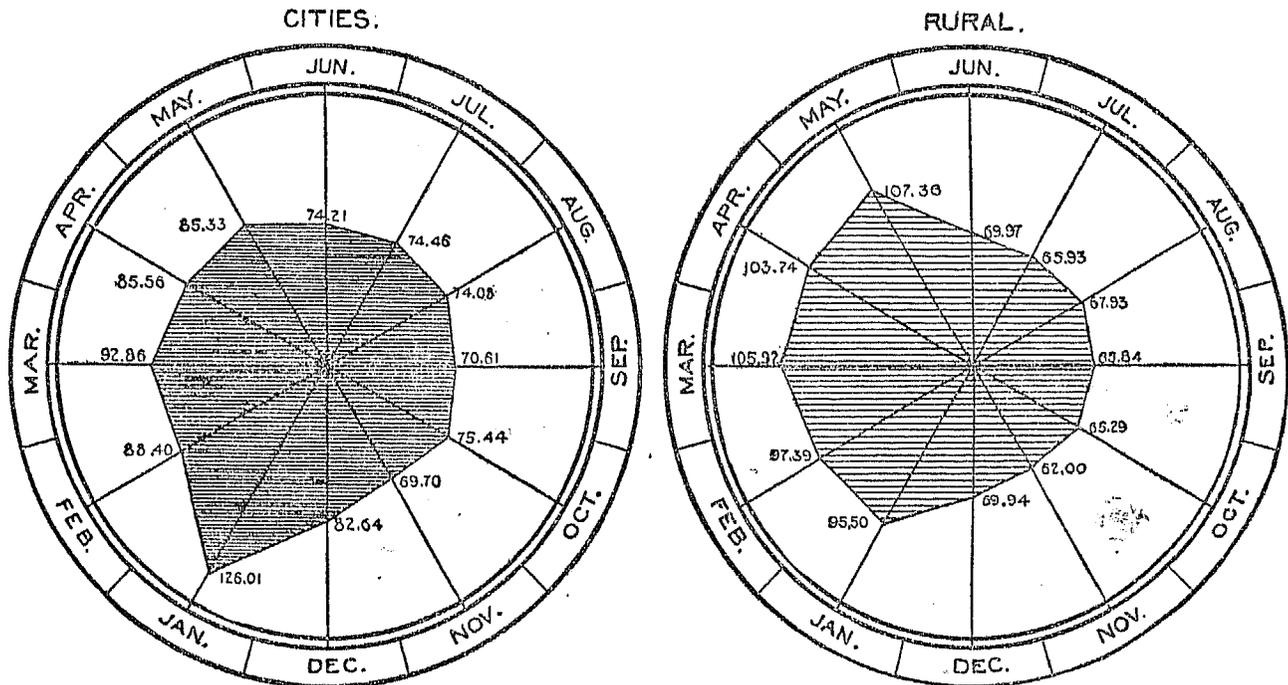
The geographical distribution of deaths from consumption by state groups, per 1,000 deaths from known causes in each group, is shown in map No. 20.

The following table shows, for the United States, the number of deaths from consumption in each month during the census year, and the proportion in each month per 1,000 deaths from this cause, with distinction of cities and of rural districts:

MONTHS.	DEATHS.			PROPORTION IN EACH MONTH PER 1,000 TOTAL DEATHS.		
	United States.	Cities.	Rural.	United States.	Cities.	Rural.
Total.....	102,199	39,727	62,472	.....	.....	.....
June.....	7,319	2,948	4,371	71.62	74.21	69.97
July.....	7,077	2,958	4,119	69.25	74.46	65.93
August.....	7,187	2,943	4,244	70.32	74.08	67.93
September.....	6,918	2,805	4,113	67.69	70.61	65.84
October.....	7,076	2,997	4,079	69.24	75.44	65.29
November.....	6,642	2,769	3,873	64.99	69.70	62.00
December.....	7,652	3,283	4,369	74.87	82.64	69.94
January.....	10,972	5,006	5,966	107.36	126.01	95.50
February.....	9,596	3,512	6,084	93.90	88.40	97.39
March.....	10,306	3,689	6,617	100.81	92.86	105.92
April.....	9,880	3,399	6,481	96.67	85.50	103.74
May.....	10,097	3,390	6,707	98.80	85.33	107.36
Unknown.....	1,477	23	1,449	14.45	0.70	23.19



The relative proportion of deaths from consumption in each month in the cities and in the rural districts, as indicated in the preceding table, and the difference in the proportion of deaths in the two areas, are shown in the following diagram:

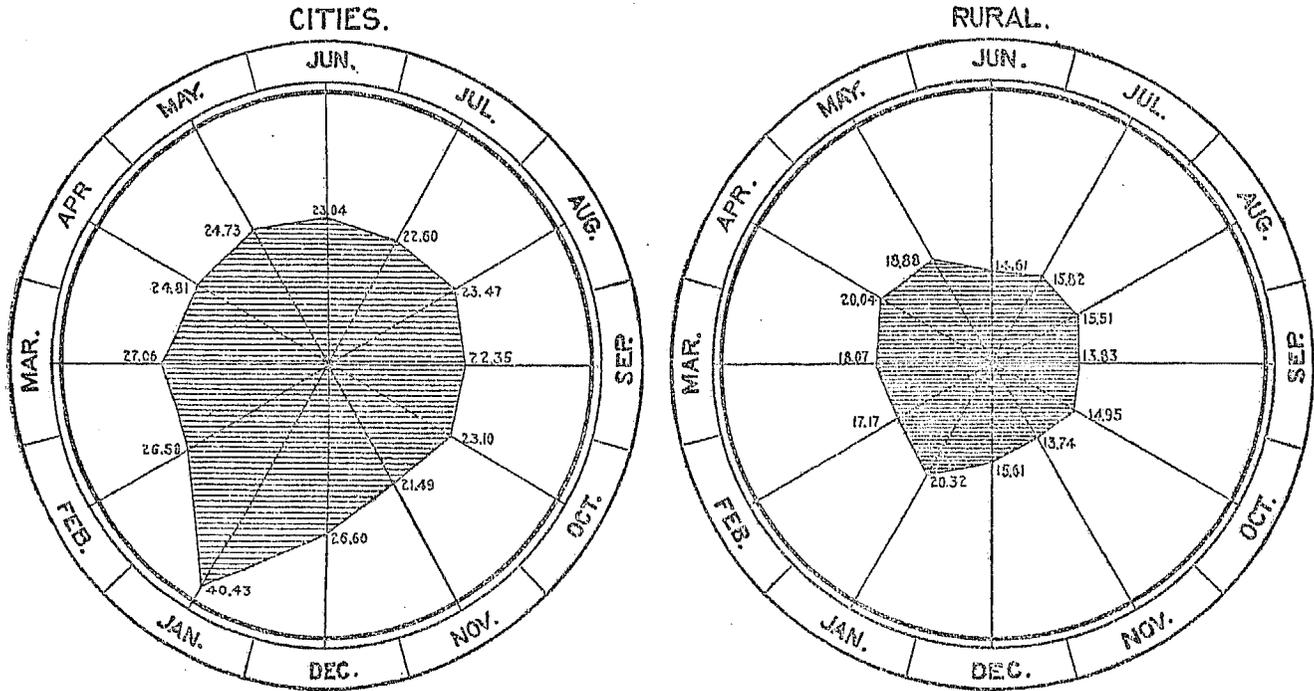


The preceding table and diagram indicate that the greatest proportion of deaths from this disease occurred in the months from January to May, but it must be remembered that the data for the earlier months in the census year were much more incomplete than those for the later months.

The following table shows, for the sum of Grand Groups 1, 2, and 5, which were mainly registration areas, the number of deaths from consumption in each month during the census year and the death rates per 100,000 of population, with distinction of cities and of rural districts:

MONTHS.	DEATHS.			RATE.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.
June.....	2,059	1,442	617	19.64	23.04	14.61
July.....	2,083	1,415	668	19.87	22.60	15.83
August.....	2,124	1,469	655	20.26	23.47	15.51
September.....	1,983	1,399	584	18.92	22.35	13.83
October.....	2,077	1,440	631	19.82	23.10	14.95
November.....	1,925	1,345	580	18.37	21.40	13.74
December.....	2,924	1,665	659	22.17	26.00	15.61
January.....	3,380	2,531	848	32.33	40.43	20.32
February.....	2,380	1,664	715	22.79	26.58	17.17
March.....	2,457	1,694	763	23.44	27.06	18.07
April.....	2,899	1,553	846	22.89	24.81	20.04
May.....	2,345	1,548	797	22.97	24.73	18.88

The death rates in each month, as given in the preceding table, and the relative magnitude of the rates in the cities and the rural districts, are shown graphically in the following diagram:



It will be seen from this table and diagram that the heaviest death rate from consumption occurred in the month of January and the lightest in the month of November, both in the cities and in the rural districts. It is probable that the epidemic of influenza which prevailed in January, 1890, had some effect in increasing the number of deaths of persons affected with consumption.

