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FREQUENCY AND VOLUME OF DOCTORS' CALLS AMONG MALES AND FEMALES IN 9,000 FAMILIES, BASED ON NATION-WIDE PERIODIC CANVASSES, 1928-31 1

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Studies of medical care in this country have usually been built around the phenomenon of increasing care with ability to pay. relationship of medical care to family income is of such paramount importance from a sociological point of view that other relationships have been neglected. For example, the volume of doctors' calls varies with age, sex, and marital status; the variations of this kind are greater for home calls and hospital days than for office calls. Children under 15 years of age are seldom taken to nonmedical practitioners, but above 20 years the use of this type of practitioner increases in frequency, particularly among women, with a peak at 45 to 64 years and a decline thereafter. Or again, the average uncomplicated case of typhoid fever receives 20.1 calls and of pneumonia 9.6 calls, as compared with 1.8 calls for an attended uncomplicated case of measles. and 1.6 calls for corvza. Although four-fifths of the illnesses in this study were attended by a doctor, 40 percent received only a single call, presumably for diagnosis or for diagnosis and a prescription.

¹ From Statistical Investigations, Division of Public Health Methods, National Institute of Health.

This is the sixteenth of a series of papers on sickness and medical care in this group of families $(1\cdot15)$. The survey of these families was organized and conducted by the Committee on the Costs of Medical Care, the tabulation was done under a cooperative arrangement between the Committee and the Public Health Service. Committee publications based on the results deal primarily with costs and Public Health Service publications primarily with the incidence of illness and the extent and kind of medical care, without regard to cost. As costs are meaningless without some knowledge of the extent and nature of the service received, there is inevitably some overlapping. The Committee staff, particularly Dr. I. S. Falk and Miss Margaret Klem, cooperated in the tabulation of the data.

Special thanks are due to Dr. Mary Gover, who assisted in the analysis, to Mrs. Lily Vanzee Welch, who was in immediate charge of tabulating the data, and to other members of the statistical staff of the Public Health Service for advice and assistance in the preparation of the study.

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In contrast to sociological studies of medical care that consider income as the paramount variable, an investigation from these other points of view might be described as a quantitative study of medical care from the standpoint of epidemiology and clinical medicine. Every disease has certain epidemiological characteristics which can be determined only by its mass study in a population group; to such usual characteristics as age and sex incidence, seasonal or chronological variation, geographic spread, and duration in days of disability, in bed, or in a hospital, there might be added socio-epidemiological characteristics such as the proportion of illnesses that come to the attention of a physician and the calls or hospital days commonly received in the treatment of a case. Just as age distribution of a given disease varies under different circumstances, medical care of illness may be expected to vary under urban and rural conditions. with income or ability to purchase care, and with different systems of purchasing medical care.

I. SOURCE AND CHARACTER OF DATA

In the study of illness in a group of families in 18 States ² that was made by the Committee on the Costs of Medical Care (16) and the United States Public Health Service, the record for each illness included all service received from physicians and other practitioners within the 12-month study period. Among the items recorded were type of attendant and the number of home, office, and clinic calls. Thus, data on doctors' calls in the whole canvassed population are available for the survey year.

The composition and characteristics of the group of 8,758 white families which were kept under observation for 12 consecutive months in the years 1928-31 have been considered in some detail in the first report in the series (1). These families, including a total of 39,185 individuals, resided in 130 localities in 18 States representing all geographic sections. Every size of community was included, from metropolitan districts to small industrial and agricultural towns and rural unincorporated areas.³ With respect to income, the distribution was reasonably similar to the estimated distribution of the general population of the United States at the time of the survey.

Each family was visited at intervals of 2 to 4 months for a period long enough to obtain a sickness record for 12 consecutive months.

³ The 18 States sampled and the number of canvassed families were as follows: California (890), Colorado (386), Connecticut (100), District of Columbia (99), Georgia (544), Illinois (463), Indiana (494), Kansas (301), Massachusetts (287), Michigan (329), Minnesota (224), New York (1,710), Ohio (1,148), Tennessee (212), Virginia (412), Washington (551), West Virginia (318), Wisconsin (290). Further details about the distribution of the canvassed population are included in a preceding paper (1).

³ Every community that was included in the study had either a local health department or some other organization employing a visiting nurse or both; therefore, the most rural areas with no organized community services are not represented.

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On the first call a record was made of the number of members of the household, together with sex, age, marital status, occupation, and other facts about each person. On succeeding visits the canvasser recorded all illness that had occurred since the preceding call, with such pertinent facts about each case as the date of onset; whether attended by a doctor and if so the type of each attendant in such terms as private physician, surgeon or other specialist, clinic physician. dentist, chiropodist, osteopath, chiropractor, midwife, or other: number of calls on the case by each practitioner, with separation into home and office for physicians; the total duration of symptoms, of disability, of confinement to bed and to a hospital; and the nature and extent of nursing service. Data about cases that were still sick at the preceding visit were brought up to date and when completed the termination was entered. Thus there are available certain facts about the observed population, the number of illnesses suffered, and the frequency and volume of doctors' services in connection with those illnesses.

Definition of illness as recorded in survey.—An illness, for the purpose of this study, was defined as any symptom, disorder, or affection which persisted for one or more days or for which medical service 4 was received or medicine purchased. Illness included the results of both disease and injury. What was actually recorded as a case, however, was necessarily influenced not only by the informant's (usually the housewife's) conception of illness but also by her memory. With visits as infrequent as 2 to 4 months, it was inevitable that many of the nondisabling illnesses would be terminated and forgotten before the next visit of the enumerator. However, these minor cases would seldom be attended by a doctor. Also the few but long institutional cases which are largely missed in family surveys 5 would not contribute to the usual home and office medical practice in a general noninstitutional population. It is felt, therefore, that doctor's services as recorded in this study are reasonably complete for the general family population.

Definition of doctor's care as recorded in survey.—An illness was considered as attended if any type of practitioner was called in or con-

⁴ Exclusive of dental services, eye refractions, immunizations, and health examinations rendered when no symptoms were present.

³ The limitations of the house-to-house survey in recording institutional cases was discussed in considerable detail in an earlier paper in this series (14).

No special inquiry was made in this study about mental defectives at home or about persons away from the family throughout the year in such resident institutions as hospitals for the insane, mentally defective, or tuberculous; however, a few such cases were recorded. Physical impairments such as blindness and lost and impaired limbs were not included as sickness unless the defect was treated or otherwise involved some status other than the mere presence of an impairment. These various factors made for a minimum of recorded cases that were sick or disabled or in bed or in a hospital throughout the year of the study. While such cases are always rare as compared with short illnesses, they have an important bearing upon the total volume of medical and hospital care because of their long duration.

sulted about the case, including all hospital cases; the analysis, however, separates attendants into different types. Illnesses with two or more diagnoses were counted as attended if a doctor was called in connection with any diagnosis. Nursing services are tabulated separately; nurses are not included in this analysis of attendants who had primary responsibility for cases, even in the few instances where a nurse was the only attendant. However, a midwife who was the only attendant is counted as a primary attendant because she customarily has charge of a case, without the supervision of a doctor. Thus the attendant refers to anyone who assumes primary charge of a case and disregards the quality of the service because no index of quality was available.

The analysis separates the services of medical doctors (M. D.) from all other types of attendants; cases attended only by the hospital or clinic staff are counted in the group of medically attended cases. The medically attended group is further subdivided into attendance by private physicians in general practice, by specialists, and by clinic physicians. The recorded services of specialists are a minimum or understatement because the only physicians so tabulated are those designated as specialists by the family informant. This method may miss many who are listed in directories as specialists but it has the virtue that any physician so designated is generally recognized in his community as a specialist.

Classification of causes of illness.—In the present study of 8,758 households by periodic visits, the diagnoses as reported by family informants were submitted to the attending physician for confirmation or correction and his diagnosis substituted for the one reported by the family. While not all cases were attended and reports could not be obtained from all attending physicians, the replies indicated that the housewife usually reported with reasonable accuracy the diagnosis which the physician had given to the family.

Considering an illness in the sense of a continuous period of sickness, only 4.3 percent were designated as due to more than one cause. In general, the more important or more serious cause was assigned as primary, except where a disease like pneumonia is commonly recognized as following measles or influenza, in which case the antecedent condition was taken as primary. In this series of papers, rates per 1,000 population for attended cases and doctors' calls on illness from all causes and from broad disease groups are based on sole or primary

⁶ In a few instances the only consultation was by telephone or by some other member of the family going to see the doctor; such cases were counted as attended but no doctor's calls were counted for them. If a doctor treated two or more patients on one call to a family, each patient seen was counted as having a call. See footnotes to table 1 for further details.

⁷ See comparison of diganoses reported by families and by physicians in the Health Survey of 1935-36 (18, table 2).

[•] Further details on the method of classifying the causes of illness are included in the first report in the series (1).

diagnoses only. In computing doctors' calls for specific diseases such as pneumonia, appendicitis, and whooping cough, all cases of the given diagnosis are considered whether it was the sole, primary, or contributory cause of the illness.

Methods of tabulating and computing.—In computing attended cases per 1,000 population, illnesses that originated prior to but caused sickness during the study year are included along with cases having their onset within the period of observation; the inclusion of the illnesses with prior onset seemed necessary to give proper representation to chronic ailments. The only date of onset available was the onset of symptoms (nondisabling or disabling); therefore, prior onset does not necessarily mean prior attendance by a doctor. In 7 percent of the attacks of illness onset was prior to the year; this does not mean that in the other 93 percent onset of the disease always occurred within the year, for the patient may have had preceding attacks of the same chronic disease. For all diagnoses commonly considered as chronic, 33 percent were reported with an onset for this illness prior to the study year, as compared with 3 percent for diagnoses ordinarily considered as acute. A large proportion of the cases of such diseases as tuberculosis, cancer, diabetes, and cardio-renal affections originated prior to the study; a preceding paper shows for each diagnosis the number of illnesses with prior onset (1).

The doctors' calls refer in all instances to those within the 12-month study period. In computing average calls per case, both complete and incomplete cases are included as cases but the calls refer to those within the study year only. The incomplete cases (those with prior onset and those still sick at the last report) usually average considerably longer durations and presumably have more doctors' calls than the complete cases; therefore, average calls per case which excluded cases with prior onset would be biased toward fewer calls. Computation of the annual calls per 1,000 persons includes all calls within the study year, whether the calls pertain to cases that originated within or prior to the year and whether they pertain to cases that had been terminated or were still sick at the last report on the case. Attended cases with an unknown number of calls are put in at the average calls per case of the same diagnosis attended by the same type of practitioner.

In the present paper no distinction is made between hospital and nonhospital cases, the calls per 1,000 persons and the average calls per case referring always to all cases. Seven percent of all cases and 9 percent of attended cases were hospitalized; and of those hospitalized only 5 percent did not receive home, office, or hospital calls from a

⁹ A preceding paper (15) shows the percentage of cases of different types that were incomplete because of prior onset or because still sick at the last report on the case.

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private doctor or clinic physician in addition to care by the hospital staff.¹⁰ A later paper will be devoted to hospital care.

II. EXTENT OF MEDICAL CARE BY DOCTORS AS MEASURED BY VARIOUS TYPES OF RATES

The extent of medical care in a given population group may be measured by several types of rates: (a) The percentage of illnesses that were attended by a doctor, (b) the cases attended by a doctor per 1,000 population, with separation into those attended in the office only and those with one or more home calls, (c) the number of doctors' calls per 1,000 population, with separation into office and home calls, and (d) the number of doctors' calls per attended case. One might further classify by type of attendant and compute such rates for each type of practitioner. It may be worth while to summarize for all causes of illness these various medical-care rates for persons of all ages.

Summary of doctors' care¹¹ of illness for all ages.—In the 8,758 families visited at intervals of 2 to 4 months in urban and rural parts of 18 States, 79 percent of all illnesses were attended by one or more types of practitioners. While some of the cases were attended by two types of practitioners (e. g., physician and specialist) and others by two or more doctors of the same type (e. g., family and other physician in general practice), the great majority (90 to 95 percent of the attended cases) were attended by one doctor only. The attended cases during the year amounted to 647 per 1,000 population, with an annual total of 2,949 calls per 1,000 population, ¹² or 2.9 calls per person under

¹⁰ Home, office, and hospital calls by private or clinic doctors for hospitalized illness amounted to 8.7 calls per case, as compared with 4.2 calls per case for all attended illnesses. Doctors' calls per hospitalized cases for the specific diagnoses were in nearly every instance larger than the corresponding figure for all attended cases; thus the greater severity of the cases that were hospitalized led to more doctors' calls per case in addition to supplementary care by the hospital staff.

The diagnoses with a high percentage of cases with no care except by the hospital staff were tuberculosis, 16 percent; nervous diseases, 16 percent; bones, joints, malformations, and diseases of early infancy, 15 percent; communicable diseases, 9 percent; and accidents, 9 percent. No other frequent hospital diagnoses were over 6 percent.

¹¹ To avoid the repeated use of a long expression such as "all types of practitioners," "doctor" is used in this study in the popular sense to designate any type of healer; and "physician" and "specialist" are used to designate persons with medical degrees. For the most part rates are shown separately for the different types of healers.

^{1?} The rates quoted for the surveyed population throughout this discussion have been adjusted to the age distribution of the white population of the United States in 1930. In other words, the rates are corrected for the fact that the surveyed sample did not have the same age distribution as the general population of the United States. Percentages of cases and of calls quoted in the text are computed from adjusted rates rather than from the actual numbers of cases and calls; similarly, calls per case are computed from the adjusted rates. In no instance are these measures radically different from similar computations based on the actual numbers of cases; both results are shown in table 1.

The rates for doctors' calls as given in this report do not check exactly with those given in the Committee report (16) because (a) adjustment in that report was made for income but not for age differences, (b) in the present study calls are summated from case records, and cases that had medical attendance with an unknown number of calls are assumed to have had the same number of calls as the average for other cases of the same diagnosis attended by the same type of practitioner.

observation (table 1). There was a total of 4.6 calls during the study year per case attended by any practitioner.¹³

Of the total of 647 attended cases per 1,000 population, 526 cases per 1,000 were attended by private physicians not designated as specialists. Of the total attended cases, 81 percent were attended by these private general physicians, and they made 72 percent of all calls by any type of attendant. Of the 526 cases per 1,000 attended by private physicians not designated as specialists, 294 cases per 1,000 had one or more home calls and the other 232 had office calls only. These cases had a total of 2,114 calls per 1,000 population, 1,051 per 1,000 being home calls and the other 1,063 being calls by the patient to the office of the physician. Thus, of the total cases attended by private physicians not designated as specialists, 56 percent had home calls; the other 44 percent of these cases had office calls only; the office calls on these cases plus the office calls on cases that also had home calls amounted to 50 percent of the total calls by private physicians in general practice (table 1).

In this surveyed group there were 80 cases attended by specialists for each 1,000 population, with a total of 400 specialists' calls per 1,000 population. Thus, there were 5.0 calls by specialists per case so attended; the same case may or may not have had the attendance of a general or other practitioner also. Of all cases attended by any type of practitioner, 12.5 percent were attended by a specialist, and 13.6 percent of all practitioners' calls were made by a specialist.

There were 30 public clinic cases per 1,000 population, with a total of 127 clinic calls per 1,000, or 4.3 clinic calls per public clinic case; the clinic cases may or may not have had other attendants also. Only 4.6 percent of all cases attended by any practitioner had the attendance of a public clinic and 4.3 percent of all calls were calls to a public clinic.

Illness attended by private group clinics amounted to 8.0 cases per 1,000 population, with a total of 28 clinic calls per 1,000 or 3.5 calls per private group clinic case.

There were 33 illnesses attended by nonmedical practitioners per 1,000 population, 15 with a total of 279 calls for these practitioners per

¹³ No exact comparison can be made with the results of the National Health Survey of 1935-36 (19) because that study recorded medical care on cases disabling for 7 consecutive days or longer, while the present study recorded care on cases disabling for 1 day or longer and also on nondisabling cases. However, the large volume of care for short cases is evident from the fact that the Health Survey recorded only 900 physicians' calls on cases disabling for 7 days or longer per 1,000 white persons in 83 cities (19), as compared with 2,670 calls (exclusive of nonmedical) per 1,000 population in the present study covering both disabling and nondisabling cases. The Health Survey recorded 7.4 doctors' calls per attended case disabling 7 days or longer, as compared with 4.6 calls per attended case (disabling and nondisabling) in the present study.

¹⁴ The designation of specialist was accepted as given by the family; that is, only those physicians were tabulated as specialists who were so designated by the family informant.

is Nonmedical practitioners in table 1 include osteopath, chiropractor, Christian Science and other faith healers, naturopath, midwife, and chiropodist (but not dentist). Data for some of these types are shown separately in later tables.

1,000 population, or 8.5 calls per case so attended. Thus, 5.1 percent of all cases attended by any practitioner had the attendance of a nonmedical practitioner (with or without other attendants), but 9.5 percent of all calls were made by these nonmedical practitioners (table 1).

Table 1.—Frequency and volume of services by physicians and other practitioners in connection with illness among persons of specific ages for each sex—8,758 canvussed white families in 18 States during 12 consecutive months, 1928-31

	All	ages 1	Age									
Sex and type of rate	Ad- just- ed 3	Crude	Un- der 5	5-9	10-14	15–19	20-24	25-34	35-44	45–54	55 -64	65 and over
Illness attended by any practi- tioner: Cases attended by any practi- tioner per 1,000 population:												
Both sexes, all causes.	647								634			760
Male, all causes	559											
Female, all causes	724	727	925	686	476	464	719	830	770	750	744	848
Female, all except genital and				***								
puerperal	645	651	923	685	472	422	517	609	648	704	731	841
Calls by any practitioner per 1,000 population:												
Both sexes, all causes	2, 949	2, 785										
Male, all causes	2, 410			2, 338	1, 710	1, 772	1,869	2, 144	2, 501	2, 560	3, 230	4, 325
Female, all causes	3, 423	3, 206	2, 594	2,068	1, 708	1,866	3, 678	4, 366	4,001	4, 159	3, 891	6, 185
Female, all except genital and												
puerperal	2,815	2, 624	2, 585	2,063	1,690	1, 643	2, 211	2, 596	3, 063	3, 790	3, 810	6, 061
Percent of total cases that were attended by any practitioner:												
Both sexes, all causes	78. 6	78. 1	78.8	72. 1	70 8	73. 9	04 2	04 1	01 0	80. 6	76.6	77. 6
Male, all causes	77. 6	77. 3	79. 7	72. 5			78. 8				78. 3	75. 8
Female, all causes	79. 1		77. 9	71.7				85. 0				78. 7
Female, all except genital and	75. 1			' '	10.0	12.0	80. 0	80.0	02. 1	01. 1	10. 1	10.1
puerperal.	77. 4	77. 0	77. 9	71. 7	70.6	71. 7	82.6	81. 1	80 A	80. 2	74. 8	78 7
Practitioners' calls per case attended:							32.0		٠. ١	۵.2		10.1
Both sexes, all causes	4, 56	4. 20	2. 75	3. 12	3, 56	4.10	5 14	4 96	5 12	5. 35	5, 46	7.07
Male, all causes	4. 31	3, 93	2.69	3. 22			5. 22	4. 27	5. 01	5. 11		
Female, all causes Female, all except genital and	4. 73	4.41	2. 80	3. 01	3. 59		5. 11					7. 29
puerperal	4.37	4.03	2.80	3. 01	3. 58	3. 89	4. 28	4. 26	4. 73	5. 38	5. 21	7. 20

¹ Illnesses refer to periods of sickness regardless of the number of diagnosis; that is, these totals for all causes are the sums of data for cases with sole or primary diagnosis. Cases refer to those that lasted for 1 or more days (disabling and nondisabling) including those with prior onset that extended into the study year and those still sick at the last visit; cases with prior onset are counted as attended even when all calls were prior to the study year (only 0.4 percent of the cases were so recorded). If an illness had two types of attendant, it was counted for both attendants but there is no duplication of calls; the total cases attended by tendant, it was counted for both attendants but there is no augmention or caus; the local cases memoral pay practitioner counts each case only once. A few attended cases were counted as having no calls because all service was rendered within a hospital by the hospital staff. Calls refer to those within the study year only, including those by private physicians upon patients in hospitals. In computing total calls, cases with an unknown number of calls were put in at an average based on cases of the same disgnosis group with known numbers of calls, exclusive of the few cases with 100 or more calls. Services of dentists were not recorded in terms of calls and no estimate for calls was put into this table for the few illnesses (about 1 percent) attended by dentists recase however are included. For dentists cases for the well and the sick in this group of

terms of calls and no estimate for calls was put into this table for the few illnesses (about 1 percent) attended by dentists; cases, however, are included. For dental services for the well and the sick in this group of families, see preceding paper (15).

Illness from accident is included along with that due to disease.

2 "All ages" includes a few of unknown age; "both sexes" includes a few of unknown sex.

Rates in the form of cases or calls per 1,000 population are adjusted by the direct method to the age distribution of the white population of the death registration States in 1930 as a standard population; this population is given for specific ages in table 1 of a preceding paper (3). The adjustment method involves the weighting of the age specific rates for the canvassed population according to the age distribution of the standard population. The details of the process are given under the heading of "corrected death rates" in Pearl (17), pp. 269-271.