For further details with regard to death rates from consumption in large cities, see Part II of this report, page 96.

The following table shows, for the registration area and some of its subdivisions, the death rate of males from consumption per 100,000 males engaged in each specified occupation and class of occupations:

OCCUPATIONS.	Registration area.	REGISTRATION STATES.			Registration cities in other states.
		Total.	Cities.	Rural.	
All occupations .....	240.65	270.66	363.60	161.15	204.45
<b>A.—Professional .....</b>	197.81	219.04	244.56	102.44	170.36
Architects, artists, and teachers of art, etc.....	233.71	303.57	287.06	425.31	137.08
Clergymen .....	185.10	153.61	204.33	108.66	238.40
Dentists .....	180.73	240.70	320.41	69.01	113.51
Engineers and surveyors .....	67.70	89.98	66.19	131.09	42.54
Journalists .....	369.31	416.00	420.34	402.25	310.66
Lawyers .....	173.63	200.14	214.02	162.84	144.25
Musicians and teachers of music.....	284.08	341.37	360.00	222.30	210.96
Physicians and surgeons .....	181.36	189.88	217.71	141.16	170.48
Professors, authors, and literary and scientific persons.....	337.31	260.32	286.53	168.07	455.06
Teachers.....	169.17	159.31	185.56	135.36	161.60
<b>B.—Clerical and official.....</b>	211.66	279.91	296.13	211.79	137.96
Accountants, bookkeepers, clerks and copyists.....	275.84	371.74	381.30	322.65	173.25
Bankers, brokers, and officials of companies.....	40.04	50.61	49.93	62.36	25.21
Collectors, auctioneers, and agents.....	125.48	151.90	173.01	79.61	101.85
<b>C.—Mercantile and trading .....</b>	176.44	265.53	230.72	122.54	140.77
Apothecaries, pharmacists, etc.....	259.83	391.87	430.42	203.36	130.90
Commercial travelers and salesmen.....	127.89	144.99	151.76	103.37	109.53
Merchants and dealers.....	187.54	208.36	237.01	127.83	160.41
Hucksters and peddlers.....	215.85	287.47	346.74	45.02	124.34
Wine and liquor dealers (retail).....	274.40	312.67	335.33	.....	195.09
<b>D.—Entertainment .....</b>	306.95	357.85	424.00	164.65	248.68
Hotel and boarding house keepers .....	202.31	233.08	325.79	158.10	137.68
Saloon and restaurant keepers, bartenders, etc.....	332.70	399.59	441.39	172.44	266.25

# CAUSES OF DEATH.

327

## DEATH RATE, FROM CONSUMPTION, OF MALES IN EACH OCCUPATION—Continued.

OCCUPATIONS.	Registration area.	REGISTRATION STATES.			Registration cities in other states.
		Total.	Cities.	Rural.	
<b>E.—Personal service.....</b>	280.98	343.80	337.00	152.48	212.52
Barbers and hairdressers.....	348.20	409.19	433.04	311.25	284.01
Janitors and sextons.....	225.18	236.94	272.02	.....	210.50
Laundresses.....	365.85	573.98	645.26	97.94	217.79
Police-men, watchmen, and detectives.....	204.06	262.58	304.50	47.37	141.15
Soldiers, sailors, and marines.....	372.61	481.22	603.09	110.55	209.64
<b>F.—Laborers and servants.....</b>	388.14	484.94	565.43	326.03	293.29
Laborers.....	424.09	519.24	621.63	344.01	329.43
Servants.....	285.94	408.98	485.52	143.10	177.56
<b>G.—Manufacturing and mechanical industries.....</b>	267.57	313.64	361.47	107.12	200.98
Artificial flower and paper box makers.....	444.95	441.28	502.56	143.68	458.72
Bakers and confectioners.....	291.37	369.37	369.47	238.12	263.23
Blacksmiths.....	230.66	284.75	351.67	192.61	159.45
Bleachers, dyers, and scourers.....	211.83	196.00	222.72	130.12	242.26
Bookbinders.....	407.95	483.41	517.12	.....	397.22
Boot and shoe makers.....	318.47	348.27	357.93	826.64	235.24
Brass foundry and coppersmiths.....	338.98	374.84	428.84	269.21	251.39
Brewers, distillers, and rectifiers.....	271.17	326.70	298.01	570.37	233.24
Brick and tile makers, and terra cotta workers.....	56.41	25.80	45.50	21.80	163.74
Butchers.....	259.18	318.85	372.05	157.25	193.98
Cabinet makers and upholsterers.....	332.71	457.10	497.34	226.61	222.23
Carpenters and joiners.....	205.07	238.85	297.50	190.14	162.91
Cigar makers and tobacco workers.....	454.55	612.79	669.09	647.67	311.25
Clock and watch repairers, jewelers, etc.....	957.47	1,159.76	1,411.69	517.72	534.35
Compositors, printers, and pressmen.....	343.50	491.04	412.17	314.82	281.18
Coopers.....	310.95	381.15	446.43	229.89	249.04
Engineers and firemen (not locomotive).....	338.07	274.06	331.37	166.48	197.20
Glass blowers and glass workers.....	346.50	421.10	458.32	317.84	294.89
Gunsmiths, locksmiths, and bell hangers.....	339.61	371.24	502.33	79.81	287.12
Harness and saddle makers, trunk makers, etc.....	285.26	326.64	392.38	167.55	236.73
Hat and cap makers.....	643.67	660.95	787.54	220.47	537.80
Iron and steel workers.....	188.47	230.67	256.93	163.00	153.49
Leather curriers, dressers, finishers, and tanners.....	185.64	203.19	233.94	91.70	146.06
Machinists.....	325.50	387.41	330.37	180.15	144.20
Marble and stone cutters.....	308.73	405.91	.....	.....	.....
Masons (brick and stone).....	.....	.....	.....	.....	.....
Mill and factory operatives (textiles).....	.....	.....	.....	.....	.....
Millers (flour and grist).....	.....	.....	.....	.....	.....
Painters, glaziers, and varnishers.....	.....	.....	.....	.....	.....
Paper hangers.....	.....	.....	.....	.....	.....
Photographers.....	.....	.....	.....	.....	.....
Plasterers and whitewashers.....	.....	.....	.....	.....	.....
Plumbers, and gas and steam fitters.....	.....	.....	.....	.....	.....
Potters.....	.....	.....	.....	.....	.....
Tailors.....	.....	.....	.....	.....	.....
Tinners and tinware makers.....	.....	.....	.....	.....	.....
Wheelwrights.....	.....	.....	.....	.....	.....
<b>H.—Agriculture, transportation, and other outdoor occupations.....</b>	.....	.....	.....	.....	.....
Boatmen and canalmen.....	.....	.....	.....	.....	.....
Draymen, hackmen, teamsters, drivers, etc.....	.....	.....	.....	.....	.....
Farmers, planters, overseers, and farm laborers.....	.....	.....	.....	.....	.....
Fishermen and oystermen.....	.....	.....	.....	.....	.....
Gardeners, florists, nurserymen, and vine growers.....	.....	.....	.....	.....	.....
Livery stable keepers and hostlers.....	.....	.....	.....	.....	.....
Lumbermen and raftsmen.....	.....	.....	.....	.....	.....
Miners.....	.....	.....	.....	.....	.....
Quarrymen.....	.....	.....	.....	.....	.....
Sailors.....	.....	.....	.....	.....	.....
Steam railroad employes.....	.....	.....	.....	.....	.....
Stock raisers, herders, and drovers.....	.....	.....	.....	.....	.....
Telegraph and telephone operators.....	.....	.....	.....	.....	.....

This table shows that in the registration area the average males engaged in the specified occupations was 249.65. It was the clerical and official class (211.66), the mercantile and trading and transportation and other outdoor occupations (168.04); highest in the laboring and servant class (388.14).

## VITAL AND SOCIAL STATISTICS.

Taking the principal occupations included in those classes in which the number of persons engaged and the number of deaths among the same in the registration area are sufficient to give reliable results, the death rate from this cause was highest among sailors (613.40), cigar makers and tobacco workers (454.55), laborers (424.09), marble and stone cutters (398.73), and saloon keepers (332.70); and lowest among steam railroad employes (110.12), commercial travelers and salesmen (127.89), farmers and farm laborers (128.02), merchants and dealers (187.54), carpenters and joiners (205.67), mill and factory operatives (textiles, 223.52), and machinists (225.50).