Figures in the "adjusted" column on calls per case represent the result of dividing the adjusted rate for calls per 1,000 by the adjusted rate for cases per 1,000; figures in the "adjusted" column for percentage of cases or percentage of calls represent the percentage that one adjusted rate per 1,000 is of another adjusted rate per

TABLE 1.—Frequency and volume of services by physicians and other practitioners in connection with illness among persons of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31—Continued

	AII	ages					A,	7A				
				т—	1		A.	,,, 	r			
Sex and type of rate	Ad- just- ed	Crude	Un- der 5	5-9	10-14	15–19	20-24	25-34	35-44	45-54	55-64	65 and over
Illness attended by private physicians not designated as specialists: 4												
Cases attended by private phy- sicians per 1,000 population:				l						l		
Both sexes, all causes	526 458	537 487		572 590	379 387	361 351	473 298	570 417	499 394	491 405	522 473	
Female, all causes	585	586	745	590 554	371	372	602	683		596		
Female, all except genital and puerperal	518	522	744	1	367	335	429	497	502	557	571	734
Cases with home calls per 1,000 population:												
Both sexes, all causes	294 238	307 265	533 551		202 205	168 153	247 128	300 177	242 164	240 190	274 218	456 339
Female, all causes	343	348	516		199	183	335	391	321	302	341	547
Female, all except genital and puerperal	298	305	516	368	198	160	217	263	253	280	335	542
Cases with office calls only per 1,000 population:												
Both sexes, all causes	232 220	· 230	243 258	204 221	177 182	193 198	226 170	270 240	257 230	251 215	248 255	204 217
Female, all causes	242	238	229	186	172	189	267	292	284	294	240	195
Female. all except genital and puerperal	220	217	228	185	169	175	212	234	249	277	236	192
1,000 population:	2. 114	1, 984	1 060	1 620	1 107	1 205	0 174	9 490	0 110	9 969	0 404	4 410
Both sexes, all causes	1, 766	1, 711	2, 024	1, 639 1, 794	1, 294	1, 319	1, 398	1, 480	1, 683	2, 203 1, 721	2, 388	3. 645
Female, all causes Female, all except genital and puerperal	2, 412 1, 944		1, 920	1, 488 1, 487	1,099	1, 291	2, 740	3, 128	2, 556	2, 928	2, 468	5, 016
Home calls by physicians per 1,000 population:		,										
Both sexes, all causes	1, 051 818	1, 001 832	1, 335 1, 388	1, 029	604 650	562 532	801	1, 038 510	880	946 624	1,062	3, 178
Female, all causes	1, 249	1, 163	1, 285	940	557		1, 100	1, 431	1, 180	1, 341	1, 081	3, 897
Female, all except genital and puerperal	1, 042		1, 283	939	556	502	606	843	840	1, 210	1.052	3.872
Office calls by physicians per 1,000 population:								1	1	- 1	- 1	
Both sexes, all causes	1,063 948	983 879	634 636	610 673	593 644	743	1, 373	970	1, 238 1, 100	1, 317 1 097	1, 362 1 341	1, 238
Female, all causes	1, 163	1, 085	635	548	542	699	640	1, 697	1, 376	1, 587	1, 387	1, 119
Female, all except genital and puerperal	902	835	633	548	524	590	987	929	1, 013	1 417	1 355	1 069
Home cans by unvicians per i	002		000					-	-,	.,	-, 555	-,
case with home calls: Both sexes, all causes	3. 57	3. 26	2. 51	2. 79	2.99	3. 35	3. 24	3. 46	3. 64	3.94	3, 88	6. 97
Male, all causes	3. 44	3. 14	2. 52	3.04	3. 17	3. 47	3.08	2.88	3. 56	3. 29	4.81	6.66
Female, all causes Female, all except genital and	3.64	3. 35	2. 49	2. 55	2. 80	3. 24	3. 29	3. 66	3. 67	4. 44	3. 17	7. 12
puerperal	3. 49	3. 17	2. 49	2. 56	2. 81	3. 14	2. 79	3. 21	3. 32	4. 32	3. 14	7.14
Percent of cases attended by physicians that had home	- 1					1	- 1		_	- 1	i	
calls:												
Both sexes, all causes	55. 9 52. 0	57. 1 54. 4	68. 7 68. 1	64. 4 62. 5	53. 2 52. 9	46. 5 43. 7	52, 2 42, 9	52. 6 42. 5	48. 5 41. 6	48. 9 46. 8	52. 4 46. 1	69. 0 60. 9
Female, all causes	58. 6	59. 3	69. 3		53. 6	49. 1	55. 6	57. 2	53. 1	50. 7	58. 6	73.8
Female, all except genital and puerperal	57. 6	58. 4	69. 3	66. 5	53.8	47. 7	50. 6	53. 0	50. 4	50. 3	58. 6	73.8
Percent of cases attended by physicians that had office	00		00.0	00.0	0.0		00.0		00. 2			
calls only: Both sexes, all causes	44. 1	42. 9	31.3	35. 6	46.8	53. 5	47.8	47. 4	51. 5	51. 1	47. 6	31.0
Male, all causes	48. 0 41. 4	45. 6 40. 7	31. 9 30. 7	37. 5 33. 6	47. 1 46. 4	56. 3 50. 9	57. 1 44. 4	57. 5 42. 8	51. 5 58. 4 46. 9	53. 2 49. 3	53. 9 41. 4	39. 1 26. 2
puerperal	42. 4	41. 6	30. 7	33. 5	46. 2	52. 3	49. 4	47 . 0	49 . 6	49. 7	41. 4	2 6. 2

 $^{^4}$ ''Specialists'' as used in this study refers to physicians so designated by family informants, regardless of listing in any directory of physicians.

TABLE 1.—Frequency and volume of services by physicians and other practitioners in connection with illness among persons of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31—Continued.

	All	ages					A	ge				
Sex and type of rate	Ad- just- ed	Crude	Un- der 5	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65 and over
Claims not designated as specialists—Continued. Percent of physicians' calls that were home calls:												
Both sexes, all causes Male, all causes Female, all causes	49. 7 46. 3 51. 8	50. 4 48. 6 51. 8	67. 8 68. 6 66. 9	62. 5	50. 4 50. 2 50. 7	43. 1 40. 3 45. 9	28.1	34. 4	41. 6 34. 7 46. 2	41. 8 36. 3 45. 8	43.9	72. 0 61. 9 77. 7
remale, all except genital and puerperal Percent of physicians' calls that	53. 6	53. 6	67. (63. 2	51.5	45. 9	3 8. 0	47. 6	45. 3	46. 1	43. 7	78.3
were office calls: Both sexes, al! causes Male, all causes	50. 3 53. 7	49. 6 51. 4	32. 2 31. 4	37. 5	49.8	59.7	71.9	65. 6	65. 3	58. 2 63. 7	56. 1	28. 0 38. 1
Female, all causes Female, all except genital and puerperal	48. 2 46. 4	48. 2 46. 4	33. 1 33. 0		49. 3 48. 5		59. 9 62. 0	ı	1 1	54. 2 53. 9	56. 2 56. 3	22. 3 21. 7
Percent of all attended cases that were attended by physicians not designated as special- ists:												
Both sexes, all causes	81. 4 81. 9 80. 8	81. 0 81. 5 80. 6	81. 2 81. 9 80. 5	81.4	79. 1 80. 1 78. 1	81. 5 83. 1 80. 1	83. 5 83. 1 83. 7	83.1	78. 7 79. 0 78. 5	80. 1 80. 9 79. 5	80. 7 83. 5 78. 1	86. 9 86. 2 87. 4
Female, all causes Female, all except genital and puerperal Percent of all practitioners' calls	80. 3	80. 1	80. 6	1	77. 9	79. 3	83. 1	81. 6		79. 1	78. 1	87. 3
that were calls by physicians not designated as special- ists:												
Both sexes, all causes Male, all causes Female, all causes Female, all except genital and	71. 7 73. 3 70. 5	71. 2 72. 9 70. 1	75. 1 76. 2 74. 0	74. 5 76. 7 72. 0	70. 1 75. 7 64. 3	71. 7 74. 4 69. 2	74. 6 74. 8 74. 5	71. 0 69. 1 71. 7	65. 2 67. 3 63. 9	69. 0 67. 2 70. 4	68. 7 73. 9 63. 4	82. 2 84. 3 81. 1
puerperal Illness attended by specialists: 4 Cases attended by specialists	69. 1	68. 6	74. 1	72. 1	63. 9	66. 5	72, 1	68. 3	60. 5	69. 3	63. 2	81. 5
Both sexes, all causes	80. 5 72. 6	85. 1 79. 3	135. 9 141. 7	90. 3 94. 0	56. 7 59. 5	55. 1 53. 7 56. 5	51.5	89. 9 64. 1	83. 5 71. 8	71. 9 60. 7	75. 4 65. 9	69. 1 66. 4
Female, all causes Female, all except genital and puerperal	87. 4 77. 7	90. 6 81. 1	129. 7 128. 9	86. 7 86. 7	53. 8 53. 8	56. 5 56. 5	76. 7 62. 0	109. 0 80. 0	95. 2 75. 2	85. 7 79. 7	86. 7 82. 2	71. 3 69. 5
Calls by specialists per 1,000 population: Both sexes, all causes	400 340	398 343	414 419	336 315	260 251	264 219	341 286	513 323	485 369	395 400	470 443	443 412
Female, all causes Female, all except genital and puerperal	451 388	452 388	407 406	356 356	270 270	308	381	655	602 484	389	504 484	467 460
Specialists' calls per case attended by specialist: Both sexes, all causes.	4. 97	4. 68	3. 05	3. 72	4. 59	4. 79	5. 16	5. 71				6. 41
Female, all causes Female, all except genital and	4. 68 5. 16	4. 32 4. 98	2.96 3.14	3. 35 4. 11	4. 22 5. 01	4. 09 5. 45	5. 57 4. 97	5. 03 6. 01	5. 14 6. 32	6. 59 4. 54	6. 72 5. 81	6. 21 6. 55
puerperal Percent of all attended cases that were attended by spe- cialists:	4. 99	4. 78	3. 15	4. 11	5. 01	5. 45	4. 95	5. 30	6. 43	4. 53	5. 89	6. 62
Both sexes, all causes Male, all causes Female, all causes	12. 5 13. 0 12. 1	12. 8 13. 3 12. 5	14. 2 14. 3 14. 0	12. 8 13. 0 12. 6	12. 3	12. 7	11. 7 14. 4 10. 7	12.8	14. 4	12. 1	11. 7 11. 7 11. 7	9. 1 10. 3 8. 4
Female, all except genital and puerperal Percent of all practitioners' calls that were specialists' calls:	12. 1	12. 5	14. 0	12. 7	11.4	13. 4	12. 0	13. 1	11.6	11.3	11.3	8. 3
Both sexes, all causes Male, all causes Female, all causes	13. 6 14. 1 13. 2	14. 3 14. 6 14. 1	15. 8	15. 3 13. 5 17. 2	14. 7	12. 4	15. 3		14.8	15. 6	13. 3 13. 7 12. 9	8. 2 9. 5 7. 6
Female, all except genital and puerperal	13.8	14.8	- 1	17. 3	- 1	- 1	- 1		- 1	9. 5	- 1	7.6

^{4 &}quot;Specialists" as used in this study refers to physicians so designated by family informants, regardless of listing in any directory of physicians.

Table 1.—Frequency and volume of services by physicians and other practitioners in connection with illness among persons of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31—Continued

	All	ages					A	д ө				
Sex and type of rate	Ad- just- ed	Crude	Un- der 5	5-9	10-14	15–19	20-24	25-34	35-44	45–54	55-64	65 and over
Illness attended by public clinics: Public clinic cases per 1,000 population:												
Both sexes, all causes Male, all causes	29. 5 22. 3	31. 8 25. 1	37.3	41.5	34.3	18. 3	13. 4		16. 5		13. 7	22.8
Female, all causes Female, except genital and	36. 2	38. 2	48. 8	44. 2	42.0	18. 4				ł	ŀ	19. 6
Public clinic calls per 1,000 population:	29. 5	31.8	48. 4			15. 8			26. 1			19. 6
Both sexes, all causes	127 94	130 96	138 124	127 115	138 95	87 92	191 115	157 148	152 66	77 35	69 41	84 92
Male, all causes	159	163	153	139	183	81	247	164	238	129	102	78
puerperal Public clinic calls per case attended by public clinics:	123	129	149	135	183	70	98	80	179	124	102	78
Both sexes, all causes Male, all causes	4.30 4.23	4. 10 3. 84	3. 22 3. 32		3. 63 2. 76	4.71 5.00		5. 31 8. 66	5. 73 4. 02			4.00 4.00
Female, all causes	4. 39	4. 26	3. 13	3. 13		4. 43		4. 21	6. 50			4.00
Female, all except genital and puerperal Percent of all attended cases that were public clinic cases:	4. 16	4.04	3. 08	3. 10	4. 36	4. 42	4. 62	3. 60	6. 86	4. 56	3. 40	4.00
Both sexes, all causes	4.6	4.8	4. 5	6. 1	7.9	4. 1	5. 7	4.3	4.2	3. 2	3. 3	2.8
Male, all causes Female, all causes	4.0 5.0	4. 2 5. 3	3. 8 5. 3	5. 7 6. 4	7. 1 8. 8	4.3 4.0	3. 7 6. 5	3. 4 4. 7	3.3 4.7	2. 4 3. 8	2.4 4.0	3. 5 2. 3
Female, all except genital and puerperal Percent of all practitioners' calls	4.6	4. 9	5. 3	6. 3	8. 9	3. 7	4. 1	3. 7	4.0	3. 9	4. 1	2. 3
that were public clinic calls: Both sexes, all causes	4.3	4.7	5. 3	5. 7	8. 1	4.8	6.6	4. 6	4.7	2. 3	1. 9	1. 6
Male, all causes	3. 9 4. 7	4. 1 5. 1	4. 7 5. 9	4. 9 6. 7	5. 5 10. 7	5. 2 4. 4	6. 2 6. 7	6. 9 3. 8	2. 6 5. 9	1. 3 3. 1	1. 3 2. 6	2. 1 1. 3
Female, all causes Female, all except genital and	i	4	- 1		1	í	i	i	I		- 1	
puerperal Illness attended by private group clinics:	4.4	4.9	5.8	6. 5	10.8	4. 2	4.4	3. 1	5.8	3. 3	2. 7	1. 3
Private group clinic cases per 1,000 population:					l	- 1		ı	l			
Both sexes, all causes	8. 0 7. 3	8. 5 7. 8	12. 7 11. 7	8. 9 7. 5	6. 3 4. 8	5. 9 3. 3	3. 8 3. 4	10. 1 8. 7	9. 9 10. 4	5, 7 8, 1	5. 4 5. 0	8. 0 6. 9
Female, all causes Female, all except genital and	8. 5	9. 2	13. 8	10. 4	7. 9	8. 5	4. 1	11. i	9. 5	2. 7	6. 0	8. 9
puerperal Private group clinic calls per 1,000 population:	7. 6	8. 3	13. 8	10. 4	7.9	8. 5	4. 1	6. 5	8. 5	2.7	6.0	8. 9
Both sexes, all causes	28. 1	30.0	38. 5	27. 5	23.6	26.6	10. 9	35. 6	45. 2 46. 7	18.8	19.7	14.0
Male, all causes Female, all causes	24. 8 31. 1	26. 6 33. 3	37. 7 39. 5	26.6 28.3	10. 4 37. 1	17. 7 35. 5	15. 7 7. 3	25. 4 43. 2	46. 7 43. 7	21. 1 15. 9	14. 9 25. 4	13. 7 14. 3
Female, all except genital and puerperal	25. 1	26.8	39. 5	28. 3	37. 1	35. 5	7.3	12.7	34. 2	15. 9	25. 4	14. 3
Illness attended by nonmedical practitioners		20.0	55.5	20.0	52	00.0			-	20.0	20. 2	
Cases attended by nonmedical practitioners per 1,000 population:												
Both sexes, all causes	32. 9	28.8	7. 3	10. 5	10.3		27.8	36. 3				43. 1
Male, all causesFemale, all causes	23. 7 42. 0	21. 8 35. 6	7. 5 7. 1	11. 7 9. 3	10. 0 10. 6	15. 1 24. 3	13. 4 38. 4	25. 8 44. 2		45. 0 81. 7	39. 8 86. 7	25. 2 57. 0
Female, all except genital and puerperal	38. 6	32. 6	7.1	9. 3	10.6	21.0	28.6	36. 7	57. 6	77.0	86. 7	55. 3
Calls by nonmedical practi- tioners per 1,000 population: Both sexes, all causes	279	243	63	72	89	137	198	287	448	525	547	414
Male, all causes Female, all causes	185	172	52 75	88	59 120	124 150	54 303	168 375	336 561	384 697	343 792	163 610
Female, all except genital and	369	311	- 1	56	1	1	i	- 1		1	792	567
puerperal	336	281	75	56	120	138	206 ¹	307	513	662	192	507

⁵ Nonmedical includes osteopath, chiropractor, Christian Science practitioner, faith healer, naturopath, midwife, chiropodist, and others who are not usually graduates of medical schools, except that in this table dentists are not included as nonmedical.

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Table 1.—Frequency and volume of services by physicians and other practitioners in connection with illness among persons of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928—31—Continued

	All	ages	Age									
Sex and type of rate	Ad- just- ed	Crude	Un- der 5 mmm		10-14	15–19	20-24	25-34	35-44	45-54	55-64	65 and ove
Illness attended by nonmedical practitioners—Continued. Nonmedical calls per case at- tended by nonmedical prac- titioners:												
Both sexes, all causes Male, all causes Female, all causes	8. 47 7. 80 8. 79	7.89	7.00	7.55	5. 91	8.26	7. 10 4. 00 7. 89	6.50	9. 27	8. 53	8.96 8.63 9.14	6.4
Female, all except genital and puerperal. Percent of all attended cases that were attended by nonmedical practitioners:	8. 70	8. 63		1			7. 20		8. 90	8. 59	9. 14	10. 20
Both sexes, all causes	5. 1 4. 2 5. 8	3.7	.8 .8	1.6	2.1	4. 4 3. 6 5. 2	4. 9 3. 7 5. 3	5. 3 5. 1 5. 3	7.3	9.0		3. 9
Female, all except genital and puerperal. Percent of all practitioners' calls that were calls by nonmed-	6.0	5. 0	.8	1.4	2.3	5. 0	5. 5	6.0	8.9	10. 9	11.9	6. (
ical practitioners: Both sexes, all causes Male, all causes Female, all causes	9. 5 7. 7 10. 8	7.3	2. 4 2. 0 2. 9	3. 3 3. 8 2. 7	5. 2 3. 5 7. 1	7. 5 7. 0 8. 1	2.9	7.8		15.0	15. 5 10. 6 20. 4	3. 8
Female, all except genital and puerperal	11.9	10.7	2.9	2. 7	7. 1	8.4	9. 3	11.8	16. 7	17. 5	20.8	9. 3
Population (years of life): Both sexes		38, 544 18, 896 19, 627	5, 513 2, 808 2, 684	2,820	2, 301	1.527	894	2.402	2 979	1. 845	1, 473 804 669	998 437 561

Age and sex differences in rates of medical care.—The frequency and volume of medical care varies with age and sex for at least three reasons: (a) The amount of illness varies with age and sex; although not all cases are attended and the number of calls per case varies, the attended cases and the calls per 1,000 persons definitely reflect the frequency of illness. (b) The diseases that occur most frequently in one age group are not the same as those that are most frequent at other ages, and the different diseases require varying amounts of medical (c) The severity of a given disease varies with age and so requires varying amounts of medical care. Figures 1 and 2 and table 1 show for males and females of different ages attended cases and doctors' calls per 1,000 population; rates for the various types of practitioners are shown separately. Because puerperal conditions and female genital diseases require considerable medical care that is not needed by men, the rates for females are shown as a total for all causes, and for causes other than female genital and puerperal diagnoses.

No detailed discussion of these charts is needed, but certain characteristics of the curves (figs. 1 and 2) may be pointed out. In a way, the number of doctors' calls measures the severity of a case in much

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the same manner as the number of days disabled or in bed. Thus, here, as in the duration of illness (14), there is a larger increase for the older ages in the number of doctors' calls per 1,000 population than in the number of attended cases. There is some increase in the older ages in the incidence of home-attended cases, but the greatest increase occurs in home calls per 1,000. Office calls, on the other hand, show little or no increase in the oldest ages. Also, in the youngest ages, the high rate that occurs for home calls among children under 5 years is entirely missing in the curve for office calls.

Specialists' cases (fig. 2), like other physicians' cases, are high for children and for women of the childbearing ages. The percentage of attended cases that had a specialist does not vary greatly with age; however, there is some decline as age increases in both the percentage of cases attended by specialists and of calls made by specialists. Public clinic cases are likewise more frequent in childhood and at the childbearing ages.

The age curves of attendance by nonmedical practitioners vary greatly from those for physicians, specialists, and public clinics. Nonmedical practice is at a minimum among children of both sexes, but at about 20 years the rates per 1,000 females for cases and calls by these practitioners begin a definite rise with a peak at 55–64 years and a decline thereafter. Cases attended by nonmedical practitioners are fewer among males and the peak is reached in the age group 45–54 years, with declining rates thereafter. As measured by the percentage of all attended cases and the percentage of total calls made by the nonmedical practitioners, the showing with respect to males and females is approximately the same.