The death rates for the whole registration area, so far as the relation of occupation is concerned, are probably too low, owing to the deficiency of the return of occupation of decedents in the cities in the nonregistration states in which the death rate from consumption among males in all occupations reported was 204.45 per 100,000, while in the cities of the registration states it was 363.60. A very considerable part of this difference is due to the locality of the cities, but the return of occupation of decedents was decidedly less complete than in the registration states.

Of the principal occupations in the registration states the highest death rate of males from consumption occurred among laborers in the cities, being 621.53 per 100,000, and the lowest rate occurred among farmers and farm laborers in the rural districts, being 106.26 per 100,000.

The following table shows, for the registration area and some of its subdivisions, the death rate of females from consumption per 100,000 females engaged in each specified occupation:

OCCUPATIONS.	Regis- tration area.	REGISTRATION STATES.			Regis- tration cities in other states.
		Total.	Cities.	Rural.	
All occupations.....	221.41	273.62	284.38	247.47	146.30
Musicians.....	54.63	62.17	60.47	.....	43.97
Teachers.....	130.31	131.39	167.61	64.38	128.24
Accountants.....	103.03	130.40	127.32	151.35	69.00
Laundresses.....	123.45	142.45	162.21	20.10	112.52
Nurses.....	153.52	120.67	130.55	68.31	201.12
Servants.....	302.76	383.02	408.72	330.50	190.04
Mill and factory operatives.....	180.01	211.28	224.80	180.72	101.13
Milliners, dressmakers, etc.....	115.21	140.03	134.36	158.79	84.66

It will be seen from the above table that the death rate from consumption among females engaged in the selected occupations in the registration area was 221.41 per 100,000, being highest in the registration cities of the registration states (284.38), and lowest in the registration cities of the nonregistration states (146.30). In each area the death rate of females from consumption was less than the corresponding death rate for males having specified occupations, except in the rural part of the registration states, in which the death rate from consumption was 247.47 for females and 161.15 for males.

In the registration states the highest death rate from consumption among females occurred among servants, being 383.02 per 100,000. The death rates of females in all other specified occupations in this area were below the average rate from this cause, those of mill and factory operatives being 211.28, of milliners, dressmakers, seamstresses, etc., 140.03, and of accountants, bookkeepers, clerks, and copyists, 130.40. In every occupation specified above for the registration states the death rates of females from consumption were less than the corresponding rates for males.

# CAUSES OF DEATH.

329

The following table shows, for the United States, the registration area and some of its subdivisions, and for the remainder of the United States, the proportion of deaths of males due to consumption per 1,000 deaths from all causes among males engaged in each specified occupation and class of occupations:

OCCUPATIONS.	United States.	Registration area	REGISTRATION STATES.			Registration offices in other states.	Remainder of the United States.
			Total.	Cities.	Rural.		
All occupations.....	171.60	203.29	202.13	231.70	143.70	205.73	152.27
<b>A.—Professional.....</b>	157.84	146.48	139.51	152.45	108.66	159.75	105.20
Architects, artists and teachers of art, etc.....	272.03	248.70	250.00	243.70	275.86	245.28	350.00
Clergymen.....	119.12	104.07	84.21	102.74	64.75	140.13	126.04
Dentists.....	142.13	178.57	189.60	243.90	63.82	153.45	115.04
Engineers and surveyors.....	137.61	151.70	100.00	120.09	294.12	135.14	122.64
Journalists.....	243.04	251.67	247.52	243.90	203.10	253.63	232.76
Lawyers.....	123.08	116.15	113.04	113.64	111.11	121.36	128.65
Musicians and teachers of music.....	238.89	219.01	213.84	216.78	187.50	228.02	279.66
Physicians and surgeons.....	112.47	65.45	68.10	103.85	62.50	108.23	121.07
Professors, authors, and literary and scientific persons.....	182.19	123.97	78.65	81.08	66.67	250.00	234.38
Teachers.....	200.32	172.62	153.85	144.93	160.67	215.69	286.45
<b>B.—Clerical and official.....</b>	200.60	275.09	285.49	288.75	267.75	264.77	228.31
Accountants, bookkeepers, clerks, and copyists.....	808.01	319.56	333.33	332.36	339.39	201.88	277.57
Bankers, brokers, and officials of companies.....	99.69	108.81	108.77	107.32	112.50	108.81	86.47
Collectors, auctioneers, and agents.....	157.57	149.87	141.96	151.86	92.11	161.00	169.63
<b>C.—Mercantile and trading.....</b>	167.76	167.45	167.74	179.26	119.94	166.02	168.21
Apothecaries, pharmacists, etc.....	219.65	209.02	242.04	243.00	235.29	140.43	220.00
Commercial travelers and salesmen.....	245.78	249.69	249.69	254.30	225.35	249.25	240.14
Merchants and dealers.....	146.66	145.07	142.17	152.78	104.40	159.25	148.40
Hucksters and peddlers.....	182.57	187.90	203.76	223.40	54.05	162.78	165.52
Wine and liquor dealers (retail).....	169.90	173.41	181.10	186.99	.....	152.17	151.53
<b>D.—Entertainment.....</b>	205.55	234.72	246.23	267.89	154.56	217.95	169.00
Hotel and boarding house keepers.....	120.63	145.39	150.10	173.91	133.33	116.88	101.93
Saloon and restaurant keepers, bartenders, etc.....	230.43	258.49	277.50	287.59	186.44	234.54	203.89
<b>E.—Personal service.....</b>	200.44	225.01	223.42	234.35	140.67	227.80	183.83
Barbers and hairdressers.....	317.48	307.09	326.39	318.73	378.33	281.82	333.83
Janitors and sextons.....	159.01	160.00	138.16	100.31	.....	205.48	155.17
Laundresses.....	423.68	479.17	511.30	556.99	111.11	428.57	210.53
Police, watchmen, and detectives.....	146.34	156.20	161.00	170.16	62.50	145.92	107.78
Soldiers, sailors, and marines.....	144.56	206.19	212.33	223.08	125.00	187.50	118.90
<b>F.—Laborers and servants.....</b>	201.84	212.76	214.72	224.82	186.10	209.65	189.00
Laborers.....	195.86	205.28	205.50	214.14	183.14	204.79	185.07
Servants.....	285.92	305.81	316.50	322.01	203.16	285.08	267.08
<b>G.—Manufacturing and mechanical industries.....</b>	211.25	235.05	241.97	257.62	190.34	220.80	172.85
Artificial flower and paper box makers.....	402.99	385.96	409.09	404.76	500.00	307.69	500.00
Bakers and confectioners.....	229.45	248.83	253.60	254.64	242.42	240.17	159.09
Blacksmiths.....	158.60	180.30	182.81	209.15	136.09	174.85	143.15
Bleachers, dyers, and scourers.....	212.12	214.05	181.82	196.43	142.80	300.00	200.00
Bookbinders.....	364.99	370.00	333.33	340.40	.....	482.76	333.33
Boot and shoe makers.....	190.05	209.89	228.05	234.48	213.66	157.89	147.91
Brass foundries and coppermiths.....	381.82	387.10	465.41	402.00	428.57	340.91	300.00
Brewers, distillers, and rectifiers.....	203.45	226.13	222.22	195.65	571.43	230.00	131.85
Brick and tile makers and terra cotta workers.....	197.49	178.22	135.14	85.29	187.50	203.13	156.86
Butchers.....	184.08	197.90	213.60	224.27	180.00	174.78	160.27
Cabinet makers and upholsterers.....	218.04	274.25	298.74	312.06	194.44	238.53	186.96
Carpenters and joiners.....	165.43	174.59	173.35	191.06	141.94	176.89	157.34
Cigar makers and tobacco workers.....	356.90	306.67	376.59	371.51	428.57	350.21	331.98
Clock and watch repairers, jewelers, etc.....	262.87	301.61	322.48	330.77	276.60	280.77	157.53
Compositors, printers, and pressmen.....	362.38	383.58	361.95	363.17	360.00	422.59	309.06
Coopers.....	165.30	183.77	177.42	190.48	135.59	192.98	140.57
Engineers and firemen (not locomotive).....	172.63	187.93	202.00	218.23	120.48	199.31	148.08
Glass blowers and glass workers.....	372.73	406.45	444.44	477.61	347.83	353.85	292.81
Gunsmiths, locksmiths, and bell hangers.....	171.97	211.76	211.27	233.33	90.91	350.00	75.76
Harness and saddle makers, trunk makers, etc.....	250.96	265.06	245.40	261.54	181.82	302.33	238.10
Hat and cap makers.....	335.33	341.85	339.35	345.24	280.00	301.11	238.10
Iron and steel workers.....	219.56	222.22	235.47	243.45	207.79	207.67	215.46
Leather curriers, dressers, finishers, and tanners.....	174.02	180.83	198.07	205.56	148.15	142.86	155.34
Machinists.....	235.48	244.78	252.08	262.05	217.14	226.26	209.03
Marble and stone cutters.....	914.86	827.00	814.45	844.20	207.79	867.52	287.04
Masons (brick and stone).....	172.92	197.44	197.18	217.62	188.61	197.04	142.25
Mill and factory operatives (textiles).....	259.70	279.63	277.78	277.78	284.31	252.75	179.59
Millers (flour and grit).....	123.48	167.63	154.47	204.55	126.58	200.00	107.66
Painters, glaziers, and varnishers.....	243.64	245.26	250.73	270.61	177.27	232.51	239.94
Paper hangers.....	265.31	263.16	371.43	419.35	.....	170.73	272.73
Photographers.....	302.01	292.68	250.00	264.71	222.22	366.67	313.43
Plasterers and whitewashers.....	240.74	259.26	306.45	299.15	428.57	210.08	222.22
Plumbers and gas and steam fitters.....	282.81	266.21	336.92	343.51	235.29	198.28	170.21
Potters.....	245.28	338.98	341.46	324.32	500.00	333.33	127.66
Tailors.....	189.89	199.55	202.98	211.46	126.44	193.21	161.57
Turners and tinware makers.....	260.79	297.99	307.60	314.81	282.61	283.60	190.22
Wheelwrights.....	149.83	191.18	170.47	192.98	155.56	235.29	112.58