The various age curves in figures 1 and 2 usually show little difference between the sexes in childhood. At about 20 years the curves of attended cases and also of calls per 1,000 population definitely diverge for males and females, with an excess for females throughout the adult ages. These higher rates for women reflect an excess in total illness rather than in the proportion of cases attended or in doctors' calls per case; the curves in the upper right corner of figure 1 for calls per attended case show little difference between the sexes at any age. The nature of the excess in illness among women was discussed in some detail in a preceding paper (14) and need not be repeated here. Considering cases of all ages attended by any practitioner the rate (adjusted for age) for males was 559 per 1,000 as compared with 724 for all causes among females and 645 for all except female genital and puerperal diagnoses, an excess of 15 percent for comparable diagnoses. This excess in attended cases is about the same as the corresponding excesses of 16 percent for all cases, 9 percent for disabling cases, and 19 percent for bed cases, including both attended and nonattended (14). Of the total cases among men, 78 percent

were attended by some practitioner, as compared with 79 percent for all cases among females and 77 percent for all except female genital and puerperal diagnoses. Table 1 shows by age and sex the percentage of all cases that were attended by some practitioner.

Considering cases attended at home and home calls per 1,000 persons (fig. 1), the relative excess for women is slightly greater. The

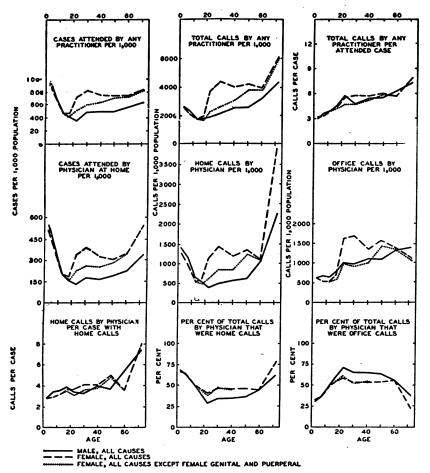


FIGURE 1.—Annual volume of medical care for illness from all causes as measured by various types of rates for males and females of specific ages—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31. (Scales are so made that the adjusted rate for all ages of both sexes represents an interval on the vertical rate scale that corresponds to 30 years on the horizontal age scale.)

home calls per case that had home calls is about the same for males and females of corresponding ages, but the percentage of total calls by these doctors that were home calls is slightly greater for women than men. The small excess for women is not accounted for by female genital and puerperal conditions; the percentage of home calls for women was about the same for all cases and for cases exclusive of these diagnoses.

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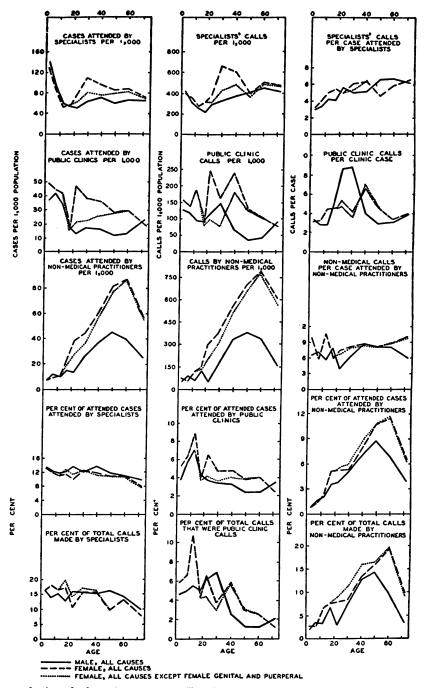


FIGURE 2.—Annual volume of medical care for illness from all causes as measured by various types of rates for males and females of specific ages (continued).

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It may be worth noting that cases attended at home and home calls per 1,000 persons (fig. 1) are very slightly but consistently higher for boys under 15 years than for girls of those ages. This excess for boys is true for cases attended by specialists per 1,000 persons, but it is not true for specialists' calls per 1,000. Public clinic cases and calls seem to be more frequent for girls than boys under 15 years. However, there is little difference between boys and girls under 15 years with respect to the total attended cases and the total calls by any practitioner per 1,000.

Attended cases and calls by specialists show an excess for females. but the excess is not large when genital and puerperal diagnoses are The percentages of cases and of calls by specialists are about the same for men and women under 40 years but above that age they may be slightly greater for men (fig. 2). For persons of all ages. cases attended by specialists amounted to 73 per 1,000 males as compared with rates for females of 87 for all causes and 78 for all except female genital and puerperal diagnoses, an excess of 7 percent for comparable diagnoses. Specialists' calls amounted to 340 per 1.000 males as compared with rates for females of 451 for all causes and 388 for all except genital and puerperal diagnoses, an excess of 14 percent for females. The excesses for women in these rates for specialists represent excesses in illness rather than in the attendance of a specialist; among men 13 percent of all attended cases had a specialist, as compared with 12 percent for women for all causes and the same figure for all except genital and puerperal diagnoses. Of the total calls by any practitioner, 14 percent of those for males were made by a specialist as compared with percentages for women of 13 for all causes and 14 for all except genital and puerperal diagnoses (table 1).

Similarly, there is an excess for females over males in cases attended by public clinics. There were 22 public clinic cases per 1,000 males as compared with rates for females of 36 for all causes and 30 for all except genital and puerperal diagnoses, an excess of 36 percent for comparable diagnoses. Public clinic calls amounted to 94 per 1,000 males as compared with rates for females of 159 for all causes and 123 for all except female genital and puerperal diagnoses, an excess of 31 percent for comparable diagnoses. Public clinic calls per public clinic case amounted to 4.2 for males as compared with averages for females of 4.4 for all cases and 4.2 for cases exclusive of female genital and puerperal diagnoses. Of the total attended illnesses for males. 4.0 percent were public clinic cases as compared with percentages for females of 5.0 for all cases and 4.6 for all except female genital and puerperal diagnoses. Public clinic calls for males amounted to 3.9 percent of all calls as compared with percentages for females of 4.7 for all causes and 4.4 for all except female genital and puerperal diagnoses.

The large increase in cases and calls by nonmedical practitioners 16 in the adult and middle ages has already been noted. Considering the curves for the two sexes separately (fig. 2), the increase during the middle ages in the use of this type of practitioner is much greater among women then men. For all age groups above 20 years there is a large excess for women over men in nonmedically attended cases and nonmedical calls, only a small part of which is accounted for by female genital and puerperal diagnoses. Midwives are about the only persons included in the nonmedical group who commonly attend confinements. and the number of these cases attended by midwives was small in the surveyed group. Considering all ages, all cases attended by nonmedical practitioners amounted to 24 per 1,000 males as compared with rates for females of 42 for all causes and 39 for all except female genital and puerperal diagnoses, an excess of 62 percent for comparable diagnoses. Calls by nonmedical practitioners amounted to 185 per 1,000 males as compared with rates for females of 369 for all causes and 336 per 1,000 for all except female genital and puerperal, an excess of 82 percent for comparable diagnoses. Calls per case were somewhat higher for women than men, 7.8 for men as compared with averages for women of 8.8 for all causes and 8.7 for all except female genital and puerperal diagnoses.

III. VARIATION IN VOLUME OF MEDICAL CARE WITH SIZE OF CITY, GEOGRAPHIC SECTION, AND INCOME

Rates that have been given above refer to the whole surveyed group of families. As might be expected, certain classifications of the population have rates that vary considerably from the averages for the whole group.

Size of city and volume of medical care.—Cities and towns were tabulated in three classes to compare the volume of medical care:¹⁷
(a) Cities of 100,000 or more population, (b) cities of 5,000 to 100,000 population, and (c) towns under 5,000 and rural areas. For several reasons given in notes to table 2 these tabulations as well as those in the Committee report (16) are not strictly comparable with other tables in this paper, but they give an accurate comparison of the variation with size of city and geographic area. In calls by any practitioner on account of illness, the rate per 1,000 population in cities over 100,000 was 34 percent higher than that for towns under

Nonmedical practitioners here include osteopath, chiropractor, Christian Science and other faith healers, naturopath, midwife, and chiropodist (but not dentist).

¹⁷ The data here reviewed on the volume of medical care by size of city and geographic section are based largely on unpublished tabulations for this group of families which were made under the direction of G. St. J. Perrott and I. S. Falk to supplement in this respect the report of the Committee on the Costs of Medical Care (16).

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5.000 and rural areas, with the rate for cities of 5,000-100,000 population falling logically between the two extremes. The excess in doctors' calls in the large cities represents a higher percentage of attended cases and more calls per case rather than more illness; illness rates per 1,000 were not greatly different in the three city-size classes (table 2).

Table 2 - Services of physicians and other practitioners in connection with illness in cities of different sizes-7,434 canvassed white families in 14 States, 1928-31

Type of rate	All city sizes ¹ (simple means of rates in the three sizes)	Cities of 100,000 or over	Cities 5,000- 100,000	Towns under 5,000 and rural areas
		Annual rat	es per 1,000 p	opulation 2
Total illnesses * per 1,000 population	830 2, 641 2, 134 1, 063 311 196 3, 18 32, 686	795 3, 003 2, 420 1, 192 362 221 3, 78 11, 593	846 2, 679 2, 233 1, 168 245 201 3, 17 8, 550	850 2, 240 1, 750 829 325 165 2, 64 12, 543

¹ The families in Massachusetts, Connecticut, Colorado, and Washington State are not included because

Both total and home calls by private physicians (M. D.) per 1,000 population show roughly the same relative excess in large cities over small towns and rural areas, 38 and 44 percent, respectively. Clinic calls per 1,000 population (including services to the well and to the sick) show only 11 percent excess for large cities over towns and rural areas, with fewer calls in cities of 5,000-100,000 than in small towns. Ordinarily one might expect more clinic service in large cities, but all communities sampled for this study had a health department or a visiting nurse or both, so that the most rural communities with the least public service were not included. Therefore, the city-rural results for clinic calls in this study are probably atypical.

Calls per 1,000 population by such nonmedical practitioners as osteopaths, chiropractors, and faith healers were 34 percent higher in large cities than in small towns and rural areas, with cities of 5.000-100,000 falling between the two extremes.

Geographic section and volume of medical care.—The great majority of the families surveyed in the Northeast were in New York State, so in this paper the data for that State are used instead of the Northeast. In the West, California supplied a considerable share of the

this table is a summary of the same tabulation made for table 3.

These rates are not comparable with others in this paper (except table 3) because (a) they are built up from individual summary cards without allowance for occasional cases with an unknown number of calls, (b) they are not adjusted for age, (c) they are not based on all of the canvassed families, and (d) the rates for cities of all sizes are simple means of the rates in the 3 city-size classes. 3 All illness, both attended and not attended by doctors.

Calls in connection with illness except that clinic care includes also calls for immunization, well-baby care, and health (including school) examination.

schedules and probably represents conditions that vary from those in Colorado and Washington, the other western States sampled in the survey. Therefore, the geographic sections considered in this study are: (a) New York State, (b) North Central, (c) South, (d) States included in each section are given in footnotes to California. The urban-rural distribution of the surveyed families table 3. differed greatly in these areas and the variation was not typical of the situation in the whole State or section; therefore, the data in table 3 consist of simple averages of rates for three city-size classes 18 for each geographic section.

Table 3.—Services of physicians and other practitioners in connection with illness in four geographic sections 1-7,434 canvassed white families in 14 States, 1928-31

Type of rate	All 4 1 sections	New York State	North Central 1	South 1	California
· .	Simple m	eans of an	nual rates i	n 3 city-si:	ze classes 2
Total illnesses ³ per 1,000 population: Calls ⁴ per 1,000 population: Calls by any practitioner. Calls by all private physicians and specialists. Home calls by private general physicians. Clinic calls ⁴ . Calls by nonmedical practitioners. Calls by any practitioner per total case. Population under observation.	830 2, 641 2, 134 1, 063 311 196 3, 18 32, 686	887 2, 637 2, 049 1, 260 456 132 2, 97 7, 164	791 2, 551 2, 079 899 255 217 3, 23 14, 313	828 2, 621 2, 323 1, 250 223 75 3, 17 7, 554	845 3, 147 2, 161 878 535 451 3, 72 3, 655

¹ The geographic areas used were: North Central, Illinois, Ohio, Michigan, Indiana, Wisconsin, Minnesota, and Kansas; South, District of Columbia, Virginia, West Virginia, Tennessee, Georgia: the Northeast is represented by New York State, and the West by California. The families in Massachusetts, Connecticut, Colorado, and Washington State are not included.

² These rates are not comparable with others in this paper (except table 2) because (a) they are built up

These rates are not comparable with others in this paper (except table 2) occause (a) they are outlit up from individual summary cards without allowance for occasional cases with an unknown number of calls, (b) they are not adjusted for age, (c) they are not based on all of the canvassed families, and (d) they are simple means of rates for 3 city-size classes.

All illness, both attended and not attended by doctors.

Calls in connection with illness except that clinic care includes also calls for immunization, well-baby

care, and health (including school) examination.

There is some variation in the different geographic sections in the illness rate per 1,000 population, but the variation in the volume of medical care is much greater than can be explained by differences in In calls by all practitioners per 1,000 population, the illness rates. only large variation in the different regions is for California, which showed a 19 percent excess over the rate for all regions combined. This high rate for California is accounted for by calls to clinics and to nonmedical practitioners; calls to private physicians are about the same in California as in the other regions. The rate of clinic calls (including services to the well and the sick) per 1,000 surveyed population in California was 72 percent above that for all sections combined, with New York second, with a rate that was 47 percent above the figure for all regions. The North Central and South were low in clinic calls, their rates being 18 and 28 percent, respectively, below

¹⁸ See table 2 for the city-size classes used

that for all sections. The California rate for calls by nonmedical practitioners shows an excess of 130 percent over the rate for all regions, being more than twice as high as the next highest section, the North Central, which was 11 percent above the rate for all regions. New York State and the South had low rates for nonmedical calls, 33 and 62 percent, respectively, below the rate for all sections combined.

Family income and the volume of medical care.—Home, office, and clinic calls on account of illness per 1,000 population are about twice as frequent among families with annual incomes of \$5,000 or over as among those with less than \$1,200 annual income (16, p. 283). Calls by nonmedical practitioners, although small for all groups, show an even greater relative increase with income than calls by physicians, the income group above \$5,000 having about three times as many such calls per 1,000 population as the lowest income group, under \$1,200 per year. Thus, those able to pay are more largely the patrons of the nonmedical practitioners such as osteopaths, chiropractors, and faith healers. Clinic calls, on the other hand, are quite largely concentrated in the low income groups; the rate for clinic calls per 1,000 persons among families with \$5,000 or more income was only one-fourth of that for families with less than \$1,200 income.19 In clinic calls, as in calls by physicians and nonmedical practitioners, the intervening income groups have rates falling logically between the extremes here quoted.

The excess in the volume of medical care received by the higher income groups is due in large part to a higher proportion of cases being attended by a doctor but in part to a higher average number of calls per attended case. In the lowest income group, 66 percent of the cases were attended by some practitioner, as compared with 90 percent for families with \$5,000 or more income. The average number of calls per total case was 66 percent higher, and the average calls per attended case 22 percent higher for the group with incomes of \$5,000 or over than for families with less than \$1,200 annual income.²⁰

IV. DISTRIBUTION OF DOCTORS' CASE AND CALL LOADS ACCORDING TO DIAGNOSIS

The relative frequency of the different diagnosis groups among the cases that consult a doctor is of interest. From the point of view of the doctor, this distribution gives a picture of the diagnosis distribution of his case load. However, the distribution of cases is different

¹⁹ The concentration of clinic calls in low income families would be even greater if private group clinics were excluded and the tabulation limited to public clinics.

²⁰ The report of the Committee on the Costs of Medical Care considers in great detail the relationship of family income to the volume of medical care; further data may be found in that report (16).

from the distribution of calls, because some diseases require more calls than others.

Figure 3 shows first such distributions for cases and calls for all types of practitioners combined. The diseases ²¹ designated as "minor" respiratory constituted 27 percent of all cases attended by any type of practitioner and received 15 percent of all calls to or by

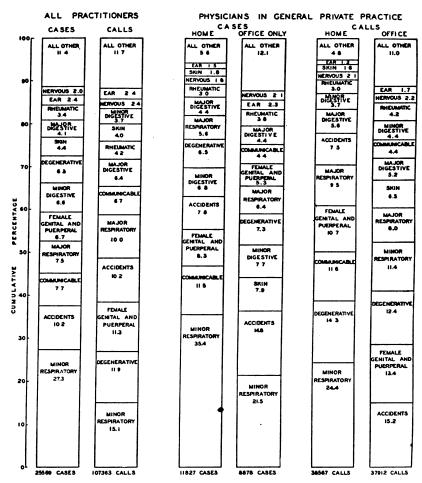


FIGURE 3.—Distribution of attended cases and of doctors' calls according to broad disease groups for the whole practice of all types of healers and for the home as compared with the office practice of private general physicians—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31. (Based on age-adjusted rates in Appendix tables.)

those practitioners. In terms of attended cases, accidental injuries were second, with 10 percent, and the calls on such cases were also 10 percent of the total; however, accidents were exceeded in calls by the

²¹ The diagnosis group names give a general idea of the types of diseases included; for details see Appendix table 5 and its footnotes. Figures 1 and 2 of a preceding paper (15) show graphically the make-up of each group in terms of the frequency of specific diagnoses and the average duration in terms of days in bed.

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degenerative diseases (12 percent of calls) which were seventh in frequency of attended cases (6 percent), and also by female genital and puerperal diagnoses (11 percent of calls) which were fifth in attended cases (7 percent). Communicable diseases were third in frequency of attended cases (8 percent) but sixth in doctors' calls (7 percent).

Relative importance of different diagnoses in home and office practice.—
Of perhaps more interest than the total practice is the distribution according to diagnosis of cases and calls to the home as compared with the office practice of doctors. In this study this distinction was made only for private physicians not designated as specialists, so the comparison will be limited to these general medical practitioners; the cases of such doctors constituted 81 percent of all cases attended by any practitioner, and 72 percent of all calls.

In these data, office cases include only those with all attendance at the office of the physician; office calls, however, include all calls at the office of the physician even though the patient had other calls at home or in a hospital. Home calls include all in which a private physician went to the patient, usually at home but occasionally in a hospital. Figure 3 shows the diagnosis distribution of the case and call loads of the private physician in home and office practice. It is surprising to find that minor respiratory diseases make up 35 percent of all cases with home calls; communicable diseases (11 percent) and female genital and puerperal diagnoses (8 percent) are second and third in frequency. Apparently a home call on a case does not necessarily mean that it is serious or of long duration, but rather that, at the particular time, it was inadvisable for the patient to go to the doctor's office; the inadvisability of such a trip may have been due to the condition of the patient, as in respiratory or puerperal illness, or to the communicable nature of the disease. Of the cases that had office calls only, minor respiratory is also the most frequent diagnosis, 21 percent, as compared with 35 percent for minor respiratory in Rome cases. The next most frequent diagnoses are quite different from those for home cases; accidental injuries are second in office cases (15 percent), skin diseases third (8 percent), and minor digestive disorders fourth (8 percent). Accidental injuries ranked fourth among home cases (8 percent), skin diseases ranked eleventh (2 percent), and minor digestive disorders fifth (7 percent).

The diagnosis distribution of calls perhaps gives a better index of the office as compared with the home practice of physicians. Of all home calls, minor respiratory diseases received the largest proportion, 24 percent, but among the office calls this diagnosis was fourth in frequency, with 11 percent. The diagnosis that received the largest proportion of office calls was accidental injuries, with 15 percent; in terms of home calls, accidental injuries was sixth, with 7 percent.

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The second most frequent group for office calls is female genital and puerperal diagnoses, with 13 percent, as compared with fourth position in the proportion of home calls, with 11 percent; it must be remembered that prenatal calls to the doctor were tabulated as a part of the service received on a maternity case, which procedure probably accounts for the large number of office calls for this diagnosis group. The degenerative diseases are third in office calls (12 percent), and second in home calls (14 percent).

Relative importance of different diagnoses in various types of medical and nonmedical practice.—In this study the type of attendant was recorded in considerable detail; data are available, therefore, for comparing the diagnosis distribution of cases and calls not only for general medical practitioners but also for medical specialists, private and public clinics, osteopaths, chiropractors, and other nonmedical practitioners. Because of the small number of cases attended by some of these practitioners, it was impracticable to build up adjusted rates for each diagnosis group; the rates in table 4 and the percentages in figures 4 and 5 are based on actual cases and calls with no adjustment for the fact that the surveyed group contains an excess of children and young married adults and a deficiency of old people. Therefore, the data in these figures are not strictly comparable with those in figures 3 and 6, which are based on adjusted rates.

Figure 4 shows for each type of practitioner the proportion of his cases that were in each broad diagnosis group, and figure 5 shows the proportion of calls that were made in connection with the same diag-Private physicians not designated as specialists atnosis groups. tended 81 percent of all cases and made 72 percent of all calls in connection with illness, so the diagnosis distribution of their cases may be examined first. Of the cases attended by these general practitioners, 30 percent were minor respiratory diseases and 19 percent of their calls were devoted to such cases. The next diagnoses in order of case frequency are accidental injuries (11 percent), communicable diseases (11 percent), minor digestive (7 percent), major respiratory (6 percent), and female genital and puerperal (6 percent). In terms of calls, minor respiratory diseases (19 percent), and accidental injuries (11 percent) remain first and second, but female genital and puerperal (11 percent) is third, communicable diseases (10 percent) fourth, and degenerative diseases (9 percent), fifth.

The diagnosis distribution of cases attended by private group clinics (fig. 4) is fairly similar to those attended by general practitioners; the chief difference is a smaller percentage of communicable diseases and a larger percentage of skin diseases. The distribution of private group clinic calls (fig. 5) is less similar to general practitioners' calls, but roughly it bears out the above observations about cases.