## PROPORTION OF DEATHS, DUE TO CONSUMPTION, OF MALES IN EACH OCCUPATION—Continued.

OCCUPATIONS.	United States.	Registration area.	REGISTRATION STATES.			Registration cities in other states.	Remainder of the United States.
			Total.	Cities.	Rural.		
H—Agriculture, transportation, and other outdoor occupations.....	137.54	140.97	133.44	180.26	104.72	169.28	130.85
Boatmen and canalmen.....	140.50	159.09	149.43	175.00	92.59	135.65	111.89
Draymen, hackmen, teamsters, drivers, etc.....	211.83	235.32	259.73	259.05	182.43	207.84	259.06
Fariners, planters, overseers, and farm laborers.....	135.21	101.82	98.64	101.79	98.15	135.75	139.55
Fishermen and oystermen.....	184.01	234.38	211.92	255.56	147.54	317.07	156.07
Gardeners, florists, nurserymen, and vine growers.....	137.60	165.24	158.88	185.84	94.74	179.31	103.45
Livery stable keepers and hostlers.....	241.59	275.69	298.25	295.15	310.34	219.30	188.24
Lumbermen and raftsmen.....	121.89	113.92	69.77	71.43	68.97	166.67	123.84
Miners.....	92.11	96.77	80.00	86.96	76.92	104.05	91.71
Quarrymen.....	177.66	194.44	209.68	303.03	103.45	100.00	168.00
Sailors.....	174.00	182.33	164.50	158.54	173.15	214.66	151.02
Steam railroad employes.....	108.16	133.29	139.29	155.11	98.59	126.17	93.52
Stock raisers, herders, and drovers.....	113.68	159.09	50.00	90.91	.....	259.00	109.83
Telegraph and telephone operators.....	341.85	355.93	387.50	400.00	360.00	289.47	333.33

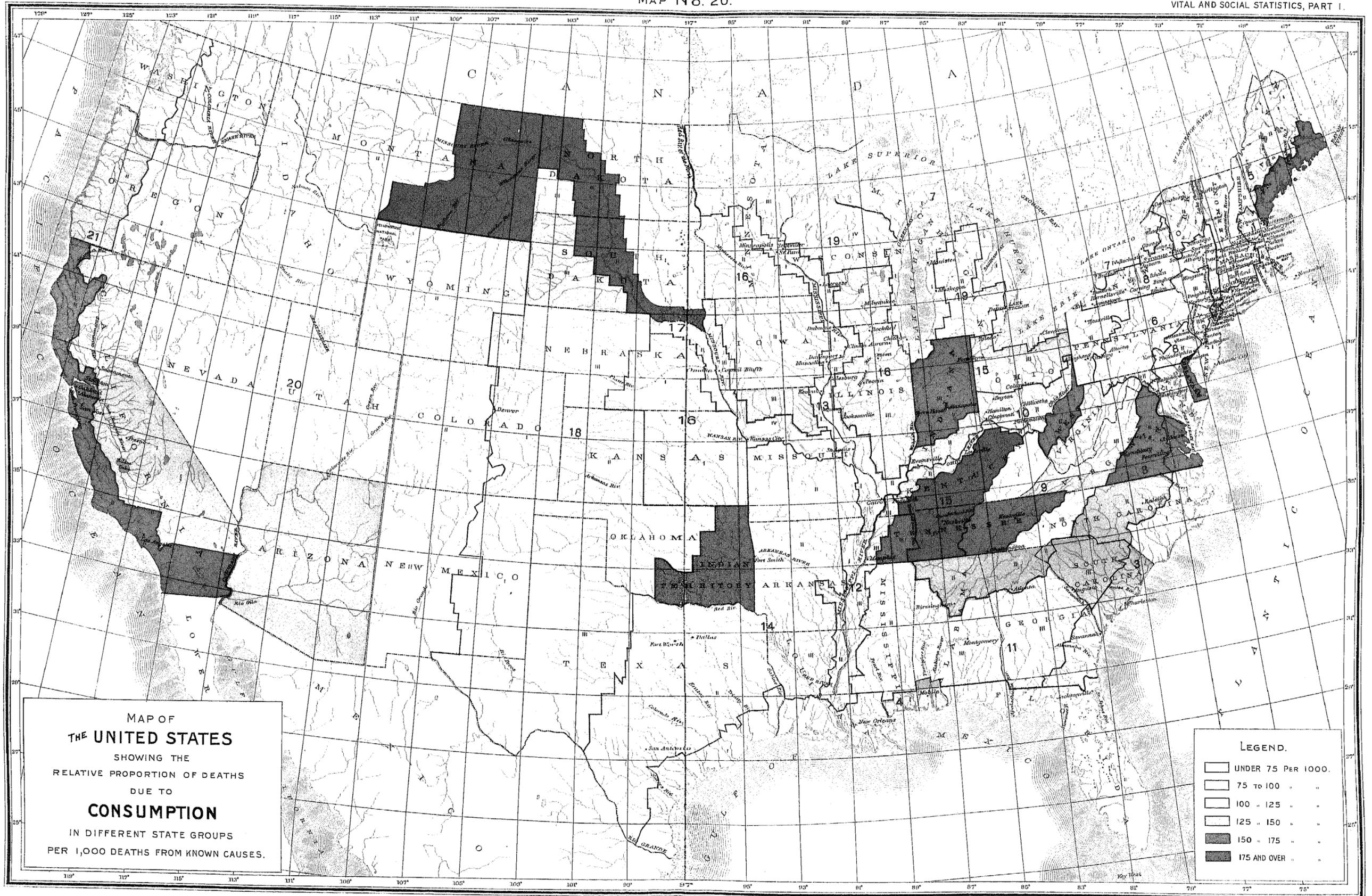
This table shows that in the United States as a whole the proportion of deaths of males due to consumption per 1,000 from all causes was 171.60. The proportion was below the average for the professional class (157.84), the mercantile and trading class (167.76), and the class engaged in agriculture, transportation, and other outdoor occupations (137.54); and was above the average for all other classes, being highest in the clerical and official class (260.60).

In the registration states the proportion of deaths due to consumption per 1,000 deaths from all causes among males engaged in the specified occupations was 202.13; it was below the average for those in the mercantile and trading class (167.74), in which it was almost identical with the proportion for the United States as a whole; and for those engaged in agriculture, transportation and other outdoor occupations (133.44); and was above the average in all other classes. The greatest proportion in this area, as in the United States, occurred in the clerical and official class (285.49).

The following table shows, for the United States, the registration area and some of its subdivisions, and for the remainder of the United States the proportion of deaths due to consumption per 1,000 deaths from all causes among females engaged in each specified occupation:

OCCUPATIONS.	United States.	Registration area.	REGISTRATION STATES.			Registration cities in other states.	Remainder of the United States.
			Total.	Cities.	Rural.		
All occupations.....	233.56	230.49	230.72	265.63	188.44	238.88	230.79
Musicians.....	369.89	250.60	266.87	315.79	.....	230.77	409.09
Teachers.....	359.04	301.84	302.79	345.07	247.71	300.00	369.66
Accountants.....	366.91	391.81	412.28	400.00	500.00	350.88	327.10
Laundresses.....	219.81	216.46	212.50	224.22	58.82	219.44	274.80
Nurses.....	144.85	133.13	108.11	134.92	50.85	166.07	154.43
Servants.....	220.92	214.87	210.67	237.09	163.28	225.57	224.02
Mill and factory operatives.....	391.60	404.73	399.21	393.23	402.01	459.79	329.61
Milliners, dressmakers, etc.....	321.83	324.59	317.28	318.59	313.83	340.56	344.17

It will be seen from this table that there was very little variation in the proportion of deaths due to consumption per 1,000 deaths from all causes among females engaged in all selected occupations in the different areas. The average proportion of deaths due to this cause among females in selected occupations in the United States was 233.56. In the registration area the proportion was 230.49, and in the nonregistration area it was 230.79. The greatest proportion of deaths among females due to this cause in the United States occurred among mill and factory operatives (391.60), musicians and teachers of music (369.86), and accountants, bookkeepers, clerks, and copyists (366.91); and the least proportion among nurses and midwives (144.85) and servants (220.92).



# CAUSES OF DEATH.

331

## SCROFULA AND TABES.

The total number of deaths reported as due to scrofula and tabes in the United States during the census year was 4,121, of which 2,071 were of males and 2,050 of females. In the registration area the number of deaths reported as due to these diseases was, males, 651; females, 658; total, 1,309, giving a death rate of 6.66 per 100,000 of population.

The following table shows, for the registration area and some of its subdivisions, the death rates from scrofula and tabes during the census year in each of four age groups per 100,000 population, of corresponding ages, with distinction of sex:

AREAS.	UNDER 5 YEARS.			5 TO 15 YEARS.			15 TO 45 YEARS.			45 YEARS AND OVER.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
Registration area.....	31.84	33.20	30.45	3.33	3.31	3.33	3.36	2.99	3.72	5.62	5.56	5.48
Cities.....	36.64	38.20	35.05	3.58	3.73	3.43	3.57	3.20	3.95	5.69	5.97	4.24
States.....	28.07	27.58	28.58	2.44	2.42	2.46	2.41	1.97	2.83	4.92	4.35	5.45
Cities.....	30.24	35.00	37.40	2.41	2.72	2.11	2.31	1.79	2.81	3.53	4.02	3.08
Rural.....	14.07	14.80	13.32	2.48	1.99	2.90	2.57	2.28	2.87	6.43	4.70	8.14
Cities in nonregistration states.....	30.99	40.87	33.03	4.60	4.01	4.58	4.73	4.43	5.04	6.73	7.02	5.59
Cities of 100,000 population and upward.....	35.77	36.65	34.67	2.49	2.50	2.49	3.15	2.77	3.54	4.09	4.66	3.53
Metropolitan district.....	28.05	28.48	27.61	0.80	1.28	0.82	1.48	1.89	1.50	2.78	1.48	3.93

It will be seen from this table that the highest death rate from these causes occurred in children under 5 years of age, and that in this group it was a little higher for males (33.20) than for females (30.45), and more than twice as high in the cities of the registration states (36.24) as in the rural districts of the same states (14.07). In children from 5 to 15 years of age the death rate from these diseases in males (3.31) was about the same as for females (3.33), and the death rate in the rural districts (2.48) was about the same as in the cities in the registration states (2.41). In the age group 45 years of age and over the death rate in the rural districts (6.43) was decidedly higher than it was in the cities of the registration states (3.53).

The following table shows, for each of the registration states and for their sum, the death rates from scrofula and tabes during the census year per 100,000 of population, with distinction of sex, and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total.....	5.44	6.00	4.57	5.00	5.85	3.90	5.73	6.15	5.10
Connecticut.....	6.30	6.44	6.19	6.40	8.54	5.06	6.11	4.43	7.92
Delaware.....	2.37	3.26	1.87	3.51	8.25	3.65	1.21	3.27	.....
District of Columbia.....	12.59	12.59	.....	11.86	11.86	.....	13.24	13.24	.....
Massachusetts.....	7.28	7.58	6.30	6.99	7.24	6.17	7.56	7.90	6.42
New Hampshire.....	7.97	6.33	8.05	6.97	7.07	6.69	8.95	5.14	10.64
New Jersey.....	5.33	6.23	4.15	4.86	5.92	3.49	5.80	6.53	4.83
New York.....	4.15	4.50	3.49	3.80	4.40	2.75	4.50	4.66	4.25
Rhode Island.....	8.39	9.50	6.88	6.55	7.30	5.54	10.14	11.52	8.19
Vermont.....	5.41	4.14	4.60	6.50	14.76	5.78	4.29	13.56	3.37

It will be seen from this table that the highest death rate from scrofula and tabes occurred in the District of Columbia (12.59), which was due mainly to the large proportion of colored population in that area. Excluding this, the death rate from these diseases was highest in Rhode Island (8.39), and lowest in Delaware (2.37). In the rural districts, it was highest in New Hampshire (8.65). It was nearly the same among males (5.09) as among females (5.78).

## VITAL AND SOCIAL STATISTICS.

The combined relations of age and race to the death rates from scrofula and tabes are indicated in the following table showing the number of deaths in each of four age groups, and the death rates per 100,000 population of corresponding ages, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the State of New Jersey for the census year.

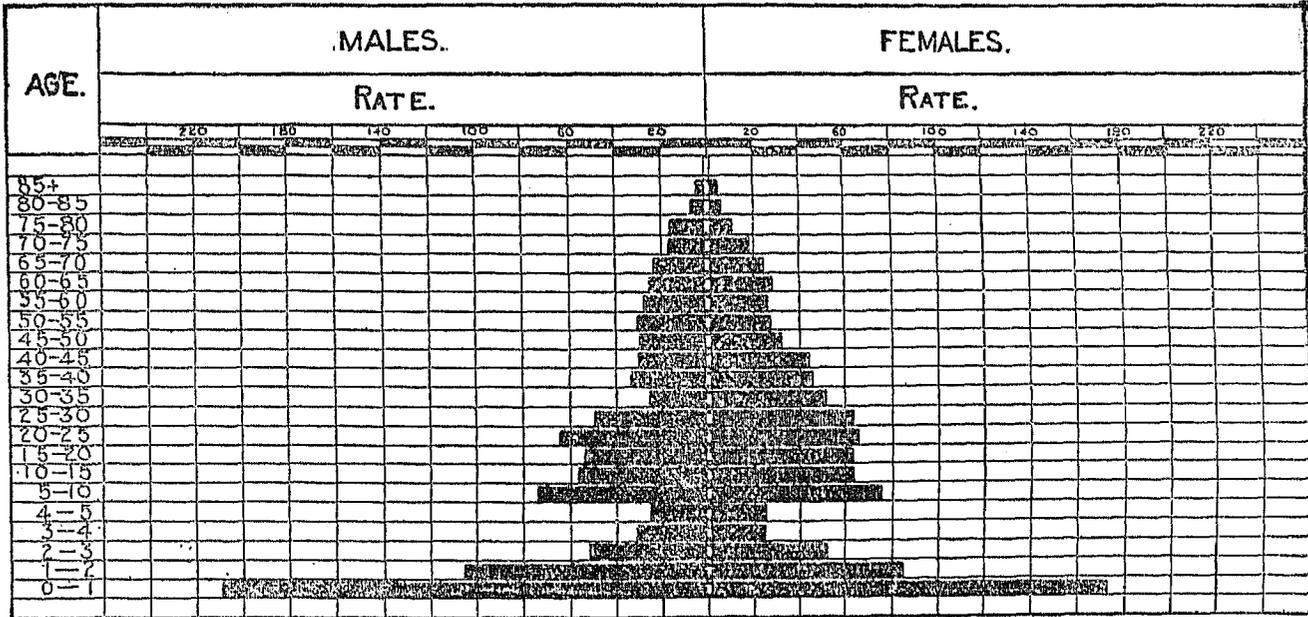
COLOR AND BIRTHPLACES OF MOTHERS.	UNDER 5 YEARS.		5 TO 15 YEARS.		15 TO 45 YEARS.		45 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
White .....	148	30.52	11	1.27	53	2.21	23	3.46
Colored.....	23	178.56	7	21.60	5	4.85	1	3.52
Birthplaces of mothers (white):								
United States.....	74	29.96	7	1.71	19	2.48	12	4.00
Ireland .....	20	30.29	1	0.60	11	1.77	7	3.46
Germany .....	26	32.41			9	1.64		
Italy.....	7	46.56						

It will be seen from this table that in children under 5 years of age the death rate from scrofula and tabes was nearly six times as high among the colored (178.56) as among the whites (30.52), and this difference was still greater among the age group from 5 to 15 (colored, 21.60; whites, 1.27). Among the whites, in children under 5 years of age the death rate was highest in the children of mothers born in Italy (46.56) and lowest in the children of mothers born in the United States (29.96).