Public clinics handled fewer minor respiratory and communicable cases and more major respiratory (including respiratory tuberculosis, tonsillectomy, pneumonia, sinusitis, and chronic nasal affections), female genital and puerperal, and accident cases than was true of private general practitioners. In terms of calls, major respiratory (15 percent), female genital and puerperal (13 percent), and communicable (12 percent), were the three most important groups.

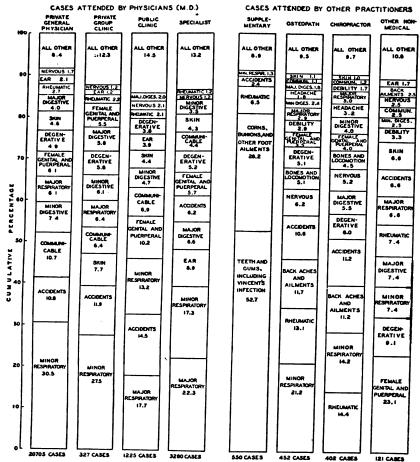


FIGURE 4.—Distribution of cases attended by different types of practitioners according to broad usease groups—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31. (Based on actual cases of all ages with no adjustment for age.)

Among medical specialists of all kinds, 22 percent of the cases were major respiratory, with 17 percent in the minor respiratory group (fig. 4). Next come ear and mastoid (9 percent), major digestive (7 percent), and accidential injuries (6 percent). In terms of calls (fig. 5), major respiratory diseases had 22 percent of the total specialist calls, major digestive, 11 percent, minor respiratory, 11 percent, female

genital and puerperal, 8 percent, and ear and mastoid, 9 percent. In the practice of specialists, major respiratory, major digestive, and ear and mastoid diseases rank considerably higher than in the other types of medical practice that have been examined.

Supplementary practitioners as here used include dentists, chiropodists, and physiotherapists, that is, subspecialties which supplement the work of physicians in the care of illness in a community. It must

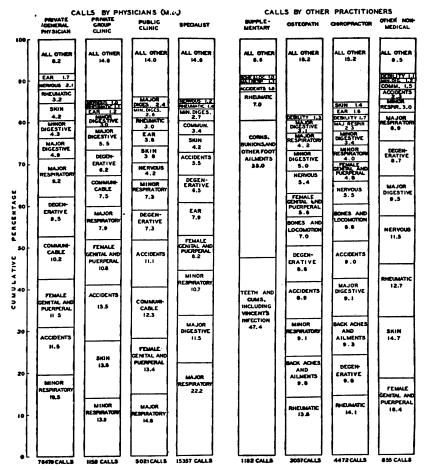


FIGURE 5.—Distribution of calls by different types of practitioners according to broad disease groups—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31. (Based on actual calls on cases of all ages with no adjustment for age.)

be remembered that the only care here considered is that in connection with illness. Of the total of 550 illnesses attended by these practitioners, 356, or 65 percent, were attended by dentists,²² 163, or 30

²² These 356 illnesses attended by dentists are only a small percentage of the total of 10,116 cases of dental care in these families, largely without Illness in the usual sense. See preceding paper for details on all dental care (15). Of the 356 illnesses treated by dentists, 119 cases had a physician and 4 had a nonmedical practitioner in attendance also.

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percent, by chiropodists, 28, or 5 percent, by physiotherapists (without the supervision of a physician), and 3, or 0.5 percent, by optometrists. Since it is a miscellaneous group, the diagnosis distribution is quite different from preceding distributions. Because of the frequency of certain diagnoses for supplementary practitioners, two new classes have been used: Teeth and gums, including Vincent's infection; and corns, bunions, and other foot ailments. For other nonmedical practitioners, the following diagnoses are shown separately for the same reasons of exceptional frequency: backaches and back ailments; affections of the bones, joints, and other organs of locomotion; headache; and debility. These groups are shown in the bars in figures 4 and 5 if they include 2 percent or more of the total cases or calls.

Illnesses associated primarily with the teeth and gums and treated by dentists constitute 53 percent of the cases and are estimated to cause 47 percent of the calls in connection with illness treated by the supplementary practitioner group (figs. 4 and 5). But the dentist's care of illness is important in other categories also. Of the illnesses from rheumatic diseases (including neuralgia and neuritis) that were treated by the supplementary group, three-fourths were dentists' cases, presumably for the treatment or extraction of teeth suspected of being foci of infection responsible for the arthritis or neuritis; the other one-fourth were treated by physiotherapists. Accidental injuries are also treated in dental practice, presumably to repair damage done to the teeth.

Chiropodists' cases of corns, bunions, and other foot ailments constituted 28 percent of the cases and 33 percent of the calls of the supplementary practitioner group.

Osteopaths' cases (fig. 4) tend to be concentrated in a few diagnoses, minor respiratory (21 percent), rheumatic diseases (13 percent), backaches and back ailments (12 percent), and accidents (11 percent). In terms of calls (fig. 5), rheumatic diseases is first (14 percent), followed by backaches and back ailments (10 percent), minor respiratory (9 percent), accidents (9 percent), and degenerative diseases (9 percent).

Chiropractors' cases are somewhat more scattered over the various diagnosis groups. Rheumatic diseases, with 14 percent of the cases and the same percentage of the calls, is first, followed by minor respiratory, with 14 percent of the cases, backaches and back ailments (11 percent), and accidents (11 percent). In terms of calls, degenerative diseases (10 percent), are second to rheumatic diseases; the next four diagnoses, backaches and back ailments, major digestive diseases, accidents, and diseases of the bones and organs of locomotion are each responsible for 9 percent of the calls.

The miscellaneous other nonmedical practitioners include Christian Science and other faith healers, naturopath, midwife, and others.

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Only 121 cases were reported as treated by this type of practitioner; 22 of these, or 18 percent, were births and all were attended by midwives. In terms of calls, also, female genital and puerperal is the largest group.

The lack of definite diagnoses for illnesses treated only by non-medical practitioners tends to increase the number of ill-defined cases; in spite of this tendency the picture seems reasonably true, namely, that it is the various rheumatic and other indefinite chronic pains that bring the patient to a nonmedical practitioner. Aside from this, sprains and other cases where massage therapy is commonly applied also fall into the hands of such practitioners.

Table 4 also shows for each type of practitioner and for each broad diagnosis, the average calls per case attended. For all causes of illness, average calls per attended case of 3.7 for general medical practitioners, 3.5 for private group clinics, 4.1 for public clinics, and 4.7 for medical specialists may be contrasted with average calls per attended case of 6.8 for osteopaths, 11.1 for chiropractors, and 7.1 for other nonmedical practitioners.²³

V. FREQUENCY AND VOLUME OF DOCTORS' CARE OF MALES AND FEMALES FOR BROAD DISEASE GROUPS

The relative importance of different broad diagnosis groups in terms of attended cases and doctors' calls for various kinds of practitioners has been discussed. For all practitioners and for patients of both sexes combined (fig. 3), minor respiratory diseases were by far the most frequent diagnosis for attended cases; in terms of calls by any practitioner the minor respiratory diseases were less overwhelmingly important, the degenerative diseases being a fairly close second, and female genital and puerperal diagnoses having almost as many calls per 1,000 persons of both sexes as the degenerative diseases.

Relative importance for males and females of different diagnoses in attended cases and doctors' calls.—Figure 6 compares males and females with respect to the percentage of all attended cases and of all doctors' calls that were made in connection with the various broad diagnosis groups. Among males, minor respiratory diseases constituted 29 percent of the attended cases, with accidents (15 percent) and communicable diseases (9 percent) as the second and third most frequent types of case. Among females the minor respiratory diseases constituted 26 percent of the attended cases, with female genital (11 percent) as the second cause, followed by accidents (7 percent), and communicable diseases (7 percent).

²² These figures on calls per case are based on actual cases and calls and not on rates corrected for age, as in some of the other tables.

TABLE 4.—Rates 1 per 1,000 total population for illnesses attended and calls by each type of practitioner, by broad diagnosis groups—8,758 canvassed white families in 18 States during 12 consecutive months, 1928–31

[Sole or primary diagnoses only]

	uvaj	or prun	ary cust	10868 0	myj		•				
		Physi	cian (M	I. D.)			1	Nonmed oractitio			
Diagnosis ³ group	Any phy- sician or clinic (all M. D:)	phys	Spe- cial- ist 4	Private group clinic	Public clinic	Supple men- tary s practi- tioner		Chiro- prac- tor	Other on- non- medical practi- tioner		
		Atte	ended ca	ses per	1,000 po	pulation	during	year			
All causes	634	537	85. 1	8.48	31. 78	14. 27	11. 73	10. 43	3. 14		
Minor respiratory diseases	51 45 24	164 33 40 21 58 . 11	14.7 19.0 2.9 5.6 3.7 7.6	2. 33 . 54 . 52 . 49 . 54 7. 10	4. 20 5. 63 1. 48 . 65 2. 18 1. 22	7, 18 8, 67 7, 05 7, 08 7, 08 7, 05	2. 49 . 34 . 29 7. 21 7. 13 7. 05	1. 48 . 31 . 42 . 57 7. 13 7. 08	7, 23 7, 21 7, 08 7, 23 7, 08 7, 05		
hemorrhage, paralysis, neu- ralgia, and neuritis	11	9	. 1.1	7. 10	. 67	7. 08	. 73	. 54	7.08		
eases. Degenerative diseases. Skin diseases Female genital and puerperal	16 30 29	14 26 25	1. 0 4. 5 3. 7	7. 18 . 49 . 65	. 67 1. 19 1. 40	. 93 7. 05 8. 88	1. 53 . 60 7. 13	1. 50 . 62 7. 10	7. 23 . 29 7. 21		
diagnoses Accidental injuries All other diseases	38 65 59	33 58 45	4. 9 5. 2 11. 3	. 47 1. 01 1. 04	3. 24 4. 62 4. 62	. 34 8 10. 87	. 42 1. 25 9 3. 58	. 42 1. 17 9 3. 09	. 73 7. 21 9. 52		
	Annual calls per 1,000 population										
All causes	2, 543	1, 984	398. 4	30. 0	130. 3	30.7	79. 3	116. 0	22. 2		
Minor respiratory diseases Other respiratory diseases Minor digestive diseases Other digestive diseases Communicable diseases Ear and mastoid diseases Nervous diseases except cerebral	293 101 148 234 72	388 183 86 98 202 35	42. 8 88. 3 10. 9 45. 8 13. 4 31. 4	4. 2 2. 4 .9 1. 7 2. 3 7. 4	9. 4 19. 3 3. 4 3. 1 16. 0 4. 9	7.3 85.8 7.1 7.1 7.2 7.1	7. 2 3. 3 4. 0 7 2. 5 7 . 3 7 . 4	4. 6 2. 7 3. 9 10. 6 7 . 8 7 1. 9	7.7 71.5 7.3 72.1 7.3 7.1		
hemorrhage, paralysis, neural- gia, and neuritis. Rheumatism and related diseases. Degenerative diseases. Skin diseases. Female genital and puerperal	51 73 225 109	41 63 188 83	4. 6 5. 4 26. 1 16. 9	7.3 7.3 1.8 4.1	5. 5 3. 9 9. 5 5. 0	7.3 2.2 7.1 82.0	4.3 10.9 6.8 7.2	6. 4 16. 4 11. 3 7 1. 7	7 2. 5 7 2. 8 1. 9 7 3. 3		
diagnoses Accidental injuries All other diseases	281 269 243	228 229 162	32. 6 22. 1 58. 3	3. 2 4. 0 4. 4	17. 5 14. 5 18. 3	. 6 8 19. 0	4.5 7.1 27.8	5. 6 10. 5 139. 7	4.1 7.5 • 2.0		
			Me	an calls	per cas	e attende	d	·			
All causes	4.0	3. 7	4.7	3. 5	4. 1	2. 1	6.8	11.1	7. 1		
Minor respiratory diseases. Other respiratory diseases. Minor digestive diseases. Other digestive diseases. Communicable diseases Ear and mastoid diseases Nervous diseases except cerebral	2. 4 5. 8 2. 2 6. 2 3. 6 4. 1	2. 4 5. 5 2. 2 4. 6 3. 5 3. 1	2. 9 4. 6 3. 7 8. 2 3. 6 4. 1	1. 8 4. 3 1. 7 3. 4 4. 1 (7)	2. 2 3. 4 2. 3 4. 7 7. 3 4. 0	(7) 8.6 (7) (7) (7)	2. 9 9. 8 14. 0 (7) (7) (7)	3. 1 8. 6 9. 4 18. 5 (7)	333333		
hemorrhage, paralysis, neu- ralgia, and neuritis. Rheumatism and related diseases. Degenerative diseases. Skin diseases. Female genital and puerperal	4.7 4.6 7.6 3.8	4. 4 4. 3 7. 2 3. 4	4.3 5.3 5.8 4.6	(7) (7) 3. 7 6. 4	8. 2 5. 8 7. 9 3. 6	(7) 2.3 (7) 2.3	5. 9 7. 2 11. 4 (7)	11. 7 10. 9 18. 2 (⁷)	(7) (6. 7 (7)		
diagnoses Accidental injuries All other diseases	7. 5 4. 1 4. 1	7. 0 3. 9 3. 6	6. 7 4. 2 5. 2	6. 9 4. 0 4. 2	5. 4 3. 1 4. 0	(7) 1.8 1.7	10. 7 5. 7 7. 8	13. 4 9. 0 12. 9	(7) 3. 9		

See footnotes at end of table.

Table 4.—Rates per 1,000 total population for illnesses attended and calls by each type of practitioner, by broad diagnosis groups-8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31—Continued

		Physic	eian (M	. D.)		Supple-		Nonmedical practitioner			
Diagnosis group	Any phy- sician or clinic (all M. D.)	pny-	Spe- cial- ist	Private group clinic	Public clinic	men- tary	Osteo- path	Chiro- prac- tor	Other non- medical practi- tioner		
		Number of cases and calls									
Cases, all causes	24, 432 98, 013	20, 705 76, 479	3, 280 15, 3 57	327 1, 156	1, 225 5, 021	550 1, 182	452 3, 057	402 4, 472	121 855		

¹ Crude rates with no adjustment for age. See note 1 of table 1 for definitions of cases and attendance When one case had two types of attendant, it is counted for both, but total cases for all physicians (M. D.) is an unduplicated count of those attended by one or more physicians.

Sums of case and call rates for the different types of nonmedical practitioners in this table will not add to totals for nonmedical practitioners in table I because: (a) Dentists are not included in the nonmedical group in table I, but chiropodists are included. (b) Cases with two kinds of nonmedical practitioners would count in this table for both practitioners, but would count only once in table I. (c) Attended cases with an unknown number of calls were used in this table as having the average calls for the same detailed diagnosis attended by the same type of practitioner, but in table I they were put in at broad group averages for the several types of practitioners combined. Except for dentists (for whom calls were not recorded), the numbers of attended cases with unknown numbers of calls were relatively few, but they account for small discrepancies in total numbers of calls.

For International List numbers, see table 5. For further details about specific diseases included in each

broad group, see figure 1 and table 2 of preceding paper (15).

3 Private general physicians (M. D.) are those not designated by family informants as specialists; attendance may have been in office, home, or upon a private patient in a hospital. 4 Specialist here refers to a physician so designated by the family informant, regardless of listing in any directory of physicians. A few cases and calls by specialists in clinics are included here and in clinics also (2.0 and 1.7 calls for all diagnoses per 1,000 population for public and private clinics, respectively).

Supplementary practitioner includes dentist, chiropodist, physiotherapist, and optometrist Other nonmedical practitioners include Christian Science or other faith healer, naturopath, midwife, and a few miscellaneous others.

Less than 10 attended cases; mean calls per case not computed.

8 For supplementary practitioners, the following diagnoses included in various broad groups occur frequently:

	Percent	of all—	Classified as—		
	Cases Calls				
For dentists:					
Teeth and gums	48.9	29.6	All other diseases.		
Vincent's angina	3.8	17. 8	Other respiratory diseases.		
Corns and ingrowing pails	5. 5	5.7	Skin diseases.		
Bunions and fallen arches	4.7	7. 2	All other diseases.		
Other foot trouble	18.0	20.1	All other diseases.		

[•] For osteopaths, chiropractors, and other nonmedical practitioners, the following diagnoses included with "all other diseases" occur frequently:

	Osteo Percent	path of all—	Chiror Percent	oractor of all—	Other nonmedical Percent of all—		
	Cases	Calls	Cases	Calls	Cases	Calls	
Backaches and back ailments	11. 7 1. 8	9.8 .9	11. 2 3. 2	9.3 .8	2. 4	0.9	
Bones, joints, and locomotion Debility	5. 1 2. 9	7. 0 1. 3	4. 5 1. 7	8. 8 1. 7	3. 1	1. 0	

In terms of calls (fig. 6), minor respiratory diseases received 17 percent of all calls for males, with accidental injuries second (16 percent), followed by other respiratory (12 percent), and degenerative diseases (12 percent). Among females, the female genital and puerperal diagnoses received the greatest number of calls, 18 percent of the total, followed by minor respiratory (14 percent), degenerative (12 percent), and major respiratory diseases (9 percent).

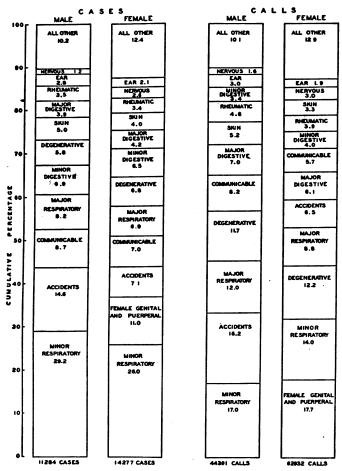


FIGURE 6.—Distribution for males and females of attended cases and calls by all practitioners according to broad disease groups—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31. (Based on age-adjusted rates in Appendix tables 5 and 8.)

Frequency of attended cases and volume of doctors' calls at specific ages for each sex.—The comparison of the frequency of attended cases and of doctors' calls upon illness from all causes which was discussed in a preceding section may be extended to cases of the various diagnoses. Figures 7 and 8 show several types of rates for males and

females of specific ages, namely, (a) attended cases per 1,000 population, (b) total doctors' calls per 1,000 population, (c) home calls by private general physicians per 1,000 population, and (d) total calls per attended case. Appendix tables 5, 8, 10, and 11 show the data plotted in figures 7 and 8; appendix tables 6 and 9 show similar data for cases and calls by private physicians not designated as specialists; and table 7 shows cases attended at home by these private general physicians.

In terms of attended cases per 1,000 persons, the rates are almost invariably higher for women than for men. Of the total cases reported in the whole study, 77 percent of those among males and 79 percent of those among females were attended by a physician or other practitioner (table 1); so that the rates for attended cases reflect quite largely the same differences between the sexes that were noted for all cases in a preceding paper (14).

The percentage of cases of all ages that were attended by a doctor ranges in the 13 broad diagnosis groups from 64 for minor respiratory diseases to 95 for degenerative diseases and 97 percent for female genital and puerperal diagnoses. In every one of the 12 diagnosis groups common to the two sexes, the percentage of cases attended by a doctor is nearly the same for males and females; the actual differences between the percentages range from zero for communicable diseases to 4.5 for rheumatic diseases. Thus, the generally higher incidence of attended cases among women than among men which is seen in figures 7 and 8 reflects more illness among women rather than more frequent medical attendance upon the same amount of illness. The same factor is reflected to a considerable extent in total calls and home calls per 1,000 population; it is seen also in figures 7 and 8 that the average calls per attended case do not differ greatly as between the sexes in any of the diagnosis groups.

Similarly, the age curves in these charts for attended cases and calls per 1,000 population reflect largely the age incidence (14) of the various diagnoses rather than variation with age in the proportion of cases attended or in doctors' calls per case. Thus, for most of the diagnosis groups there is less age variation in calls per attended case than in the incidence of attended cases or the volume of either total or home calls per 1,000 population.

A detailed discussion of the curves in figures 7 and 8 does not seem necessary, but a few exceptions to the general rules pointed out above may be noted. (a) In the minor respiratory diseases the home calls per 1,000 adult women show a larger relative excess over those for

²⁴ The percentage of cases attended by a doctor is given by age and sex for all diagnoses in table 1. While the percentages are not given for the diagnosis groups, they can be obtained by age and sex by relating the rates for attended cases in Appendix table 5 of this paper to corresponding rates for all cases in Appendix table 7 of a preceding paper (14).

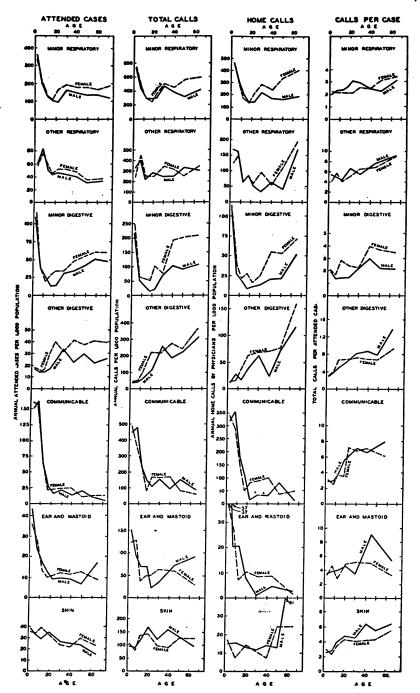


FIGURE 7.—Age and sex variation in attended cases and doctors' calls for illness from broad disease groups, as measured by various types of rates—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31. (Scales are so made that the adjusted rate for all ages of both sexes represents an interval on the vertical rate scale that corresponds to 30 years on the horizontal age scale. Rates are given in Appendix tables 5-11, with footnotes for broader age groups used in some of the graphs.)