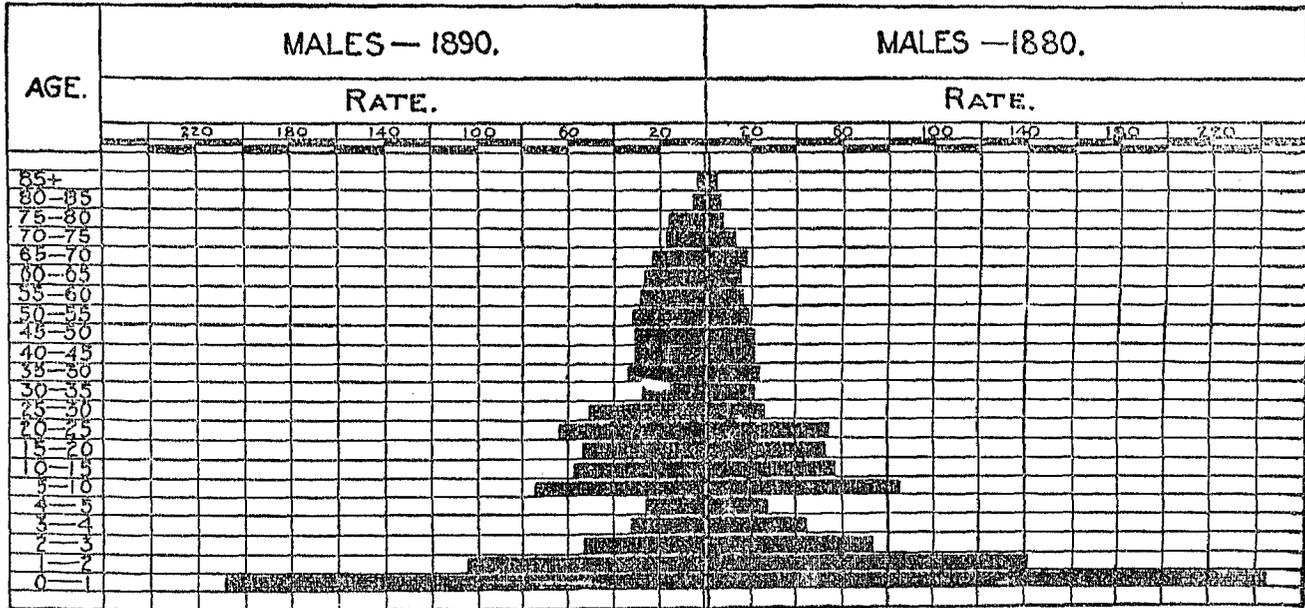
The following table shows the proportion of deaths due to scrofula and tabes, at certain ages and groups of ages, per 1,000 deaths at all ages from these causes, in 1880 and in 1890, with distinction of sex:

AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Total under 5 years..	531.39	493.15	425.17	350.27	35 to 40 years.....	23.59	29.03	34.99	44.72
Under 1 year.....	246.30	230.24	209.91	173.96	40 to 45 years.....	21.19	22.18	30.61	42.26
1 year.....	140.34	124.19	104.47	84.03	45 to 50 years.....	21.19	23.79	30.13	32.43
2 years.....	73.97	74.10	52.96	52.58	50 to 55 years.....	19.99	21.37	31.10	27.03
3 years.....	43.58	37.50	32.07	22.11	55 to 60 years.....	15.99	20.97	28.67	26.04
4 years.....	27.19	27.02	25.75	23.59	60 to 65 years.....	15.59	13.71	24.30	23.50
5 to 10 years.....	85.07	81.85	73.80	70.06	65 to 70 years.....	18.79	14.92	22.84	23.10
10 to 15 years.....	57.98	66.53	58.31	62.41	70 to 75 years.....	13.59	13.71	17.93	18.18
15 to 20 years.....	53.18	53.23	54.42	62.41	75 to 80 years.....	6.80	6.85	17.01	10.81
20 to 25 years.....	54.38	56.83	63.65	65.85	80 to 85 years.....	6.40	6.45	6.32	5.41
25 to 30 years.....	26.79	39.52	49.56	62.90	85 to 90 years.....	2.80	2.42	2.43	3.44
30 to 35 years.....	23.19	33.06	27.21	51.11	90 to 95 years.....	0.80	0.40	1.46	0.40
					95 years and over.....	0.40			

The comparative proportions of deaths of males and females in each age group due to scrofula and tabes during the census year are shown graphically in the following diagram:



The comparative proportions of deaths of males in each age group due to scrofula and tabes in 1880 and in 1890 are shown in the following diagram:



The irregularity of these diagrams indicates the uncertainty and small value of the ratios in the table to which they correspond.

## VITAL AND SOCIAL STATISTICS.

The following table shows, for each grand group, the proportion of deaths due to scrofula and tabes during the census year per 1,000 deaths from known causes, with distinction of sex and of rural districts and cities:

GRAND GROUPS.	Total.	RURAL.		CITIES.	
		Males.	Females.	Males.	Females.
1. North Atlantic Coast region.....	3.94	3.74	5.62	3.03	4.13
2. Middle Atlantic Coast region.....	2.47	3.12	3.50	2.21	2.35
3. South Atlantic Coast region.....	8.12	8.09	5.92	10.24	11.81
4. Gulf Coast region.....	2.75	2.10	3.42	3.43	2.03
5. Northeastern hills and plateaus.....	3.83	3.73	4.06	4.95	2.44
6. Central Appalachian region.....	2.98	3.59	2.72	1.91	2.44
7. Region of the Great Northern Lakes.....	3.22	2.84	5.01	2.42	3.53
8. Interior plateau.....	5.06	5.31	7.81	3.69	3.73
9. Southern Central Appalachian region.....	11.76	11.03	12.60	9.37	8.38
10. Ohio River belt.....	7.02	8.81	8.24	4.05	4.40
11. Southern Interior plateau.....	8.17	8.06	8.62	1.55	4.09
12. South Mississippi River belt.....	5.16	5.32	4.45	6.69	6.36
13. North Mississippi River belt.....	4.00	4.06	5.08	3.76	3.46
14. Southwest Central region.....	4.82	5.20	4.38	4.32	5.43
15. Central region, plains and prairies.....	8.89	8.97	9.30	6.33	7.85
16. Prairie region.....	3.72	3.27	4.26	4.43	2.07
17. Missouri River belt.....	5.62	6.36	6.29	3.60	4.82
18. Region of the Western plains.....	4.80	6.19	6.05	1.90	.....
19. Heavily timbered region of the Northwest.....	4.33	4.24	4.43	.....	.....
20. Cordilleran region.....	4.05	4.11	4.25	.....	3.86
21. Pacific Coast region.....	3.79	4.35	4.51	3.05	3.77

It will be seen from this table that the proportion of deaths due to scrofula and tabes to deaths from known causes was greatest in the south and west, which is probably due to a considerable extent to the fact that these diseases are more prevalent among the colored than among the whites.

## HYDROCEPHALUS.

The great majority of the deaths reported as due to hydrocephalus were probably due to tubercular meningitis. The total number thus reported in the United States during the census year was 4,338, of which 2,468 were of males and 1,870 of females. In the registration area the number of deaths reported as due to this disease was, males, 1,724; females, 1,309; total, 3,033, giving a death rate of 15.43 per 100,000 of population.

The following table shows, for the registration area and some of its subdivisions, the death rates from hydrocephalus during the census year in each of four age groups per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	UNDER 1 YEAR.			UNDER 5 YEARS.			5 TO 15 YEARS.			15 YEARS AND OVER.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
Registration area.....	315.12	370.02	253.11	125.07	141.41	108.39	8.54	9.07	8.00	1.42	1.70	1.15
Cities.....	343.02	409.32	275.03	138.65	158.22	118.73	9.83	10.98	8.69	1.59	2.01	1.19
States.....	377.13	442.33	310.16	146.79	169.75	129.48	9.62	9.43	9.83	1.43	1.76	1.11
Cities.....	470.20	564.01	374.18	193.50	222.81	163.88	13.13	13.76	12.50	1.78	2.44	1.17
Rural.....	203.68	216.66	190.25	74.82	79.55	69.95	4.39	3.69	5.74	0.89	0.77	1.01
Cities in nonregistration states.....	231.77	274.23	188.15	91.24	102.76	70.44	6.96	8.56	5.87	1.41	1.62	1.20
Cities of 100,000 population and upward.....	370.06	462.20	265.66	152.32	174.87	120.34	10.36	11.73	8.99	1.67	1.95	1.39
Metropolitan district.....	570.83	696.75	459.61	227.68	266.73	188.31	12.03	13.11	10.94	2.17	3.00	1.86

It will be seen from the preceding table that the highest death rate from hydrocephalus occurred in children under 1 year of age (315.12), and that the rate for those 15 years of age and over (1.42) was insignificant. In infants under 1 year of age the death rate from this cause was higher in males (370.62) than in females (258.11), and in the registration states it was more than twice as high in the cities (470.20) as in the rural districts (203.63). It was highest of all in the metropolitan district (579.83).

The combined relations of age and race to the death rates from hydrocephalus are indicated in the following table showing the number of deaths in each of four age groups, and the death rates per 100,000 population of corresponding ages, with distinction of color, and, for the whites, of birthplaces of mothers, the data being derived from a combination of the returns from Boston, Brooklyn, Cincinnati, New York city, the District of Columbia, and the state of New Jersey for the census year:

COLOR AND BIRTHPLACES OF MOTHERS.	UNDER 1 YEAR.		UNDER 5 YEARS.		5 TO 15 YEARS.		15 YEARS AND OVER.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
White .....	593	566.29	1,091	224.97	109	12.03	72	2.25
Colored .....	24	669.46	41	261.46	8	24.69	4	3.04
Birthplaces of mothers (white):								
United States .....	301	571.79	533	215.78	48	11.74	12	1.13
England and Wales .....	15	412.31	29	169.92			5	3.08
Ireland .....	84	588.11	168	254.45	25	16.59	18	2.19
Germany .....	98	585.77	158	196.95	22	13.07	17	2.33
Italy .....	15	405.84	35	232.79	2	11.90	3	5.66

It will be seen from this table that the death rate from this disease in children under 5 years of age was higher among the colored (261.46) than among the whites (224.97), and that among the whites it was highest in the children of mothers born in Ireland (254.45) and the children of mothers born in Italy (232.79); and lowest in the children of mothers born in England and Wales (169.92) and the children of mothers born in Germany (196.95), the rate for the children of mothers born in the United States being 215.78 per 100,000 of population under 5 years of age.

The following table shows the proportion of deaths due to hydrocephalus, at certain ages and groups of ages, per 1,000 deaths at all ages from this cause in 1880 and in 1890, with distinction of sex:

AGES.	1880		1890		AGES.	1880		1890	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
Total under 5 years..	868.56	851.28	816.04	807.96	45 to 50 years .....	3.35	4.10	4.48	2.69
Under 1 year .....	458.35	431.28	444.04	410.97	50 to 55 years .....	3.35	7.54	3.26	3.77
1 year .....	229.38	236.41	216.52	213.02	55 to 60 years .....	2.93	2.05	3.26	2.69
2 years .....	104.23	98.97	75.70	91.98	60 to 65 years .....	2.93	2.56	2.85	1.08
3 years .....	59.65	57.44	59.06	45.19	65 to 70 years .....	1.67	2.05	2.85	1.61
4 years .....	25.95	27.18	29.71	40.80	70 to 75 years .....	3.77	1.54	3.20	1.08
5 to 10 years .....	56.51	72.82	80.59	95.75	75 to 80 years .....	2.00	2.50	2.04	0.54
10 to 15 years .....	18.84	17.95	21.16	27.43	80 to 85 years .....	1.67	1.54	0.41	1.08
15 to 20 years .....	7.53	8.72	14.25	12.91	85 to 90 years .....		0.51	0.41	0.54
20 to 25 years .....	5.44	8.21	12.62	13.45	90 to 95 years .....	0.42	0.51		
25 to 30 years .....	5.44	5.64	12.62	8.07	95 years and over .....		0.51		
30 to 35 years .....	4.60	7.18	5.29	6.46	15 to 45 years .....	33.99	38.47	59.44	53.80
35 to 40 years .....	6.70	5.13	7.33	9.68	45 to 65 years .....	12.56	10.25	13.85	10.23
40 to 45 years .....	4.19	3.69	7.33	3.23	65 years and over .....	9.63	9.22	8.97	4.65

It will be seen from this table that about 80 per cent of all the cases of deaths from hydrocephalus which occurred in 1890 were among children under 5 years of age, the proportion being somewhat less than in 1880, when it was about 86 per cent.

The following table shows, for each grand group, the proportion of deaths due to hydrocephalus during the census year per 1,000 deaths from known causes, with distinction of sex and of rural districts and cities:

GRAND GROUPS.	Total.	RURAL.		CITIES.	
		Males.	Females.	Males.	Females.
1. North Atlantic Coast region.....	10.70	7.48	8.12	12.76	11.64
2. Middle Atlantic Coast region.....	9.71	5.69	5.62	11.70	9.41
3. South Atlantic Coast region.....	2.05	3.11	0.63	2.16	2.81
4. Gulf Coast region.....	2.47	2.87	0.91	3.43	2.54
5. Northeastern hills and plateaus.....	5.78	5.03	4.97	9.70	4.89
6. Central Appalachian region.....	4.39	4.07	4.10	5.73	5.18
7. Region of the Great Northern Lakes.....	4.92	2.92	3.50	6.13	5.29
8. Interior plateau.....	3.93	2.51	2.22	6.29	4.30
9. Southern Central Appalachian region.....	2.65	2.46	2.73	1.78	4.71
10. Ohio River belt.....	5.52	3.92	4.43	7.66	8.47
11. Southern Interior plateau.....	1.39	1.02	1.25	.....	.....
12. South Mississippi River belt.....	1.99	1.33	2.34	2.23	4.77
13. North Mississippi River belt.....	5.68	4.28	3.83	8.36	6.92
14. Southwest Central region.....	2.87	3.38	2.11	4.33	4.34
15. Central region, plains and prairies.....	3.62	3.56	2.82	7.23	4.44
16. Prairie region.....	3.17	3.75	2.44	3.54	5.18
17. Missouri River belt.....	3.88	3.07	3.02	6.29	4.82
18. Region of the Western plains.....	3.86	3.01	2.87	5.32	5.07
19. Heavily timbered region of the Northwest.....	3.58	3.30	3.89	.....	.....
20. Cordilleran region.....	3.05	2.66	3.48	5.25	3.80
21. Pacific Coast region.....	4.45	4.12	5.20	4.57	4.04

It will be seen from this table that the greatest proportion of deaths due to hydrocephalus occurred in the North Atlantic Coast region, both in the rural districts and in the cities, and next to this in the Middle Atlantic Coast region.

The following table shows, for each of the registration states and for their sum, the death rates from hydrocephalus during the census year per 100,000 of population, with distinction of sex and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total.....	17.46	23.45	8.30	19.95	27.77	8.39	15.02	19.34	8.20
Connecticut.....	14.20	18.37	11.24	14.88	21.67	10.13	13.54	15.18	12.35
Delaware.....	3.56	.....	5.60	2.34	.....	3.65	4.82	.....	7.65
District of Columbia.....	14.76	14.76	.....	18.25	18.25	.....	11.59	11.59	.....
Massachusetts.....	22.56	26.01	11.26	25.10	20.33	11.58	20.15	22.01	10.94
New Hampshire.....	10.62	10.62	10.53	8.04	5.76	8.93	13.16	15.42	12.16
New Jersey.....	21.83	24.67	16.93	24.00	27.14	19.96	18.64	22.25	13.85
New York.....	16.42	23.83	4.45	19.72	20.53	4.99	13.17	18.36	4.51
Rhode Island.....	20.55	22.99	17.19	22.02	26.08	16.63	19.16	20.16	17.74
Vermont.....	5.72	14.14	4.93	5.91	22.15	4.40	5.62	6.78	5.39

This table shows that the death rates from hydrocephalus were much higher in the cities than in the rural districts in the aggregate, and in every state except Delaware. The rate was highest in Massachusetts (22.56), New Jersey (21.32), and Rhode Island (20.55); and lowest in Delaware (3.56), Vermont (5.72), and New Hampshire (10.62).

#### CANCER AND TUMOR.

The total number of deaths reported as due to cancer in the United States during the census year was 18,536, of which 6,958 were of males and 11,578 were of females. The total number of deaths reported as due to tumor was 2,448. As it is impossible from the census data to distinguish the cases of tumor from those of cancer, they will be considered together in the first part of the following discussion, the total of deaths attributed to the two in the United States being 20,984. In the registration states the number of deaths reported as due to cancer was, males, 3,255; females, 6,155; and to tumors, males, 459; females, 563, making a total of 10,437 cases, giving a death rate from this cause of 53.09 per 100,000 of population. In 1890 the death rate per 100,000 of population from cancer in England and Wales was 67.5, in Ireland 45.7, in Scotland 60.6, in Italy 42.8, in Austria 52.8, and in Prussia 43.1.

During the 10 years 1880 to 1889 the death rates from cancer, per 100,000 population, were in England and Wales 57.5, in Ireland 39.5, in Scotland 57.0, in Norway 49.9, in Prussia 35.9, in Austria 42.9, in Saxony 73.2, in Massachusetts 54.2, in Connecticut 42.6, in Rhode Island 52.0, and in New Jersey 39.0.