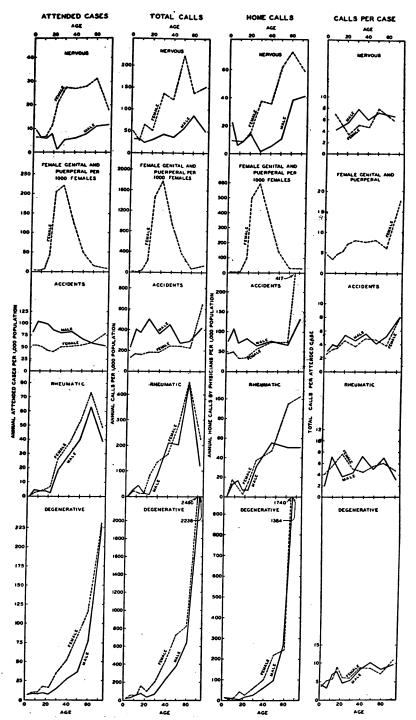


Figure 8.—Age and sex variation in attended cases and doctors' calls for illness from broad disease groups (continued).

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men than do the total calls or the attended cases. (b) The total and home calls on adult women for minor digestive diseases show a larger relative excess over those for men than does the incidence of these diagnoses (14). (c) Home calls per 1,000 for minor digestive diseases among children under 5 years and for persons over 55 years of age are relatively greater than is the incidence of attended cases at these ages. (d) The calls per attended case of communicable disease are definitely greater for persons over 20 years of age than for children under 15. This rise with age may be due in part to a greater severity of some communicable diseases among adults, and in part to the changing character of the diseases included in the group; that is, in the adult ages the common childhood diseases would constitute a smaller proportion of the total cases classified as communicable than would be true in the younger ages.

As in total incidence and days of sickness, the nervous diseases show the largest differences between the sexes with respect to attended cases and with respect to total and home calls per 1,000 persons under observation. However, the calls per attended case were not greatly different for the two sexes.

VI. SUMMARY

Data on the frequency of illness and the volume of medical care received were recorded for a 12-month period between 1928 and 1931 by periodic canvasses of 8,758 white families in 130 localities in 18 States. The visits were made at intervals of 2 to 4 months. Illnesses causing symptoms that lasted for one day or longer within the study year were recorded, together with the number of doctors' calls on the case.

The surveyed families include representation from nearly all geographic sections, from rural, urban, and metropolitan areas, from all income classes, and of both native and foreign-born persons.

The recorded illness from all causes amounted to 823 cases per 1,000 persons. Of the total cases, 79 percent were attended by some type of practitioner, a rate of 647 attended cases per 1,000 population. There were 4.6 calls by all practitioners per attended case, with a total of 2,949 calls during the year per 1,000 canvassed population. Of the total attended cases, 81 percent were attended by physicians in general practice, and these doctors made 72 percent of the total calls. Of the 526 cases per 1,000 population that were attended by physicians in general practice, 294 per 1,000 had one or more home calls, the other 232 having office calls only. Fifty-six percent of these cases had home calls and 50 percent of the total calls by these physicians were home calls.

Of the total attended cases, 12 percent had a physician who was designated by the family as a specialist; these specialists made 14 per-

cent of the total calls. Of the total attended cases 5 percent were attended by public clinics and another 1 percent by private group clinics. Supplementary practitioners such as dentists and chiropodists and nonmedical practitioners such as osteopaths and chiropractors attended 5 percent of all attended illnesses, but their calls amounted to 9 percent of the total calls.²⁵

The age curves of attended cases and calls per 1,000 population vary considerably for different types of practitioners, and for home as compared with office attendance. Considering total cases and calls by all practitioners there is a large excess in the rates per 1,000 for adult women over adult men of corresponding ages, even when female genital and puerperal diagnoses are excluded (figs. 1 and 2). This excess is due to more illness rather than to more doctors' calls per case.

The volume of medical care in terms of doctors' calls per 1,000 population is greater in large cities than in small towns and rural areas; and there is some geographic variation also. Striking geographic differences occur in the extent of care by nonmedical practitioners and by clinics; the West, as represented by California, stands at the top in nonmedical practice and also in clinic practice, with New York State second in clinic practice but below the average in nonmedical practice.

These data afford interesting indications of the diagnosis distribution of the practice of different types of doctors. For all practitioners, 27 percent of the cases and 15 percent of the calls are due to minor respiratory diseases, that being the most frequent category. In home practice, the minor respiratory diseases are even more important, constituting 35 percent of all cases with a home call and 24 percent of the total home calls. In terms of office calls, however, the minor respiratory diseases are fourth in frequency, being outranked by accidental injuries, female genital and puerperal diagnoses, and the degenerative diseases of old age (fig. 3).

The diagnosis distribution of cases and calls varies markedly as between physicians and nonmedical practitioners such as osteopaths and chiropractors (figs. 4 and 5).

The age curves and the differences between the sexes in attended cases and doctors' calls per 1,000 population for the several diagnosis groups reflect differences in incidence more than differences in the extent of medical care. In other words, there is less variation with age and less variation between the sexes in the number of doctors' calls per attended case than in the number of attended cases and calls per 1,000 population (figs. 7 and 8).

^{**} Since some of the cases had more than one type of attendant, the sum of the above percentages of cases amounts to more than 100 percent.

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VIII. APPENDIX

TABLE 5.—Illnesses from certain causes attended by any practitioner 1 per 1,000 population of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928–31

[Sole or primary diagnoses only]

	A	ll age	g \$;	Ag	•				
Sex and diagnosis ² group with International List numbers, 1920 revision	Number of at- tended cases	Adjusted 4	Crude	Under 5	I	10-14	15-19	20-24	25-34	35-44	45-54	56-64	65 and over
		Case	s¹ ati	tende	l by a	ny pr	ractiti ye		er 1,0	00 po	pulati	ion du	ring
Minor respiratory diseases (11, pt. 97, 98, 99, pt. 107, pt. 109): Both sexes. Male. Female. Other respiratory diseases (31, pt. 97, 100–106, pt. 107, pt. 109): Both sexes. Male. Female.	3, 406 3, 875 1, 991 943	163. 1 188. 2 48. 2 46. 1	180. 2 197. 4 51. 7 49. 9	366. 8 339. 4 58. 6 59. 5	195. 0 209. 7 79. 8 83. 3	126. 9 136. 3 53. 9 50. 0	110. 0 114. 2 43. 0 42. 6	99. 6 168. 2 49. 1 45. 9	166. 5 195. 8 47. 9 43. 3	151. 7 181. 6 43. 2 39. 9	138. 8 179. 9 32. 2 29. 8	139. 3 167. 4 35. 3	121. 3 185. 4 34. 1 20. 6
Minor digestive diseases (15, pt. 16, 112-114): Both sexes. Male Female. Other digestive diseases (pt. 108, 110, 111, 115-127): Both sexes.		43. 1 38. 8 47. 3	46. 0 43. 0 48. 9	111. 4 108. 6 115. 1	37. 8 37. 9 37. 7	21. 2 23. 0	21. 0 13. 1 28. 9	25. 5 14. 5 33. 5	32. 4 30. 8 33. 7	41. 1 34. 2 48. 1	46. 9 40. 7 54. 4	55. 0 51. 0 59. 8	54. 1 48. 1 58. 8
Male	391 554	22. 1 30. 6	20. 7 28. 2	16. 7 17. 5	13. 5 14. 2	13. 9 16. 8	16. 4 30. 2	23. 5 39. 2	32. 9 31. 2	22. 2 41. 0	29. 3 37. 2		25. 2
Both sexes. Male Female Ear and mastoid diseases (86):	2, 496 1, 224 1, 272	49. 5 48. 5 50. 3	64. 8 64. 8 64. 8	154. 0 150. 3 159. 1	159. 8 162. 1 157. 5	63. 9 62. 1 65. 7	24. 3 26. 9 21. 7	20. 3 16. 8 22. 9	22. 7 22. 1 23. 2	18. 9 14. 1 23. 7	16. 4 20. 6 11. 3	11. 5 11. 2 12. 0	9. 0 4. 6 12. 5
Both sexes. Male Female Nervous diseases except cerebral hemorrhage, paralysis, neural- gia, and neuritis (70-73, 76, 81, 84):	337	15. 3 15. 4 15. 1	17.8	43. 1	25. 7 24. 1 27. 3		12.4	9. 9 8. 9 10. 6	9. 6	10. 1 8. 7 11. 5		19. 9	9. 0 11. 4 7. 1
Both sexes Male Female Rheumatism and related dis-	132	13. 1 6. 9 18. 9	7. 0	9. 3	6. 3 6. 4 6. 2	6. 3 6. 1 6. 6	9. 5 7. 9 11. 2		17. 9 5. 4 27. 2	6.0	16. 7 7. 6 27. 9	11. 2	11.4
eases (51, 52, 82, pt. 158): Both sexes	307	22. 2 19. 5 24. 7	16. 2	.4 .4 .4	4. 0 5. 0 3. 1	3. 7 3. 9 3. 5	4.3 3.9 4.6	2. 2	23. 2 18. 7 26. 6		39.6	67. 9 63. 4 73. 2	38. 9

ing paper (15).

3 "All ages" includes a few of unknown age; "both sexes" includes a few of unknown sex.

Rates plotted as 55 and over:

¹ Cases represent periods of illness classified according to the primary cause (for details about classification of causes, see a preceding paper (1)). Cases include those with prior onset that extended into the study year, attended cases include a few (0.4 percent) with all calls prior to the study year, and some hospital cases with no calls because all service was rendered in the hospital by the hospital staff.

Attended cases (disabling and nondisabling) include all attended by 1 or more practitioners, that is, physician, specialist, hospital, clinic, dentist (see notes to table 1), chiropodist, osteopath, chiropractor, midwife, or other healer. Cases attended by nurse alone are not counted as attended in this study because her work is usually supervised by some other practitioner primarily responsible for the case.

² For further details about specific diseases included in each broad group, see figure 1 and table 2 of preceding paper (15).

⁴ Rates in the form of cases or calls per 1,000 population are adjusted by the direct method to the age distribution of the white population of the death registration States in 1930 as a standard population; this population is given for specific ages in table 1 of a preceding paper (4). The adjustment method involves the weighting of the age specific rates for the canvassed population according to the age distribution of the standard population. The details of the process are given under the heading of "corrected death rates" the weighting of the age specific rates for the calvassed population. The details of the process are given under the heading of "corrected death rate in Pearl (17), pp. 269-271.

Rates plotted in figures 7 and 8 as 15-24: Skin, male 35.1, female 33.1. Rates plotted as 55 and ov Other respiratory, male 33.0, female 36.6; ear and mastoid, male 16.9, female 8.9; skin, male 14.5, female 22.8.

Table 5.—Illnesses from certain causes attended by any practitioner per 1,000 population of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31—Continued

	A	ll age	8					A	ge				
Sex and diagnosis group with International List numbers, 1920 revision	Number of at- tended cases	Adjusted	Crude	Under 5	6.5	10-14	16-19	20-24	25-34	35-44	45-54	55-64	65 and over
		Cas	es att	ended	by a	ny pra		ner p	er 1,00	Ю рор	ulatio	n dur	ing
Degenerative diseases (43-50, 57, 74, 75, 83, 87-92, pt. 93, pt. 96, 128, 129, 130, pt. 131, 132, pt. 133, 135): Both sexes. Male. Female. Skin diseases (151-154, pt. 205): Both sexes. Male. Female genital and puerperal diagnoses (137-150): Both sexes. Female. Accidental injuries (pt. 85, 165-203): Both sexes. Male. Female. All other diseases (53-55, 56-69, pt. 108, pt. 131, pt. 133, 134, 136, 155-157, pt. 168, 159-164, 204, pt. 205).	435 726 1, 146 555 591 1, 491 1, 491 2, 595	32. 6 49. 3 28. 4 27. 7 29. 1 43. 4 79. 6 66. 0 81. 7	23. 0 37. 0 29. 7 29. 4 30. 1 38. 7 76. 0 67. 3 84. 8	7. 5 7. 5 37. 2 38. 8 35. 8 1. 9 1. 9 66. 0 79. 4	10. 7 33. 4 33. 0 33. 9 . 7 1. 4 77. 7 103. 5	8. 3 10. 1 34. 2 29. 1 39. 3	18. 4 40. 3 41. 3 39. 4 21. 0 42. 0 69. 2 96. 9	7. 8 16. 3 25. 0 24. 6 25. 3 117. 0 202. 4 58. 0 85. 0	14. 2 34. 9 25. 0 26. 6 23. 8 126. 8 220. 8	27. 5 52. 9 23. 4 24. 8 22. 0 60. 9 122. 3 66. 1 81. 6	36. 9 83. 0 26. 3 23. 8 29. 2 20. 6 45. 8 60. 3 66. 1	12.4 16.4 6.1 13.5 58.4 57.2	226. 5 229. 9 25. 1 18. 3 30. 3 4. 0 7. 1 67. 1 52. 6
Both sexes	2, 849 1, 139 1, 706	73. 8 56. 8 89. 8	73. 9 60. 3 86. 9	102. 3 107. 5 96. 1	53. 7 51. 4 56. 0	48. 4 42. 6 54. 3	50. 2 41. 3 59. 1	60. 4 28. 0 84. 1	52. 5	82. 6 59. 1 106. 4	61.8	63.4	66.4

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Table 6.—Illnesses from certain causes attended (in home or office) by private general 1 physicians per 1,000 population of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928–31

	A	ll age	s 3					A	.ge				
Sex and diagnosis ³ group	Number of cases attended by physicians	Adjusted •	Crude	Under 8	1	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65 and over
		Ct	ises a	ttende	d by		te gen ion du			cians	per 1,	000 po	pu-
Minor respiratory diseases: Both sexes Male Female	6, 314 2, 950 3, 362	154. 1 142. 8 164. 4	163. 8 156. 1 171. 3	293, 3 303, 4 234, 3	174. 8 170. 6 178. 9	116. 5 110. 4 122. 6	99. 7 98. 9 100. 5	126. 5 92. 8 151. 0	163. 8 149. 9 174. 2	143. 3 130. 2 156. 6	139. 4 124. 7 157. 4	136. 5 124. 4 151. 0	141. 3 109. 8 165. 8
Other respiratory diseases: Both sexes Male Female Minor digestive diseases:	1, 269 598 670	31. 4 29. 7	32. 9 31. 6	40.8 42.0	47. 2 50. 0	29.3	28. 2 28. 2	34. 9 32. 4	31.7 27.9	25. 8 23. 5	21. 5 17. 9	25. 8 33. 6	31.1 16.0
Both sexes	710 824	34.4	37.6		32.6	21.3	19.7 13.1 26.3	14.5	28. 7 27. 1 30. 0	31.6	37.4	46.0	43.5
Both sexes	827 344 483	19. 4 26. 9	18. 2 24. 6	14. 2 15. 3	12.8 12.4	12. 2 13. 2	24.3	20. 1 37. 5	30. 8 28. 7	18. 5 35. 2	25. 5 33. 9	14. 9 32. 9	22. 9 35. 7
Both sexes	2, 219 1, 092 1, 127 428	43. 5 44. 7	57. 8 57. 4	1	143. 3 139. 9	53. 9 56. 5	24. 9 19. 0	15.7	20. 6 20. 4 20. 7 7. 6	13. 1 21. 3	19. 5 10. 6	11. 2 12. 0	4. 6 12. 5
MaleFemale Nervous diseases except cerebral hemorrhage, paralysis,	214 214	9. 5 9. 7	11. 3 10. 9	25. 8 31. 0 20. 5	14. 9 17. 6	10. 4 10. 1	6. 5 5. 3	5. 6	5. 8 9. 0	4.4	3.8	11. 2	6.9
neuralgia, and neuritis: Both sexes	359 96 263	5. 1	9. 3 5. 1 13. 4	7. 1	5. 3	3. 7 3. 5 4. 0	6.5	11. 8 1. 1 19. 6	3. 7	4.4	4. 9	17.0 8.7 26.9	9. 2
eases: Both sexes	556 246 310	15.6	14. 4 13. 0 15. 8	.4 .4 .4	3. 3 4. 3 2. 4	3. 3 3. 0 3. 5	3. 9	3.8 2.2 4.9	19. 0 15. 0 21. 9	23.8	30. 4		32.0
Both sexes Male Female Skin diseases:	1,008 374 634	36. 0 28. 6 43. 6	26. 2 19. 8 32. 3	6. 3 6. 1 6. 7	7. 5 8. 5 6. 6	7. 2 7. 0 7. 5		10. 9 6. 7 13. 9	23. 2 13. 3 30. 6	22. 5 46. 8	ĺ	64. 7 100. 1	
Both sexes Male Female Female genital and puerperal	947 469 478	23. 5 23. 7 23. 5	24. 6 24. 8 24. 4			27. 6 26-1 29. 1	34. 1 36. 0 32. 2	19. 3 20. 1 18. 8	24. 1	21. 5		13. 6 12. 4 14. 9	16.0
diagnoses: Both sexes	1, 260 1, 260 2, 243	36. 7 67. 4 57. 1	32. 7 64. 2 58. 2	. 4 . 7 57. 0	.3 .7 67.4	2.0 4.0	36. 8	172. 2	- 1	102. 3	17. 6 39. 2	4. 8 10. 5 49. 6	4. 0 7. 1 60. 1
MaleFemale	1, 392 851	70. 9 44. 0	73. 7 43. 4	69. 8 44. 0	90. 4 44. 9	87. 8 41. 0	85. 1 32. 8	73. 8 33. 5	69. 5 45. 7	68. 1 41. 3	58. 5 45. 8	49. 8 49. 3	43. 5 73. 1
Both sexes Male Female	712 1,027	34. 9 52. 7	37. 7 52. 3	82. 3 67. 8	30. 1 37. 7	24. 8 29. 6	32. 1 24. 9 39. 4	12. 3 55. 5	29. 1 60. 8	32. 6 57. 3	34. 7 66. 4	47. 3 52. 3	41. 2 53. 5

¹ Physicians (M. D.) not designated by family informants as specialists; attendance may have been in office, home, or upon a private patient in a hospital.

2 For International List numbers, see table 5. For further details about specific diseases included in each broad group, see figure 1 and table 2 of preceding paper (15).

3 "All ages" includes a few of unknown age; "both sexes" includes a few of unknown sex.

4 Rates adjusted by the direct method as described in note to table 5.

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Table 7.—Illnesses from certain causes attended at home 1 by private general physicians per 1,000 population of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928–31

	A	ll age	s *					Age	,				
Sex and diagnosis ³ group	Number of cases with home calls	Adjusted 4	Crude	Under 5	1	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65 and over
			Cases	with	home		1 by p		ian pe	r 1,000) рорі	ılatio	n
Minor respiratory diseases: Both sexes Male Female Other respiratory diseases:	4, 348 2, 008 2, 339	104. 2 94. 6 113. 0	112. 8 106. 3 119. 2	222. 230. 216.	7 131. 6 1 130. 1 1 133. 0	82. 1 80. 8 83. 4	58.3	80. 7 61. 5 94. 7	104. 6 89. 9 115. 5	87. 4 72. 5 102. 3	86. 8 73. 7 102. 9	85. 5 75. 9 97. 2	111. 2 80. 1 135. 5
Both sexes Male Female Minor digestive diseases:	309 364	15.0	18.5	30.6 28.3	25. 2 25. 9	12.6 11.5	13. 8 15. 1	11. 2 20. 4	10.8 16.7	9. 4 13. 2	8. 7 13. 9	18. 7 10. 5	16.0 28.5
Both sexes	847 357 490 452	16. 2 23. 8	18. 9 25. 0	55. 2 63. 0	20.6 23.5	12. 2	7. 2 15. 1	6. 7 11. 4	7. 9 15. 1	10. 1 18. 3	13.0	19. 9 32. 9	20.6 41.0
Male Female Communicable diseases:	169 283 1, 748	9. 4 16. 2 33. 9	8. 9 14. 4 45. 4	7. 8 6. 3	8.9	7. 0 9. 3	8. 5 15. 1 14. 8	7. 8 22. 0	12. 5 19. 1	7.1	11. 9 17. 9	7.5	16.0 28.5
Male	850 898 213	32. 7 34. 9 4. 3	45. 8 5. 5	117. 7 17. 4		3. 9	11.8 1.3	2.8	14.5 1.8	8. 1 14. 2	13. 0 4. 6 2. 4	2.0	8.9
MaleFemale	112 101	4. 2 4. 3			8. 5 11. 7					2.0 1.4	1. 1 4. 0	3. 0	
Both sexes Male Female Rheumatism and related dis-	182 55 127	5. 3 3. 1 7. 4	2.9	5. 3 6. 4 4. 1	2.1	1.3 1.3 1.3	4.6	5. 7 1. 1 9. 0	.8	4.9 1.0 8.8	2. 7	12. 2 7. 5 17. 9	9. 0 9. 2 8. 9
eases: Both sexes	280 114 166	8. 9 7. 1 10. 6	7. 3 6. 0 8. 5	. 2 . 4	3. 0 3. 9 2. 1	2.4 2.6 2.2	2.6	2. 4 1. 1 3. 3	6.2	9.4	14.6	23. 8 17. 4 31. 4	16.0
Both sexes Male Female Skin diseases:	488 172 316	19. 2 14. 5 23. 7	9. 1 16. 1	2. 2 2. 1 2. 2	2. 5 2. 1	3. 1 2. 6 3. 5	4.6 1.3 7.9	5. 7 2. 2 8. 2		13. 2 9. 1 17. 3	23. 3 13. 6 35. 2	29.9	154. 3 135. 0 169. 3
Both sexes Male Female Female genital and puerperal diagnoses:	207 105 102	5. 1 5. 2 5. 1	5. 4 5. 6 5. 2	9. 1 9. 6 8. 6	5. 8 6. 0 5. 5	3. 9 5. 6 2. 2	7. 5 6. 5 8. 5	2. 4 2. 2 2. 4	4. 4 5. 4 8. 7	3. 7 3. 4 4. 1	5. 1 3. 8 6. 6	4.1 3.7 4.5	7.0 6.9 7.1
Both sexes	841 841 876	24. 5 44. 8 22. 8	21. 8 42. 8 22. 7	. 2 . 4 26. 3	. 2 . 3 26. 1	. 7 1. 3 20. 8	11. 5 23. 0 18. 0	68. 0 117. 6 17. 9		33. 9 68. 1 21. 1	9.8 21.9 20.9	2. 7 6. 0 26. 5	3. 0 5. 8 40. 1
Male Female All other diseases: Both sexes	477 399 671	24. 2 21. 5 16. 4	25. 2 20. 3 17. 4	31. 0 21. 6 41. 4	31. 9 20. 4 14. 0	23. 9 17. 6 8. 1	26. 2 9. 8 7. 9	23. 5 13. 9 8. 5	20. 8 19. 8 14. 7	22. 5 19. 7 15. 0	20. 1 21. 9 16. 4	21. 1 32. 9	22. 9 53. 5 27. 1
MaleFemale	273 396	12. 1 20. 1	14. 4 20. 2	46. 7	11.3	7. 8 8. 4	4.6	8. 4		9.4	13. 6	11. 2	16.0

¹ Including all cases (disabling and nondisabling) with 1 or more calls to the home of the patient by private physicians (M. D.) not designated by family informants as specialists.
² For International List numbers, see table 5. For further details about specific diseases included in each broad group, see figure 1 and table 2 of preceding paper (15).
² "All ages" includes a few of unknown age; "both sexes" includes a few of unknown sex.
⁴ Rates adjusted by the direct method as described in note to table 5.

TABLE 8.—Calls by any practitioner in connection with illness from certain causes per 1,000 population of specific ages for each sex-8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31.

			 -		BRHOS		-7.						—
		lages	•					Ag	(e •				
Sex and diagnosis group	Number of calls	Adjusted •	Crude	Under 6	9 2	10-14	15-10	20-24	26-34	35-44	46-54	86-64	65 and over
	Z Z		Ann	ıal ca	lls ¹ b	y any	pract	itione	r per	1,000 p	popul	ation	
Minor respiratory diseases: Both sexes. Male. Female.	8, 186	446 410 479	458 433 482	750 752 753	452 445 460	297 297 297	274 292 255	343 310 367	488	415 378 452	428 317 564	489 511 463	
Other respiratory diseases: Both sexes Male Female	11, 548 5, 522	296 288 300	300 292 307	286 326 244	422 402 441	230 216 244	235 243 227	296 255 254	298 243	280 243 316	292 326 250	308 359 245	332 192
Minor digestive diseases: Both sexes Male Female	4, 222 1, 659 2, 563	108 81 136	110 88 131	231 217 246	59 53 64	44 33 55	35 18 53	68 21 103	74 69	147 102 193	141 92 201	152 78 241	163
Other digestive diseases: Both sexes Male Female	6, 315 2, 732	189 168 210	164 145 183	47 45 50	51 50 53	90 68 112	134 111 156	235 130 312	242	234 190 278	234 225 244	384 327 453	266 275 258
Communicable diseases: Both sexes Male Female		197 197 194	235 238 232	466 447 490	436 476 397	241 236 247	112 147 77	138 104 163	157 154 150	130 92 169	119 148 84	80 114 39	62 39 80
Ear and mastoid diseases: Both sexes Male Female	2,977	69 72 65	77 81 74	138 152 124	112 95 129	54 70 38	59 69 49	39 23 51	51 34 63	84 103 64	38 24 56	74 104 37	42 69 21
Nervous diseases except cere- bral hemorrhage, paralysis, neuralgia, and neuritis: Both sexes	2, 491	71	65	38	30	43	44	35	95	78	130	109	106
Male	702 1, 789	39 103	37 91	32 45	33 27	22 64	43 45	4 57	42 134	35 122	55 221	86 136	48 152
Both sexes	1,794 2 107	123 111 132	101 95 107	1 1 1	22 24 20	29 43 15	14 14 14	- 49 8 78	111 79 135	189 209 168	239 202 284	445 444 447	178 119 225
Degenerative diseases: Both sexes Male Female Skin diseases:	9, 411 3, 582 5, 829	350 283 417	244 190 297	30 31 29	46 34 57	58 57 59	121 77 166	75 37 102	154 78 211	343 234 453	534 377 726	637	2, 380 2, 23 8 2, 4 90
Both sexes	4, 510 2, 345 2, 165	119 125 114	117 124 110	102 98 107	86 91 82	125 116 134	172 199 146	126 109 140	107 120 97	125 158 92	130 132 127	88 65 117	138 144 134
Female genital and puerperal diagnoses: Both sexes Female	11, 425 11, 425	332 608	296 582	4 9	2 5	9 19	111 223	848 1, 467	1, 016 1, 770	467 938	166 369	37 81	70 125
Both sexes		302 390 222	287 374 203	185 231 138	293 416 174	275 379 169	294 397 190	389 683 175	259 360 185	352 457 246	259 272 244	261 291 226	550 426 64 7
All other diseases: Both sexes Male Female	12.785	346 244 442	332 252 407	347 327 358	189 221 159	215 174 256	213 162 264	273 85 410	359 213 468	404 299 509	570 392 788	376 213 573	532 355 670

¹ Includes calls (home, office, clinic) by any practitioner on all cases (disabling and nondisabling); that is, by physician, specialist, clinic, chiropodist, osteopath, chiroporactor, midwife, or other healer, except dentist (see notes to table 1). Services to patients in hospitals by the hospital staff are not counted as calls, but calls by private physicians are counted. Calls by nurse are not counted as her work is usually supervised by some other practitioner primarily responsible for the case. Calls include those within the study year only, but the case may have had its onset prior to the study year or have been still sick at the end of the year. In computing total calls, cases with an unknown number of calls were put in at an average based on cases of

In computing total calls, cases with an unknown number of calls were put in at an average based on cases of the same diagnosis group with known numbers of calls, exclusive of the few cases with 100 or more calls.

* For International List numbers, see table 5. For further details about specific diseases included in each broad group, see figure 1 and table 2 of preceding paper (15).

* "All ages" includes a few of unknown age; "both sexes" includes a few of unknown sex.

* Rates adjusted by the direct method as described in note to table 5.

* Rates plotted in figures 7 and 8 as 15-24: Other respiratory, male 284, female 239; other digestive, male 118, female 226; nervous, male 29, female 51; skin, male 166, female 143; accidents, male 503. female 153. Rates plotted as 35-54: Ear and mastoid, male 73, female 61. Rates plotted as 55 and over: Minor respiratory, male 244, female 660; other respiratory, male 301, female 334; minor digestive, male 306, female 207; other digestive, male 309, female 364; communicable, male 88, female 58; ear and mastoid, male 92, female 30; skin, male 93, female 124.

Table 9.—Calls by private general 1 physicians in connection with illness from certain causes per 1,000 population of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928–31

	All ages 3		Ė										
	_ A	ll age	8 8			,		A	ge				
Sex and diagnosis ³ group	Number of calls by physicians	Adjusted 4	Crude	Under 5	2	10-14	15-19	20-24	25-34	35-44	19-97	19-99	65 and over
		An	nual c	alls b	y priv	ate ge	neral	¹ phy	sician	s per 1	,000 j	opul	ation
Minor respiratory diseases: Both sexes	6,883	343	364	624	392	266		219	391		369 269 491	433	247
FemaleOther respiratory diseases: Both sexes	7, 041 3, 532	185 187 181	183 187	192 225	244 265	143 132	152	214 279	175 125	149 157	146 131 164	227 301	295 165
Minor digestive diseases: Both sexes	3, 306 1, 395	86 70 102	86 74	176	47	35 31	35 18 53	57 21	60 60	106 76 136	100 74 132	130 76	150 158
Other digestive diseases: Both sexes Male Female Communicable diseases:	1,669	113 101 124	98 88 107	30 27 34	37	39 30 47	75 81 70	134 64 184	154 187 130	131 92 170	167 164 171	203 206 199	82
Both sexes	3, 891	167 167 165	202 206 198	407 391 428	399 438 362	204 215 192	105 138 71	87 64 104	114 83 137	100 72 129	115 141 83	79 114 36	34 80
Both sexes Male Female Nervous diseases except cerebral hemorrhage, paralysis,	1, 331 624 707	30 27 83	35 33 36	76 86 65	47 40 54	28 40 17	19 20 18	19 8 28	26 10 38	22 20 24	29 15 47	19 24 13	13 23 5
neuralgia, and neuritis: Both sexes	1, 568 457 1, 111	46 25 65	41 24 57	24 25 23	19 20 19	18 18 18	32 34 31	32 4 52	58 13 91	55 25 85	69 35 111	80 55 111	73 41 98
eases: Both sexes Male Female Degenerative diseases:	2, 415 1, 092 1, 323	76 68 83	63 58 67	1 1 1	19 20 17	19 23 15	11 14 9	41 8 64	79 55 97	109 120 97	139 119 163	248 255 241	130 89 162
Both sexes Male Female Skin diseases:	7, 258 2, 941 4, 317	283 240 326	188 156 220	25 23 27	27 28 27	33 35 31	92 62 123	62 34 83	98 57 129	239 207 271	409 279 569	464	2, 209 2, 101 2, 294
Both sexes Male Female Female genital and puerperal	3, 201 1, 680 1, 521	86 93 80	83 89 78	70 55 86	64 70 58	86 104 68	106 106 105	105 82 122	76 95 62	88 109 66	99 102 94	65 63 67	113 137 94
diagnoses: Both sexes: Female	8, 792 8, 792	256 469	228 448	24	1	9 19	99 199	663 1, 147	779 1, 356	350 703	135 301	28 61	42 75
Both sexes Male Female All other diseases:	8, 808 5, 804 3, 004	241 322 167	229 307 153	152 189 114	240 833 149	228 321 133	214 311 117	319 577 131	216 297 155	256 873 139	219 225 210	190 218 157	458 405 499
Both sexes	6, 257 2, 369 3, 874	168 123 210	162 125 197	196 200 187	102 105 100	87 79 95	120 98 142	158 39 244	184 108 241	165 121 209	267 166 390	202 179 229	203 162 235

¹ Physicians (M. D.) not designated by family informants as specialists; includes home and office calls and calls on private patients in hospitals. Calls include those within the study year only, but the case may have had its onset prior to the study year or have been still sick at the end of the year. In computing total calls, cases with an unknown number of calls were put in at an average based on cases of the same diagnosis group with known numbers of calls by general physicians, exclusive of the few cases with 100 or more calls.

3 For International List numbers, see table 5. For further details about specific diseases included in each broad group, see figure 1 and table 2 of preceding paper (16).

3 *All ages" includes a few of unknown age; "both sexes" includes a few of unknown sex.

4 Rates adjusted by the direct method as described in note to table 5.

Table 10.—Home calls 1 by private general physicians in connection with illness from certain causes per 1,000 population of specific ages for each sex-8,758 canvassed white families in 18 States during 12 consecutive months, 1928-31 (Sole or primary diagnoses only)

	· · · · ·	2016 01	prim	ary u	ragno:	CS UII	3,						
	A	ll ages	3					Aį	ge §				
Sex and diagnosis ³ group	Number of home calls	Adjusted •	Crude	Under 5	2	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65 and over
		A	nnua	l hom	e calls	ı by	physi	cians	per 1,	000 pc	pulat	ion	
Minor respiratory diseases: Both sexes	10, 330	2K6 A	268 0	477 A	300 6	193 1	133 8	183 6	260 6	210 1	244 7	203 7	433 0
Male	4 619	220 1	244 1	477 2	309.6	207.7	1133.6	145.4	221. 1	174.2	164.8	189. 1	1183. 1
Female	5, 716	289.6	291. 2	480.6	291. 9	178. 2	133. 9	211.4	290. 0	246. 4	342.6	22,1. 2	629. 2
Other respiratory diseases:			100 4	147 2	150 2	60.4	97 9	58 B	69. 1	60.0	71.6	120 0	260 K
Both sexes	1, 841	92.0	97. 4	169. 9	166. 7	67.8	87. 8	52.6	34.6	62.8	41.7	171.6	164.8
Female	2,026	105. 9	103. 2	124. 1	152.0	71.0	86. 7	59.6	94.8	57.3	108. 2	77.7	335. 1
Minor digestive diseases:			40.0			20.6	18.7	14.6	19. 5	20 6	35. 8	41 4	
Both sexes Male	1,627	39.3	42. 2 35. 2	112 9	28 0	19 1	9. 2	11. 2		21.8	21.7	28.6	91.5
Female.	961		49.0			22. 1	28. 2	17. 1		55. 6	53. 1	56.8	
Other digestive diseases:		L				~ ~				4 0		101 7	
Both sexes	1,852	58.4	48. 0 39. 6	13. 2	22.7	20.3	40.0 40.8	59. 0 19. 0	63.7	23.5	74.0	151. 7 153 O	52.6
Female	1. 104	67.6	56. 2	14.5	16.6	36.6	43.3	88. 2			76. 4		
Female	'	l		ł	l			1					1
Both sexes	5,828	120. 4	151. 2	328. 1	322. 3	163. 5	78.4	53. 8	65. 4	67. 8 34. 6		22. 4 17. 4	
Male Female.	2,842	125. 1	150. 4 152. 1	319. 1	333. 7 289 8	152 2	51 9	81 6	87.7	101. 3	40.5		74. 9
Ear and mastoid diseases:	2,000	l	1			- 1		l	1				
Both sexes	597	12.4	15. 5	46.8	23. 4	13.8	6.6	12.7	5. 3	5. 9		3.4	
Male	309 288	11.9	16. 4 14. 7	56.6	20.2	20.4 7.1	11.1	2. 2 20. 4	. 8 8. 6	5.7	2. 7 13. 3	3.7	
Female Nervous diseases except cere-	200	12. 5	14. /	30. 9	20.0	7.1	2.0	20. 4	0.0	0. 1	10. 0	0.0	
bral hemorrhage, paralysis,													l
neuralgia, and neuritis:							10.4	10.0	22. 2	20. 2	33. 4	54 2	51. 1
Both sexes	734	12. 3	19.0	21.7	7.7 6.4			12. 3 4. 5			10.3		
Female	515		26. 2	9.7	9.0		12. 5	18.0		35. 6	61. 8		
Rheumatism and related dis-								-					
eases:	1 025	91 7	00 0		15.0	19.0	4.6	11. 3	22 7	49.7	54.6	80 O	70.9
Both sexes	1,033	28.6	26. 9 26. 0	. 7	13. 1	15.6	6.5			65. 1	39. 0	49. 8	50.3
Female			27. 7		16. 9	8.4	2.6	14.7	36. 4	32. 2	73. 7	94. 2	101. 6
Degenerative diseases:				10.4	8. 2	11. 2	23. 9	90.0	41.0	77 0	140 6	255 0	1504 9
Mola Sexes	1 350	100. 4	71 0	13. 4 15. 0	12. 4	7.8			22. 1	56.7	92. 1	264. 9	1384.4
Both sexes Male Female	2, 117	173. 3	107. 9	11. 9	4.1	14.6	44.6		55. 0				
skin diseases:							~ ^			10.0		~~ 0	05 1
Both sexes	587 324		15. 2 17. 1		11.0 11.0			3.8	11. 3 11. 7	10. 8	17. 9	31 1	116 7
Female			13. 4			4.0		3. 3	11. i	7. 5	23. 9	23. 9	25. 0
Female genital and puerperal	-33									1			
diagnoses: Both sexes	3, 894	110 0	101 0	. 7		. 7	45 9	205 5	337. 2	160 2	50 1	19 0	14.0
Female	3, 894					1.3	90.6	493. 9	587. 4	340. 2	131. 5	28. 4	25.0
Accidental injuries:						1							
Both sexes	2, 767		71.8	61. 1	79.6	53. 4		69. 4	60. 6 65. 4	75. 2	71. 9	68.6	292.6
MaleFemale	1, 528 1, 239		63 1	70. 2 45 9	108. 5 51. 5	73. 0 33. 5	30.2	40 O	57. 1	54. A	106.9	71. 7	132. 7 417. 1
All other diseases:		70. I				ŀ	1		1				
Roth seres	1, 971	50. 4	51. 1	99.8	45.7	18. 8	31.8	16. 5	45. 7	48. 2	63. 9	41.4	118. 2
MaleFemale	776	34. 2	41.1	111.1	31.4	17. 8	2U. 3	3.4 26 1	10. 4 72 0	24. 2 72. 5	41. 2 01 8	55. 6 50. 8	38. 9 180 0
r emaie	1, 102	U1. Z	00. 2		31. 4		40.0		12.0)				

¹ Includes calls to the home of the patient on all cases (disabling and nondisabling) by private physicians (M. D.) not designated by family informants as specialists. Calls include those within the study year only, but the case may have had its onset prior to the study year or have been still sick at the end of the year. In computing total home calls, cases with an unknown number of home calls were put in at an average based on cases of the same diagnosis group with known numbers of home calls, exclusive of the few extreme cases with 100 cr more calls. with 100 or more calls.

For International List numbers, see table 5. For further details about specific diseases included in each

² For International List numbers, see table 5. For further details about specific diseases included in each broad group, see figure 1 and table 2 of preceding paper (15).

⁸ "All ages" includes a few of unknown age; "both sexes" includes a few of unknown sex.

⁸ Rates adjusted by the direct method as described in note to table 5.

⁸ Rates plotted in figures 7 and 8 as 5-14: Skin, male 15.6, female 7.9. Rates plotted as 15-24: Other digestive, male 34.4, female 63.3; ear and mastoid, male 78. female 10.2; nervous, male 14.5, female 14.9, skin, male 12.8, female 13.8; accidents, male 83.0, female 34.6. Rates plotted as 35-54: Ear and mastoid; male 4.6, female 8.5; rheumatism, male 55.1, female 46.2; accidents, male 75.7, female 72.2. Rates plotted as 35-54: Ear and mastoid; male 4.6, female 8.5; rheumatism, male 55.1, female 46.2; accidents, male 75.7, female 72.2. Rates plotted as 35-54: Details of the respiratory, male 186.9, female 407.3; other respiratory, male 195.1; minor digestive, male 50.8, female 71.5; other digestive, male 117.6, female 158.5; communicable, male 11.3, female 49.6; ear and mastoid, male 2.4, female 1.6; skin, male 61.2, female 24.4.