The following table shows, for the registration area and some of its subdivisions, the death rates from cancer and tumor during the census year per 100,000 of population, with distinction of color, sex, general nativity, and parental nativity:

AREAS.	Aggre- gate.	WHITES.							COLORED.		
		Total.	Males.	Females.	Native born.			Foreign born.	Total.	Males.	Females.
					Total.	Both parents native.	One or both parents foreign.				
Registration area.....	53.09	53.93	38.83	68.96	39.60	58.62	17.85	93.34	36.65	19.15	53.00
Cities.....	52.18	53.11	38.45	67.61	34.52	55.80	17.28	95.00	37.12	18.25	55.22
States.....	56.29	56.77	38.98	74.19	45.02	62.08	18.80	89.00	35.65	19.66	50.77
Cities.....	56.49	57.01	38.29	74.87	40.03	62.45	18.34	92.43	37.98	15.60	56.80
Rural.....	55.99	56.42	39.99	73.12	52.40	61.70	20.06	78.21	31.65	28.21	35.95
Cities in nonregistration states.....	48.20	49.27	38.01	60.20	29.41	41.42	14.86	99.82	37.05	18.00	54.75
Cities of 100,000 population and upward.....	52.90	53.60	.....	.....	31.12	52.32	17.41	99.23	41.01	.....	.....
Metropolitan district, 6 years.....	53.35	53.54	36.95	70.34	29.25	50.92	15.16	94.27	42.78	20.50	58.44

It will be seen from this table that the death rate from cancer and tumor was much higher among the whites (53.93) than among the colored (36.65); that it was much higher among females (whites, 68.96; colored, 53.60) than it was among males (whites, 38.83; colored, 19.15), and that the difference between the death rates of the colored and the whites was much greater in males than it was in females. The death rate from these diseases was much higher among the foreign born whites (93.34) than it was among the native born whites (39.60), which is mainly due to the much greater proportion of persons of advanced age in the foreign born population; among the native born whites having both parents native it was much higher (58.62) than it was among those having one or both parents foreign born (17.85). In the registration states the death rate from these diseases was slightly higher in the cities (56.49) than it was in the rural districts (55.99). In the cities of 100,000 population and upward it was slightly below the average for the registration area (52.99). The comparatively small difference in the death rates in the cities and in the rural districts is probably more than accounted for by the fact that many persons suffering from these diseases go from the rural districts to the large cities to have the benefit of the advice of distinguished surgeons and of hospital treatment.

The following table shows, for each of the registration states and for their sum, the death rates from cancer and tumor during the census year per 100,000 of population, with distinction of sex and of cities and rural districts:

REGISTRATION STATES.	AGGREGATE.			MALES.			FEMALES.		
	Total.	Cities.	Rural.	Total.	Cities.	Rural.	Total.	Cities.	Rural.
Total.....	56.29	56.49	55.99	38.54	37.71	39.77	73.64	74.88	72.48
Connecticut.....	55.21	52.52	57.12	34.91	32.83	36.36	75.12	71.49	77.75
Delaware.....	35.02	39.07	32.69	26.88	29.21	25.57	43.42	48.09	40.15
District of Columbia.....	49.91	49.91	.....	29.20	29.20	.....	63.70	68.70	.....
Massachusetts.....	60.86	63.16	78.99	44.22	39.83	58.27	88.25	84.06	99.25
New Hampshire.....	69.68	51.58	77.06	43.42	24.94	50.58	95.28	75.37	104.12
New Jersey.....	47.55	48.36	46.48	31.91	30.00	33.59	63.11	65.77	59.57
New York.....	53.12	56.05	48.38	37.56	39.45	34.60	68.46	72.00	62.53
Rhode Island.....	63.10	62.98	63.26	43.45	42.76	44.35	81.70	81.58	81.87
Vermont.....	75.81	53.01	77.93	57.29	44.29	58.42	95.04	61.02	98.42

The comparative death rates due to cancer and tumor in the different counties of the registration states per 100,000 of population are shown in map No. 21.

It will be seen from the preceding table that in the registration states the death rate from cancer and tumor was highest in Vermont (75.81) and in New Hampshire (69.58), and was lowest in Delaware (35.02) and in the District of Columbia (49.91). It was higher in the rural districts than in the cities in all the states, except Delaware, New Jersey, and New York. The highest death rate of all from these causes was among females in the rural districts in New Hampshire (104.12). The number of deaths from these diseases among the colored in the individual states were for the most part too few to make the ratios derivable therefrom of any value, but it is noteworthy that the death rate from these diseases among the colored was much higher in the District of Columbia than it was in Delaware.

Of the 8,018 deaths from cancer and tumor in the whites in the registration area during the census year 2,826 were children of mothers born in the United States, 1,552 children of mothers born in Ireland, 1,176 children of mothers born in Germany, 396 children of mothers born in England and Wales, 196 children of mothers born in Canada, 132 children of mothers born in Scotland, 86 children of mothers born in Scandinavia, 62 children of mothers born in France, 42 children of mothers born in Italy, 23 children of mothers born in Bohemia, and 12 children of mothers born in Hungary.

The following table shows, for the registration area and some of its subdivisions, the death rates from cancer and tumor among the whites during the census year per 100,000 of white population, with distinction of birthplaces of mothers:

AREAS.	United States.	England and Wales.	Ireland.	Scotland.	France.	Germany.	Canada.	Scandinavia.	Hungary.	Bohemia.	Italy.	Other foreign countries.
Registration area.....	40.75	56.70	58.35	64.76	75.62	55.33	29.13	35.28	37.40	56.50	29.99	41.63
Cities.....	30.73	54.74	60.67	63.19	70.59	56.97	28.75	38.60	43.00	58.58	34.18	43.68
States.....	45.17	55.61	58.52	60.28	81.01	58.06	28.88	27.65	27.78	45.01	27.88	37.55
Cities.....	49.02	52.40	61.38	62.00	78.03	61.47	28.26	32.40	33.17	49.62	32.41	39.78
Rural.....	41.98	62.22	40.00	53.75	95.13	43.35	29.85	16.41	.....	.....	4.97	25.11
Cities in nonregistration states.....	19.50	61.13	57.20	84.38	61.50	50.46	31.21	43.04	73.40	63.60	44.15	52.49
Cities of 100,000 population and upward..	39.33	57.47	65.40	83.02	78.41	59.83	37.15	39.25	44.98	57.22	35.87	43.21

It will be seen from this table that among the whites the death rate in the registration area was highest among those whose mothers were born in France (75.62), in Scotland (64.76), and in Ireland (58.35); and that it was lowest among those with mothers born in Canada (29.13), in Italy (29.99), and in Scandinavia (35.28). It was comparatively low in the children of mothers born in the United States (40.75), and in this class it was especially low in cities of nonregistration states (19.50).

The following table shows, for the registration area and some of its subdivisions, the death rates from cancer and tumor during the census year in each of five age groups per 100,000 population of corresponding ages, with distinction of sex:

AREAS.	UNDER 5 YEARS.			5 TO 15 YEARS.			15 TO 45 YEARS.			45 TO 65 YEARS.			65 YEARS AND OVER.		
	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.
Registration area.....	5.04	5.93	4.13	1.55	1.60	1.50	21.36	12.65	30.00	171.32	118.48	223.64	367.89	317.12	413.20
Cities.....	5.33	6.28	4.35	1.70	1.90	1.68	23.04	13.82	32.12	186.77	132.64	240.53	404.04	355.89	444.46
States.....	4.84	5.82	3.83	1.08	1.08	1.09	20.70	11.12	29.98	164.17	105.61	220.55	364.06	308.92	414.07
Cities.....	5.33	6.53	4.12	1.28	1.36	1.21	23.83	12.70	34.29	188.80	123.54	259.51	427.00	370.30	472.59
Rural.....	3.99	4.63	3.33	0.79	0.66	0.92	15.24	8.47	22.15	133.65	83.82	182.68	317.62	269.58	365.97
Cities in nonregistration states.....	5.32	6.07	4.55	2.23	2.37	2.10	22.32	14.80	30.04	184.63	141.60	223.60	378.23	340.11	410.00
Cities of 100,000 population and upward.	5.33	6.55	4.19	2.06	2.28	1.94	23.98	14.82	33.17	200.46	147.98	253.67	425.77	379.63	463.58
Metropolitan district.....	4.67	6.02	3.31	1.44	1.60	1.29	24.17	13.90	34.08	212.85	148.65	276.83	411.88	370.21	446.66

It will be seen from this table that the death rates steadily increased with advancing age, being for each 100,000 of those 65 years of age and over, 367.89; for those from 45 to 65 years, 171.32; for those from 15 to 45 years, 21.36; and for those between 5 and 15 years, 1.55. For those under 5 years of age the death rate (5.04) was higher than for those between 5 and 15 years of age, and it was also higher among males (5.93) than among females (4.13). The excessive proportion of deaths in females did not begin until after the age of 15.