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Table 11.—Calls by any practitioner per attended case 1 of certain diagnoses for persons of specific ages for each sex—8,758 canvassed white families in 18 States during 12 consecutive months, 1928–31

	T			mary (,,			-			
		ll age	8 *	<u> , </u>				Aş	ζθ 4				
Sex and diagnosis ³ group	Number of at-	Adjusted 4	Crude	Under 8	93	10-14	15-19	20-24	25-34	35-44	45-64	55-64	65 and o'rer
			(Calls 1	by an	y prac	tition	er per	atten	ded c	8.Se 1		
Minor respiratory diseases: Both sexes	7, 283 3, 406	2. 5 2. 5	2. 4 2. 4	2.1 2.0	2. 2 2. 3	2. 3 2. 3	2. 4 2. 7	2. 5 3. 1	2. 7 2. 9	2. 5 2. 5	2. 7 2. 3	3. 2 3. 7	3. 5 2. 2
FemaleOther respiratory diseases: Both sexes	3 875	2. 5 6. 1	2. 4 5. 8	2. 2 4. 9	2. 2 5. 3	2. 2	2. 2	2. 2	2. 6	2. 5	3. 1	2.8	4. 2
Female	1,046	6. 2 6. 0	5. 9 5. 8	5. 5 4. 3	4.8 5.8	4.3	5. 5 5. 7 5. 2	6. 0 7. 7 4. 9	6. 2 5. 6 6. 6	6. 5 6. 1 6. 8	9. 0 10. 9 7. 1	8. 7 9. 0 8. 2	
Minor digestive diseases: Both sexes Male Female	813	2. 5 2. 1 2. 9	2. 4 2. 0 2. 7	2. 1 2. 0 2. 1	1.6 1.4 1.7	1.4	1.7 1.3 1.8	2. 7 1. 5 3. 1	2. 3 2. 2 2. 3	3. 6 3. 0 4. 0	3. 0 2. 3 3. 7	2.8 1.5 4.0	3.0 3.3 2.8
Other digestive diseases: Both sexes Male Female	391	7. 2 7. 6 6. 9	6. 7 7. 0 6. 5	2.8 2.7 2.8	3. 7 3. 7 3. 7	5. 9 4. 9 6. 7	5. 7 6. 8 5. 2	7. 2 5. 5 8. 0	7.6 8.0 7.3	7. 4 8. 6 6. 8	7. 1 7. 7 6. 6	12.9 15.5 11.2	8. 0 10. 9 6. 6
Communicable diseases: Both sexes	2, 496 1, 224 1, 272	4. 0 4. 1 3. 9	3. 6 3. 7 3. 6	3. 0 3. 0 3. 1	2. 7 2. 9 2. 5	3. 8 3. 8 3. 8	4. 6 5. 5 3. 6	6. 8 6. 2 7. 1	6. 9 7. 0 6. 9	6. 9 6. 5 7. 1	7.3 7.2 7.5	6. 9 10. 2 3. 3	6. 9 8. 5 6. 4
Ear and mastoid diseases: Both sexes Male Female Nervous diseases except cerebral hemorrhage, paralysis,	676 337 339	4. 5 4. 7 4. 3	4. 4 4. 5 4. 3	3. 5 3. 5 3. 4	4. 4 3. 9 4. 7	3. 6 4. 1 2. 9	5. 3 5. 6 4. 9	4. 0 2. 6 4. 8	4. 6 3. 6 5. 2	8.3 11.8 5.6	4. 1 3. 7 4. 4	4. 7 5. 3 3. 6	4. 7 6. 0 3. 0
neuralgia, and neuritis: Both sexes Male Female	465 132 333	5. 4 5. 7 5. 4	5. 4 5. 3 5. 4	4.9 3.4 7.2	4.7 5.1 4.3	6. 8 3. 6 9. 7	4. 6 5. 4 4. 1	2.8 4.0 2.8	5. 3 7. 8 4. 9	4. 8 5. 7 4. 5	7. 7 7. 2 7. 9	5. 3 7. 7 4. 3	7. 1 4. 2 8. 5
Rheumatism and related diseases: Both sexes	699 307	5. 5 5. 7	5. 6 5. 8	3. 0 2. 0	5. 5 4. 9	7. 8 10. 9	3. 3 3. 7	10. 3 3. 5	4.8	5. 7 7. 2	5. 3 5. 1	6. 6 7. 0	4.0
Female Degenerative diseases: Both sexes	392	5. 3 8. 6	5. 4	4.0	6.6	4. 3 6. 3	3. 0 8. 6	12. 0 5. 9	5. 1	4. 5	5. 4 9. 3	6. 1	4. 7 10. 4
MaleFemaleSkin diseases:	435 726	8. 7 8. 5	8. 2 8. 0	4. 1 3. 9	3. 4 5. 3	6. 9 5. 8	7. 8 9. 0	4. 7 6. 3	5. 5 6. 0	8. 5 8. 6	10. 2 8. 8	8. 4 7. 2	9. 9 10. 8
Both sexes Male Female	555 591	4. 2 4. 5 3. 9	3.9 4.2 3.7	2. 7 2. 5 3. 0	2. 6 2. 8 2. 4	3. 7 4. 0 3. 4	4. 3 4. 8 3. 7	5. 1 4. 4 5. 5	4. 3 4. 5 4. 1	5. 3 6. 4 4. 2	4. 9 5. 5 4. 3	6. 2 5. 2 7. 1	5. 5 7. 9 4. 4
Female genital and puerperal diagnoses: Female	l, 4 91	7. 6	7.7	4.6	3. 5	4. 7	5. 3	7. 2	8.0	7. 7	8, 1		17. 5
Accidental injuries: Both sexes Male Female	2, 595 1, 602	4. 6 4. 8 4. 3	4.3 4.4 4.0	2. 8 2. 9 2. 6	3. 8 4. 0 3. 3	3. 7 3. 8 3. 5	4. 2 4. 1 4. 6	6. 7 8. 0 4. 5	4. 2 4. 5 3. 7	5. 3 5. 6 4. 9	4. 3 4. 1 4. 6	4. 5 5. 1 3. 8	8. 2 8. 1 8. 3
All other diseases: Both sexes	, 849 , 139	4.7 4.3 4.9	4. 5 4. 2 4. 7	3. 4 3. 0 3. 7	3. 5 4. 3 2. 8	4. 4 4. 1 4. 7	4. 2 3. 9 4. 5	4. 5 3. 0 4. 9	4. 5 4. 1 4. 7	4.9 5.1 4.8	6. 2 6. 3 6. 2	4. 4 3. 3 5. 0	6. 7 5. 3 7. 5

PROVISIONAL MORTALITY RATES FOR THE FIRST HALF OF 1940

The mortality rates in this report are based upon preliminary data from 31 States, the District of Columbia, Hawaii, and Alaska for the first 6 months of 1940. Comparative data for the first 6 months of 1938 and 1939 are presented for 30 States and the District of Columbia. This report is made possible through a cooperative arrangement with the respective States which voluntarily furnish provisional monthly tabulations of current birth and death statistics to the United States Public Health Service which analyzes and publishes the data. Because of lack of uniformity in the method of classifying deaths according to cause as well as some delay in filing certificates, these data are

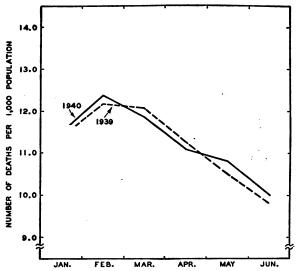


FIGURE 1.—Death rates per 1,000 population, by months, 1939 and 1940.

preliminary and may differ in some instances from the final figures subsequently published by the Bureau of the Census.

In the past, however, these preliminary reports have accurately reflected the trend in mortality rates for the country as a whole. Some deviation from the final figures, especially those for specific causes of death, for individual States may be expected because of the provisional nature of the information. Nevertheless, it is believed that the trend in mortality within each State is correctly represented. Comparisons of specific causes of death for different States are subject to error because of variations in tabulation procedure and promptness of filing the original certificates. Such comparisons should be based upon the final figures published by the Bureau of the Census.

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The mortality rate from all causes per 1,000 population for the first half of 1940 was slightly higher than the corresponding rate for the two previous years, 11.3 compared with 11.2 and 11.0. During the current year the death rate has been higher than last year for 4 of the first 6 months (fig. 1). The slight rise results from increases in the chronic diseases of late adult life, since none of the acute diseases for which data are shown in the following tables has a rate higher than that reported during the 2 previous years.

In addition to increases in the mortality rates of chronic diseases, cancer, diabetes, cerebral hemorrhage, heart disorders and nephritis, there was a 4-percent increase in the death rate from accidents. The decrease in the relative number of fatal automobile accidents has apparently been replaced by an increase; the rate for the first half of 1940 was 7.8 percent above that in 1939. The increase was fairly widespread; 23 of the 32 reporting areas experienced a higher rate in 1940 than in the previous year.

The current period has been unusually free from outbreaks of the principal communicable diseases of childhood and adolescence, diphtheria, measles, scarlet fever, and whooping cough. The death rate from these diseases is one-third less than the corresponding rate in 1939 and nearly two-thirds less than the rate in 1938. The mortality rate from tuberculosis also maintained its downward trend and has been below 50 per 100,000 population for the entire 6 months.

Especially gratifying is the continued decline in the infant and maternal mortality rates. The number of infant deaths per 1,000 live births for the current period, 49, was nearly 6 percent lower than the rate for 1939, while the maternal mortality rate, 4.1 per 1,000 live births, was slightly over 2 percent less than last year.

The birth rate increased from 16.4 per 1,000 population in 1939 to 16.8 in 1940. The crude rate of natural increase, 5.5 per 1,000 population, was also slightly greater than for the first 6 months of 1939.

Provisional mortality from certain causes in the first 6 months of 1940, with comparative provisional data for the corresponding period in

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See footnotes at end of table

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Includes all States with data for the 6-month period of 1940, 1939, and 1938. The District of Columbia is included as a State. Estimated population July 1, 1940, 78,322,500.

These data are taken from the July 1938, 1939, and 1940 Statistical Bulletins published by the Metropolitan Life Insurance Co. All figures are provisional and are subject to correction, since they are based on provisional estimates of lives exposed to risk. Data do not include all diseases reported to the Public Heelth Service.

**Excludes pericarditis, aute endocarditis, age not specified.

**Excludes collisions between automobiles and trains or street cars.

**To deaths reported.

**To deaths reported.

**Dest than 0.1 per 100,000 population.

**Data not available.

SINUS INFECTION (SINUSITIS)1

Definition.

Sinusitis is a disease of the lining and bony walls of the air-containing spaces of the bones in the face. All of these cavities communicate with the nasal passages by small openings. The intimate relation of sinusitis to disorders of the nose can readily be seen when one considers that infections in the nose may travel into the sinuses through these openings, or that any inflammation of the nose may close the mouths of the sinuses, thus interfering with proper drainage and favoring disease. Prolonged closure of the mouth of a sinus is followed by absorption of the air in the cavity with the formation of a vacuum and results in pain in the region of the involved sinus. When the lining of a sinus becomes inflamed, a profuse secretion forms which, when drainage is interfered with, may cause intense pain from actual pressure on the sinus wall.

The sinuses more commonly affected are the (1) ethmoids which lie between and behind the eyes, (2) the maxillary situated below the eye in the cheek bones, and (3) the frontals which are located above the eyes.

Sinusitis is a common disease and causes much ill health, suffering, and lowered vitality.

Cause.

Sinusitis is most frequently due to an extension of infection from the lining of the nose which results from either the common head cold or influenza. Injuries to the facial bones, bathing, and diving have been recorded as factors. In the case of the maxillary sinus, dental disease and tooth extraction may be responsible as the roots of the upper back teeth are frequently in contact with or protrude through the floor of the sinus. Allergy and dietary deficiencies are important predisposing factors.

Symptoms.

A head cold that lingers on or repeated attacks of head colds may be the only warning that sinus disease is present. The usual symptoms are nasal obstruction and a discharge of mucopus or pus depending upon the severity of infection. The discharge may be slight, and evident only as post-nasal dripping, or it may be very profuse. Dull headache or pain is present over the affected sinus. In the acute stage, when the natural drainage of the sinus is interfered with, headache is more severe.

Diagnosis.

A physician competent in the treatment of diseases of the nose should be consulted to make the proper diagnosis. The X-ray is of considerable assistance.

¹ This material is available in leaflet form and a limited number of copies may be obtained by addressing the Surgeon General, U. S. Public Health Service, Washington, D. C.

2029 November 1, 1940

Treatment.

Medical treatment is directed toward the relief of pain, the lessening of discharge, and an attempt to diminish absorption from a sinus acting as a focus of infection. When medical treatment fails to give relief, surgery is directed to establish drainage.

Prevention.

The most important means of preventing sinus infection is to observe the modern rules of personal hygiene and so to maintain good general health and body resistance to disease. This includes following a diet which supplies the necessary variety of foods, obtaining sufficient amount of rest, both mental and physical, to avoid exhaustion of strength, protection to the body when out-of-doors, and a regard for the temperature and ventilation of the home. Fresh warm air of a proper degree of moisture, free from appreciable draft, is now recognized as essential to indoor workers.

Since the common cold is often the forerunner of sinus disease close contact with a person afflicted with a cold should be avoided. When one has a cold the mouth and nose should be covered on unavoidable coughing or sneezing. Secretions from the nose and throat should be carefully disposed of so that no other person may be exposed.

Effect of Climate.

Your physician will be able to advise whether or not a change of climate is indicated. Certainly a change of climate should not be considered until regulation of personal hygiene and medical and surgical treatment have been given a thorough trial.

DO NOT INDULGE IN SELF-DIAGNOSIS OR SELF-TREATMENT. CONSULT YOUR DOCTOR

COURT DECISION ON PUBLIC HEALTH

Statute regulating tourist camps in a particular county held unconstitutional.—(South Carolina Supreme Court; Sansing v. Cherokee County Tourist Camp Board et al., Spencer v. Same, 10 S.E.2d 157; decided July 18, 1940.) The Cherokee County tourist camp board was created by a 1939 act of the general assembly of South Carolina. This act was a local or special act which related solely to the county of Cherokee and which contained provisions, among others, pertaining to the health of employees and sanitary facilities at tourist camps. In actions in which the plaintiffs sought to have the said board permanently enjoined from enforcing the provisions of the act, the act was assailed on the ground that it was in contravention of the State constitutional provision prohibiting the enactment of a special law where a general law could be made applicable. The view taken by

the supreme court was that the act did run counter to such constitutional prohibition and that the plaintiffs were entitled to a permanent injunction against the enforcement of the law. The court said that it had been demonstrated that a general law could be made applicable, citing a law which vested the State board of health with power to adopt and file regulations with reference to health and sanitary conditions in all tourist camps in the State and giving a reference to the regulations.

DEATHS DURING WEEK ENDED OCTOBER 19, 1940

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

	Week ended Oct. 19, 1940	Corresponding week,
Data from 88 large cities of the United States: Total deaths Average for 3 prior years. Total deaths, first 42 weeks of year Deaths under 1 year of age. Average for 3 prior years. Deaths under 1 year of age, first 42 weeks of year Data from industrial insurance companies: Policies in force Number of death claims Death claims per 1,000 policies in force, annual rate. Death claims per 1,000 policies, first 42 weeks of year, annual rate.	7, 632 8, 026 352, 863 498 477 21, 064 64, 784, 337 10, 765 8, 7 9, 7	7, 846 346, 894 448 21, 002 66, 567, 106 11, 720 9, 2 10, 0

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED OCTOBER 26, 1940

Summary

As compared with the preceding week, slight increases were recorded during the current week for each of the 9 communicable diseases included in the weekly table, with the exception of poliomyelitis. The incidence of 4 of these diseases—influenza, measles, poliomyelitis, and whooping cough—was above the 5-year (1935–39) median expectancy, while the cumulative totals to date of only 2—influenza and poliomyelitis—were above the 5-year cumulative medians.

The number of cases of poliomyelitis declined from 514 for the preceding week to 434 for the current week, as compared with a 5-year median of 197 cases. Most of the States reported a decrease. Wisconsin reported the highest number of cases, 52, as compared with 29 for the preceding week.

For most of the weeks during the current year, the incidence of influenza has been above the 5-year median expectancy. Up to and including the current week (43 weeks), 174,921 cases have been reported, as compared with a 5-year cumulative median of 145,393 cases. The number of cases reported in 1940 to date was exceeded in only 1 year during the preceding 5 years, 1937, when 279,394 cases had been reported for the corresponding period. Texas, with 217 cases, South Carolina, with 198, and Arizona, with 112, reported the highest incidence for the current week.

Current reports show 11 cases of undulant fever, 4 cases of tularaemia, and 74 cases of endemic typhus fever, of which 38 were in Georgia, 10 in Alabama, 7 in Texas, and 5 each in Florida and Mississippi.

The Bureau of the Census reports 8,074 deaths in 88 major cities of the United States for the current week, as compared with 7,632 for the preceding week, and with a 3-year average of 8,024 for the corresponding week.

November 1, 1940 2032

Telegraphic morbidity reports from State health officers for the week ended October 26, 1940, and comparison with corresponding week of 1939 and 5-year median

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

	D	iphthe	ria]	Influenz	8		Measle	5		ingitis gococc	
Division and State	W end	eek ed—	Me-	Week	ended—	Me-	Week	ended—	Me-		eek	Me-
	Oct. 26, 1940	Oct. 28, 1939	dian, 1935– 39	Oct. 26, 1940	Oct. 28, 1939	dian, 1935– 39	Oct. 26, 1940	Oct. 28, 1939	dian, 1935– 39	Oct. 26, 1940	Oct. 28, 1939	dian, 1935- 39
NEW ENG.												
Maine New Hampshire Vermont Massachusetts Rhode Island Connecticut	1 0 0 5 0 1	2 0 7 1 0	2 0 0 7 0 2	1	1	1	71 0 6 159 0 3	20 73 20 8	1 14 53 4	000000000000000000000000000000000000000	0	0 0 2
MID. ATL. New York New Jersey Pennsylvania	16 8 6	18 9 34	29 10 25	1 3 1	1 8 3	1 7 5	157 74 369	89 7 38	89 23 46	0 0 2	1 1 4	6 1 4
E. NO. CEN. Ohio	9 8 12 6 1	34 31 32 3 0	64 31 35 20 3	15 9 5 25	18 3 11 5 15	9 10 8 2 26	11 16 135 168 131	17 14 13 67 14	24 6 17 24 33	0 3 2 1 0	1 0 3 2 1	3 3 3 2 1
W. NO. CEN. Minnesota	1 9 13 4 1 5 6	3 11 14 0 5 1	6 11 21 3 2 2 2	2 4 1	3 1 4	2 1 35 4 3	0 55 7 0 2 8 6	12 5 4 7 28 2 43	12 5 9 3 3 2 3	1 0 0 1 0 0	1 1 0 1 0 0	1 1 0 0 0 0
So. ATL. Delaware. Maryland 2. Dist. of Col. Virginia West Virginia 2. North Carolina 3. South Carolina 4. Georgia 4. Florida 4.	0 5 0 27 4 85 27 28 5	0 11 1 92 28 183 31 61 8	0 11 7 77 39 142 29 57	56 2 3 198 19	9 47 5 221 32 2	6 1 11 5 221	1 2 2 29 1 6 2 3	1 5 2 6 2 68 • 1 2	1 6 1 9 2 51 6	0 1 0 0 2 0 2 0	0 0 0 1 0 2 1 1	0 1 1 3 2 2 1 0
E. SO. CEN. Kentucky Tennessee Alabama 4 Mississippi 2 4	20 16 31 11	22 29 44 17	41 58 44 17	19 24	1 5 53	9 22 36	51 16 3	3 2 2 2	35 2 2 2	2 2 1 1	2 1 1 1	2 3 2 0
W. SO. CEN. Arkansas Louisiana 4 Oklahoma Texas 4 MOUNTAIN	12 20 24 47	24 21 12 18	24 25 25 39	35 4 18 217	24 25 70 194	19 12 33 153	0 1 6 17	4 1 2 7	4 1 2 7	0 0 0 0	1 1 0 1	0 1 1 1
Montana	2 0 1 7 0 5	1 0 3 9 1 5	1 0 1 10 3 8	16 5 6 112 12	2 6 1 58 2	10 2 2 2 29 1	7 0 4 16 25 14	51 9 35 18 1 2 7	34 9 2 6 19 2 8	0 0 1 1 0 0	0 0 0 0 0 1	0 0 0 0 0
PACIFIC Washington Oregon 3 California	7 1 23	2 1 8	2 3 28	7 28	8 13	21 17	5 9 73	229 17 55	11 14 55	0 1 2	0 1 3	1 1 2
Total	521 2 218 1	'=	1, 018	856	861	756	1,674 37,570 3	1,020	1, 317	27	35	60

Telegraphic morbidity reports from State health officers for the week ended October 26, 1940, and comparison with corresponding week of 1939 and 5-year median—Con.

2040, dies compared to the corresponding sector of 2000 and 0 goal meeting Cont.												
	Po	liomye	litis	Sc	earlet fe	ver	£	Smallpo	x	Typh typ	oid and hoid fe	l para- ver
Division and State		eek ed—	Me-	We end	ek ed—	Me-		eek ed—	Me-	We ende	eek ed—	Me-
	Oct. 26, 1940	Oct. 28, 1939	dian, 1935- 39	Oct. 26, 1940	Oct. 28, 1939	dian, 1935– 39	Oct. 26, 1940	Oct. 28, 1939	dian, 1935– 39	Oct. 26, 1940	Oct. 28, 1939	dian, 1935– 39
NEW ENG. Maine	0 0 0 0 0 2	0 0 3 5 0	0 0 0 4 0 2		3 11 32	10 3 5 92 10 34	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	1 0 1 3 1 5	1 0 0 1 0 3	Ō
MID. ATL. New York New Jersey Pennsylvania E. NO. CEN.	12 3 5	42 5 16	14 4 4	163 66 111	130 59 187	188 59 192	0 0 0	0 0 0	0	4 1 7.	18 5 15	14 4 20
Ohio	33 14 38 45 52	8 7 8 25 3	7 4 12 14 1	156 47 178 119 104	169 101 209 178 98	251 110 213 178 137	0 1 13 0 6	0 1 1 0 0	0 3 2 0 0	5 1 18 2 0	6 3 15 19 1	13 3 18 9 1
Minnesota Iowa Missouri North Dakota South Dakota Nebraska Kansas	13 48 10 2 4 7 20	13 17 1 1 4 1	1 3 1 1 2 1 1	57 58 44 4 23 22 59	77 68 64 31 14 24 67	78 68 67 28 33 24 88	0 1 0 0 0 1	1 6 0 0 0 0	2 4 0 0 0 1	1 2 8 2 1 0 1	1 2 12 1 1 0 3	1 3 16 1 1 0 3
SO. ATL. Delaware Maryland Dist. of Col. Virginia West Virginia North Carolina South Carolina Florida Florida Florida	0 1 0 12 31 1 0 1	0 2 0 2 1 1 1 1 2	0 1 1 2 1 2 1 1 1 1	3 20 8 49 34 128 39 33 4	7 35 11 67 96 123 27 38 3	5 37 13 65 90 92 14 33 5	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	3 6 0 10 5 3 11 21 3	3 10 1 6 3 3 13 15 1	3 10 2 14 10 9 8 13
Kentucky Tennessee Alabama 4 Mississippl 24	13 4 4 3	6 0 1 0	5 1 1 2	56 81 40 21	73 71 51 16	77 66 27 16	0 1 0 0	0 0 0	0 0 0	23 7 11 2	5 5 13 5	12 13 11 6
W. SO. CEN. Arkansas Louisiana 4 Oklahoma Texas 4	3 3 0 2	2 1 0 3	2 1 0 3	7 10 23 38	16 12 20 48	16 14 21 56	0 0 2 1	0 0 3 1	0 0 0 1	7 7 15 12	13 9 5 14	6 12 13 32
MOUNTAIN Montana Idaho Wyoming Colorado New Mexico Arizona Utah 2 Nevada	4 4 9 2 0 0 7	0 3 0 9 7 1 7	0 0 0 1 0 0 1	11 13 11 26 4 3 8	31 3 5 23 7 0 10	31 18 9 26 14 3 12	0 1 0 0 0 0 0	0 1 0 7 0 0 0 0	10 2 0 3 0 0 0	0 0 1 5 2 0 1	6 1 0 6 8 1	3 3 0 3 11 2 0
Washington	13 0 7 434	1 2 35 247	3 2 14	27 13 97	41 17 106 2, 511	34 25 153	0 1 0	2 1 1	2 1 1	6 7 7	3 3 9	3 3 10
43 weeks	8, 383	6, 245	6, 245	2, 129 131, 380	2, 511 131, 066	2, 882 183, 639	28 2, 089	8, 910	8, 662	8, 399	268 11, 271	331 12, 670

Telegraphic morbidity reports from State health officers for the week ended October 26, 1940, and comparison with corresponding week of 1939 and 5-year median—Con.

	Whoopi	ng cough		Whoopi	ng cough
Division and State	Week	ended—	Division and State	Week	ended—
	Oct. 26, 1940	Oct. 28, 1939		Oct. 26, 1940	Oct. 28, 1939
NEW ENG.			80. ATL.—continued		
Maine	9	19	II		
New Hampshire	13	.0	Georgia 4	11	4
Vermont	14	24	Florida 4	6	0
Massachusetts		96			
Rhode Island	_4	30	E. SO. CEN.		
Connecticut	81	54	II		
			Kentucky	88	58
MID. ATL.			Tennessee	35	36
			Alabama 4 Mississippi 3 4	28	49
New York	405	272	Mississippi 3 4		
New Jersey	131	114	il i		
Pennsylvania	556	245	W. SO. CEN.	Į	
E. NO. CEN.	i		Arkansas	14	5
Ohio	254	169	Louisiana 4	7	34
indiana	19	31	Oklahoma	12	
llinois	192	171	Texas 4	96	0 14
Michigan 3	322	iii	Texas	80	14
Wisconsin	168	158	MOUNTAIN		
W ISCOUSIU	100	100	MOUNTAIN	- 1	
W. NO. CEN.	ŀ		Montana	o	5 2 8 13 8
Minnesota	52		Idaho	8	2
	6	64 18	Wyoming	27	.8
lowa	57	24	Colorado	19	13
North Dakota	27	4	New Mexico	11	10
South Dakota	2/	ā	Utah 2	27	39
Nebraska	á	i	Marada	26	29
Kansas	54		Nevada	oj.	
xausas	04	2	PACIFIC	1	
SO. ATL.	ı		1	ł	
	1		Washington	56	12
Delaware	24	4	Oregon 3	10	27
Maryland 3	81	56	California.	263	134
Maryland 3 Dist. of Col	7	12	l -		
/iroinia	35	24	Total	3, 492	2, 237
West Virginia ²	25	8			
Jorth Carolina 14	61	61	43 weeks	134, 993	150, 098
innah Cinnalina 4	21	7	i		•

New York City only.
 Period ended earlier than Saturday.
 Rocky Mountain spotted fever, week ended October 26, 1940, 2 cases as follows: North Carolina, 1; Oregon, 1.
 Typhus fever, week ended October 26, 1940, 74 cases as follows: North Carolina, 1; South Carolina, 4; Georgia, 38; Florida, 5; Alabama, 10; Mississippi, 5; Louisiana, 4; Taxas, 7.

WEEKLY REPORTS FROM CITIES

City reports for week ended October 12, 1940

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table.

State and cit y	Diph- theria	' 1	luenza	Mea- sles	Pneu- monia	Scar- let- fever	Small- pox-	Tuber- culosis	foror	Whoop- ing cough	all
	cases	Cases	Deaths	cases	deaths	cases	cases	deaths	cases	cases	causes
Data for 90 cities: 5-year average Current week 1_	162 50	69 50	23 11	224 320	401 299	594 439	3 0	329 271	54 31	881 1,052	
Maine:	<u> </u>	_									
Portland New Hampshire:	0		0	0	1	0	0	0	0	2	18
Concord Nashua Vermont:	0		0	0	0	1	0	0	0	0	3
Barre Burlington	0		ō	ō	ō	<u>i</u> -	0	0	0	i	9
Rutland Massachusetts:	0		0	0	0	0	0	0	0	0	Į.
Boston Fall River	0		0	13 0	11 0	6	0	10 2	0	47 10	180 28
Springfield	0		0	0	0	3	0	2	0	4	28 31
Worcester Rhode Island:	1		0	32	1	0	0	0	0	1	38
Pawtucket Providence	0		0	0	0	0	0	0 2	0	o.	18
Connecticut:	-				0		-		-	1	50
Bridgeport Hartford	0		0	0	2 1	1	0	0	0	5 1	41
New Haven	ŏ	1	ŏ	ŏ	î	Ô	ŏ	ō	ŏ	26	33 26
New York:				2		_					
Buffalo New York	0 10	7	0	1 66	9 52	9 48	0	2 57	0	11 119	100 1, 371
Rochester	0		0	3	52 3	1	0	1	0	8	64
Syracuse	0		0	0	Ō	0	0	0	0	1	43
New Jersey: Camden	0		0	4	0	1	0	1	0	0	25
Newark Trenton	0		0	17	1 1	12 3	0	12 1	0	22 1	80 46
Pennsylvania:			i	1		- 1	1		1		
Philadelphia Pittsburgh	3	2	1 1	58 0	8	23 10	0	17	3 0	1 0 9 24	394 148
Reading	0		ó	0	ĭ	10	0	2	ŏl	35	34
Scranton	0			0		0	0		0	0	
Ohio:	i		1	- 1	1	- 1	1	- 1	- 1		
Cincinnati Cleveland	1 0	7	0	1 0	5 9	6 8	0	4 2	1 1	6 73	126 193
Columbus	0	1	1	0	1	2	ŏ	2 8	0	24	72
Toledo	0	1	0	2	1	1	0	8	0	9	67
Anderson	0		0	0	1	0	0	0	0	0	15
Fort Wayne Indianapolis	0 2		0	0	2	1 2	8	0	0	1 8	24 99
Muncie	ő		1 0	3 0 0	8 2 4	î	ő	6	0	٥١	.9
South Bend Terre Haute	0		0	0	4 2	0	0	0	0 2	0	18
Illinois:			0		- 1	١	0	- 1	- 1	1	29
Alton	0	2	0	0 37	0 25	68	o l	.0	0	.0	9
Chicago Elgin	81		1 0	6	0	8	0	40	1 0	78 5	672 8
Moline	Q		0	0	1	1	0	0	0	0	10
Springfield Michigan:	0		0	0	2	1	0	0	0	2	31
Detroit	1	2	0	35	9	51	0	8	0	125	257
Flint Grand Rapids.	0		8	0	1	1 5	0	0	0 1	11 31	23 34
Wisconsin:			1	ĺ			- 1	1	- 1	- 1	
Kenosha Madison	0		0	1 2	0	0	0	0	0	0 3	8 10
Milwaukee	1		0	12	5	23	0	0	0	15	102
Racine Superior	0		0	0	0	3 5	0	0	0	8	10 12
4	۱,		٠.	۱,	١,	"	١	١	١	٦,	
Minnesota: Duluth	0		0	1	o	o	0	1	o	اه	21
Minneapolis	Ó.		0	1	1	21	0	1	1	13	87
St. Paul	0 J.	1	0	0	9 1	9 1	0 1	0	0 1	11	7 3

¹ Figures for Barre and Boise estimated; reports not received.

City reports for week ended October 12, 1940—Continued

State and city	Diph	•1	luen za	Mea- sles	Pneu- monia	Scar- let	Small-		Ty- phoid	Whoop-	Deaths,
State and city	theris cases		Deaths	cases	deaths	fever cases	pox- cases	culosis deaths	fever cases	cough cases	all causes
Iowa:											
Cedar Rapids	0	1	l	0	l	5	0	l	0	1 0	l
Davenmert	1			0		. 8	Ŏ		Ŏ	Ó	
Des Moines	0		0	0	0	8	0	0	Ō	0	27
Sioux City	0			0		0	0		0	8	
Waterloo Missouri:	0			U		8	0		. 0	1	
Kansas City	l o	1	l ol	0	4	2	0	8	1	14	75
St. Joseph	Ιŏ		l ŏl	Ŏ	1 1	Ō	ŏ	l ŏ l	Ô	Õ	75 26 173
8t. Louis	1		0	1	7	7	0	1 1	0	8	173
North Dakota:	١.	1	ا ا		ا ما	_	١.	ا ا	_		
Fargo Grand Forks	0		0	0	0	8	0	0	0	1 0	7
Minot	8			ŏ		ŏ	0		0	ŏ	
South Dakota:	ľ			·		·	١ ،		٧	v	
Aberdeen	0	l	l	0		0	l 0		0	0	l
Sioux Falls	0		0	0	0	7	0	0	Ŏ	0	8
Nebraska:		1	1	_	1 .1	_					
Omaha	0		0	1	1 1	1	0	0	1	0	53
Kansas: Lawrence		1	0	0	ا ه	0	0	0	0	0	4
Topeka	ŏ		וייו	ŏ	ľ	5	l ŏ	ا ۱	ŏ	ŏ	3
Wichita	ŏ		0	ŏ	i	ĭ	ŏ	0	ŏl	š	24
	Ĭ	1	ا ۱	•		-	Ĭ		١		
Delaware:	_		l		1 . 1						
Wilmington	0		0	1	3	0	0	0	0	5	26
Maryland: Baltimore	0				8			,,	اما	38	104
Cumberland	ŏ	1	0	4	l îl	13	0	13 0	2 0	38	194 9
Frederick	ŏ		8	ŏ	l il	ŏ	ŏ	ŏ	ŏ	ô	. 8
Dist. of Col:	•		١	•	. ^	۰		۰	١	١	, 0
Washington	2		0	2	7	5	0	11	1	4	136
Virginia:									- 1		
Lynchburg	0		0	0	0	0	0	0	0	4	9
Norfolk Richmond	1 0		0	1	2	0	0	1	0	0	27
Rosnoke	ĭ		1 0	0 5	il	4	0	2	0	0	43 11
West Virginia:	-		١٧	°	- 1	3		- 1	١	٧I	11
Charleston	0	ll	0	0	2	1	0	0	0	2	18
Huntington	Ó			0		0	0		ŏ	0	
Wheeling	. 0		0	0	2	0	0	0	0	. 0	11
North Carllina:	_			!	- 1				_ 1		
Gastonia Raleigh	8 1		ō	0		8	0	ō-	0	0	
Wilmington	i		ő	ő	2	ĭ	ő	8	0	ŏl	5 14
Winston-Salem.	i	1	ŏl	ŏ	õ	8	ŏ	ĭ	ō	11	iī
South Carolina:			٠,	۱	1	١,	١	- 1	٠ı		•••
Charleston	0	2	0	0	1	0	0	0	0	0	14
Florence	0		0	0	1	0	0	0	0	0	10
Greenville Georgia:	0		0	1	0	0	0	0	0	0	6
Atlanta	1	8	a	1	6	9	0	8	0	1	
Brunswick	ō	°	ŏ	á	i	ŏ	ŏ	ől	ŏ	اة	88 2
Savannah	ŏ	3	ŏ	ĭ	i	ŏ	ŏ	ĭ	ŏ	ŏl	32
Florida:			1	- 1	1	Ĭ	٠,	- 1	١	1	-
Miami	0		0	0	0	1	0	1	0	1	33
Tampa	1		0	0	2	0	0	0	0	0	26
Kentucky:			1	- 1	i	- 1	ŀ	1	- 1		
Ashland	0		0	0	1	0	0	0	اہ	0	11
Covington	ŏ		ŏ	ĭ	2	6	ŏl	ĭ	0	ŏ	11 15
Lexington	0		ŏ	3	ő	ŏ	ŏ	ó	ŏ	ĭ	14
_ Louisville	Ŏ		ŏ	ĭ	2	8	ŏ	2	ĭ	7	79
Tennessee:	_ !			- 1		- 1	- 1	1	- 1	- 1	
Knoxville	1		0	0	0	2	0	0	1	0	24
Memphis Nashville	0		0	1	2	6	o l	2	1	4	82
Alabama:	٧		0	0	1	3	0	2	1	7	48
Birmingham	2	2	ol	2	2	3	0	1	2	1	69
Mobile	1	ĩ l	ŏ	ő	íl	ő	ŏ	il	ő	öl	23
Montgomery	Õ			ŏĮ.		ĭ	ŏl.	1	ŏl	2 .	
4-1	l	- 1		. 1		- 1	- [- 1	- -	
Arkansas: Fort Smith	0	- 1		اہ	ı	!		- 1	!	!	
Little Rock	ö	-		9 -	2	Ņ	0 -		0	1 -	
MINNE MUCE	U i		0 1	1	2 1	0	0	1	0 1	2 i_	

City reports for week ended October 12, 1940—Continued

State and city	Diph- theria	Inf	luenza	Mea- sles	Pneu-	Scar- let-		Tuber- culosis	Ty- phoid	Whoop-	Deaths,
State and city	cases	Cases	Deaths	cases	monia deaths	fever cases	pox- cases	deaths	fever cases	cases	all causes
Louisiana:											
Lake Charles New Orleans	0		0 1	0	.0	0	0	0	0	0	1 4
Shreveport	2		اة	ő	13 3	2 2	0	6	0	1 0	128 27
Oklahoma:	_		1 1	•	ا	_	1	1		"	"
Oklahoma City.	0		0	0	1	5	0	4	0	0	36
Tulsa Texas:	1		0	0	0	2	0	0	1	2	13
Dallas	2		0	1	1	6	0	2	: 0	2	55
Fort Worth	1.		Ó	ā	3	, ,	Ó	i	, 5	l î	40
Galveston	0		0	0	1	0	0	1	0	Ō	17
Houston	0		1 0	0	6	2	0	8	2	0	85 49
ban Antonio	•		١	U	6	U	٠ ا	l °	U	2	49
Montana:			ŀ				l	l i			i
Billings	0		0	0	0	0	0	0	0	0	7
Helena	0		0	0	2	0	0	0	0	0	11
Missoula.	ő		ŏ	ŏ	0	1	0	8	0	0	4 5
Idaho:	ı ı		١,	•	۱	-	١	١	۰	U	
Boise											
Colorado: Denver	2		ا م					_			
Pueblo	ő		0	2	7	1	0	1 0	0	9	88
New Mexico:	١		- 1	٠	- 1	- 1	٧	١	١	v	5
Albuquerque	0		0	0	3	0	0	1	0	0	8
Utah:		ı	ا ا						!	-	_
Salt Lake City.	0		0	0	0	1	0	0	0	2	29
Washington:		- 1	1	- 1	- 1			- 1	ı		
Seattle	0		0	1	3	2	0	3	0	3	112
Spokane	0		0	0	1	5	0	0	0	0	41
Tacoma	0		0	0	0	0	0	0	0	. 0	31
Portland	4	- 1	0	1	5	0	0	2	1	2	82
Salem	ō			ôΙ		ŏl	ŏ		ô	ő	02
California:		_				- 1	- 1		1		
Los Angeles	4	8	1	3	3	13	0	14	0	66	334
San Francisco	0		8	1 4	4	2 3	0	1 4	0	32	29
Can Francisco.	- 1		٠,		7	9	٧	4	U	32	154

City reports for week ended October 12, 1940—Continued

State and city	Meni mening	ngitis, sococcus	Polio- mye- litis	State and city		ngitis, cococcus	Polio- mye- litis
	Cases	Deaths	CASES		Cases	Deaths	cases
Massachusetts:				Missouri:			
Boston	0	1	0	Kansas City	0	1 0	•
Springfield	lŏ	l õl	ĭ	St. Joseph	ŏ	l ŏ l	1
Dhada Island.		1 1	_	North Dakota:	Ĭ	l 'I	
Providence	0	l of	1	North Dakota: Minot	0	l ol	1
New York		1 1		Kanear		1 `I	-
New York	3	1	4	Topeka	0	l ol	4
New Jersey:	Ŭ .		_	Virginia:			
Newark	0	l ol	1	Lynchburg Richmond	0	lol	1
Pennsylvania:	1	1 1		Richmond	Ŏ	l ól	Ī
Philadelphia	0	0	7	Rosnoke	Ō	0	1
Pittsburgh	Ó	0	1	West Virginia: Charleston		1	
Ohio:	i i	1 1		Charleston	0	0	1
Cincinnati	0	0	5			i .	
Cleveland	0	0	3	Louisville	0	1	0
Columbus	0	01	4	Alabama:		1	
Toledo	0	0	1	Birmingham	1	0	1
Indiana:		l i		Louisiana:			
Fort Wayne	0	0	1	New Orleans	0	0	1
Indianapolis	0	0	3	Texas:			
Muncie	0	0	2	Dallas	0	0]	1
Illinois:				Fort Worth		0	1
Chicago	0	0	11	Houston	1	0	0
Michigan:	1	1		Montana:	1		
Grand Rapids	0	0	2	Montana: Missoula	0	0	2
Wisconsin: Madison	- 1			Utah:	- 1	i	
Madison	0	0	3	Salt Lake City	0	0	1
Mi'waukee	0	0	2	Washington: Seattle			
Minnesota: Duluth	- 1			Seattle	0	0	2
Duluth	0	0	5	Spokane	0	0	1
Minneapolis	0	0	3	California:	_	_	
St. Paul	0	0	1	Los Angeles	0	0	2
Iowa:	_	_ 1	_	Sacramento	0	0	3
Davenport	0	0	1	San Francisco	0	0	1
Des Moines	0	0	3	1	1	J	
Sioux City	0	0	1	!	ł	1	
Waterloo	0	0	2	· ·	- 1		,

Encephalitis, epidemic or lethargic.—Cases: New York, 1; Pittsburgh, 1; Birmingham, 1; Sacramento, 1. Pellagra.—Cases: Philadelphia, 1; Toledo, 1; Wilmington, N. C., 1; Charleston, S. C., 1; Savannah, 1; Montgomery, 1; New Orleans, 1; Los Angeles, 1. Typhus fever.—Cases: New York, 2; Charleston, S. C., 2; Atlanta, 4; Savannah, 3; Birmingham, 1; Mobile, 1; New Orleans, 2; Houston, 1. Deaths: Savannah, 1.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Weeks ended September 14 and 21, 1940.—During the weeks ended September 14 and 21, 1940, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Week ended September 14, 1940

Disease	Prince Edward Island	Nova Scotia	New Bruns- wick	Que- bec	Ontar- io	Mani- toba	Sas- katch- ewan	Alber- ta	British Colum- bia	Total
Cerebrospinal meningitis. ChickenpoxDiphtheriaDysentery		1 6 1	1 1	14 8	1 43 3 1	1 8 5	10	1 8 4	19	109 22 1
Influenza Measles Mumps Pneumonia		1	2	9	51 32 33 11	1 21 13 1	2 3	7	20 9 7 3	74 85 56 16
Poliomyelitis Scarlet fever Trachoma		1	5	41	10 50	3	4	11	4 2	13 118 2
Tuberculosis Typhoid and paraty- phoid fever Whooping cough	2	22 2 1	12 1 18	36 3 94	45 10 74	3 1 27	14	3 3 11	1 25	123 21 264

Week ended September 21, 1940

Disease	Prince Edward Island	Nova Scotia	New Bruns- wick	Que- bec	On- tario	Mani- toba	Sas- katch- ewan	Alber- ta	British Colum- bia	Total
Cerebrospinal meningitis Chickenpox Diphtheria		3 1	1	1 10 23	3 41 1	10 7	5 3	15	17	4 102 35
Dysentery		18		50	20 70	1 1 9	1 14	24	24 50	63 2 217
Mumps Pneumonia Poliomyelitis Scarlet fever		17		11 4 80	44 2 5 69	4 1 1 14	12	3	4 5	70 25 10
Trachoma Tuberculosis Typhoid and paratyphoid	3	7	6	65	61	2	12	5 1	6 2	187 2 145
fever		60	4	24 233	7 88	17	11	1	8	35 418

CUBA

Habana—Communicable diseases—4 weeks ended September 21, 1940.—During the 4 weeks ended September 21, 1940, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria	11 1 1	2	Tuberculosis Typhoid fever	25	2 7

Provinces—Notifiable diseases—4 weeks ended September 14, 1940.— During the 4 weeks ended September 14, 1940, cases of certain notifiable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Habana	Matan- zas	Santa Clara	Cama- guey	Oriente	Total
Cancer. Diphtheria.	1 3	1 12	3 4	2		13 5	20 26
Malaria Measles	18	6		12	i	38 10	70 10
Scarlet feverTuberculosisTyphoid feverYaws	18 16 1	32 61	33 15	29 45	16 23	34 37	162 197

VIRGIN ISLANDS OF THE UNITED STATES

Notifiable diseases—July-September 1940.—During the months of July, August, and September 1940, cases of certain notifiable diseases were reported in the Virgin Islands of the United States as follows:

Disease	July	August	Sep- tember	Discase	July	August	Sep- tember
Chickenpox	2 9 11	1 8 13	7 4 1 10 3	Malaria Pneumonia (lobar) Schistosomiasis Syphilis Tetanus	.1 14	1 1 23	 8
Influenza.	1, 406	6		Tuberculosis		2	i

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—A cumulative table giving current information regarding the world prevalence of quarantinable diseases appeared in the Public Health Reports of October 25, 1940, pages 1973–1976. A similar table will appear in future issues of the Public Health Reports for the last Friday of each month.

Plague

Peru—Libertad Department—Trujillo.—During the month of August 1940, 1 case of plague was reported in the city of Trujillo, Libertad Department, Peru.

Yellow Fever

Ivory Coast—Bribomo Circle—Daloa.—On October 21, 1940, 1 death from suspected yellow fever was reported in Daloa, Bribomo Circle, Ivory Coast.