Public Health Reports

Vol. 55 • AUGUST 9, 1940 • *No. 32*

THE INCIDENCE OF CANCER IN PITTSBURGH AND ALLEGHENY COUNTY, PENNSYLVANIA, 1937 [1]

By ARTHUR J. MCDOWELL, *United States Public Health Service*

This is the third of a series of papers giving the findings of a sampling survey of cancer incidence and prevalence in the United States. Data were collected from nine different study areas on the number of cases of malignant neoplasms of all types seen during one calendar year, 1937 for some cities, and 1938 for the others. The studies of Atlanta, Ga., and Chicago, Ill., have already been published (*1*, *2*). The present paper concerns the Pittsburgh study area which comprised the city of Pittsburgh, Pa., and the remainder of Allegheny County. The 1930 census lists the population of Allegheny County as 1,374,410. The study of this area affords an opportunity to compare the amount of cancer in a highly industrialized community with the amount found in areas with different characteristics.

The technique used in collecting the data and the specific information sought in all of these surveys were outlined in the first of these papers and need not be repeated here (*1*). It should be recalled that data were collected from all hospitals, doctors, and clinics in the area, and from the registrar of births and deaths in the city department of health. Sufficient information was obtained to make possible the identification of cases which had been seen and reported by more than one source. Thus it is possible to determine, within the limits of error in reporting, the actual number of persons with malignant growths who were under medical care or observation during the study year.

NUMBER OF CASES REPORTED

The total number of cases reported by doctors and hospitals was 5,559; 4,078, or 74 percent, of these cases were residents of Allegheny County; 1,454, or 26 percent, were nonresidents. During the year

[1] From the Division of Public Health Methods, National Institute of Health. The data for this study were collected under the supervision of Miss Clara Councell with the assistance of Miss Maude Perry. Miss Bess Cheney was in immediate charge of the tabulation of the data, which was done as a project of the Work Projects Administration. The entire survey was directed by Harold F. Dorn.

247316°—40——1

1937, 1,744 death certificates which listed cancer as a cause of death were filed in this area. A check of these death certificates against the cases reported revealed that 544 of the 1,744 were not reported as cases. These, then, should be added to the 5,559 reported cases, making a total of 6,103 cases for Pittsburgh.[2]

TABLE 1.—*Total number of cancer cases reported, including cases obtained from death certificates, by vital status and residence (with corresponding number of death certificates), Allegheny County, Pa., 1937*

	All cases	Cases reported by doctor(s) and hospital(s)							Cases obtained from death certificate only	Total number of cancer death certificates [1]
		Total	Vital status							
			Alive	Unknown	Dead					
					Total dead	With a cancer death certificate [1]	With a noncancer death certificate	With no death certificate		
Residents	4,622	4,078	2,608	259	1,211	1,035	67	109	544	1,579
Nonresidents	1,454	1,454	1,014	167	273	165	8	100	(?)	165
Residence unknown	27	27	12	13	2			2		
Total	6,103	5,559	3,634	439	1,486	1,200	75	211	544	1,744

[1] Any death certificate showing cancer as a cause of death (either with or without any other causes) is here regarded as a "cancer death certificate."
[2] "Nonresident cases from death certificate only" were not tabulated.

The usual method of expressing prevalence is as a rate, i. e., the ratio of the number of cases to the population. But since the latest complete census figures on population were collected in 1930, it seems advisable to await more recent population figures before computing such a rate. In the absence of a rate, the number of cases per death is given here. This ratio enables us to make comparisons among various cities and also to compare the observed figures with previously existing estimates. By using it in conjunction with the cancer death rate, an approximate prevalence rate for cancer may be obtained.[3] In computing this ratio it is necessary to use resident cases only[4] since no effort was made to obtain death certificates of nonresidents who died at their place of residence.

[2] Hereinafter the word "Pittsburgh" will be used to denote the entire Pittsburgh area. Likewise the word "hospitals" will include hospitals and clinics.

[3] In the strict sense of the word, of course, prevalence has reference to the number of cases in the population at one particular time. Actually the prevalence here determined is necessarily somewhat higher than it would be had the period covered been 1 day only, for it includes some who might have died before that day and others first seen after that day. However, inasmuch as cancer does not develop suddenly, all of the cases seen in 1937 may be considered as having existed on January 1, 1937. Thus a prevalence rate could be defined and obtained. For many purposes this sort of prevalence rate is a good device. For making comparisons among various cities an incidence rate also should probably be used. This refers to the cases that originate or are discovered during a set interval of time. The cases on which this rate may be based are listed later in this paper (tables 16, 17, and 18).

[4] Elsewhere in this paper, except where otherwise indicated, total number of cases refers to all cases, resident and nonresident.

Table 1 lists by residence both the number of cases and the number of death certificates with cancer as a cause of death. If cancer appeared at all on the death certificate, that certificate is included here. The ratio of all resident cases to all resident cancer death certificates is found to be 2.9 to 1. This is slightly higher than the similar ratio for Chicago (2.6 to 1) but considerably lower than the Atlanta ratio (5.3 to 1). The cancer death rate for the city of Pittsburgh was about 110 per 100,000 in 1930. If this rate prevailed through 1937 in the entire Pittsburgh area the case rate of cancer prevalence must have been at least 319 per 100,000. This estimate would seem to be conservative since cancer death rates have actually increased in almost every State in that time. This technique of estimating prevalence has serious defects which should be recognized. It fails to allow for differences in age distributions of the population among the cities and, more serious, in site distributions of the cases of malignant growths. Moreover, it is necessary to take into consideration the error of underreporting that enters into all of the surveys, perhaps to a varying extent.

EVALUATION OF ERROR OF UNDERREPORTING

It was pointed out in the first of these papers (*1*) that the incidence of cancer to be established in this survey would not be the total number of persons with any malignant growth, a number obviously impossible to ascertain, but rather the number of such cases which have come under medical observation. The discrepancy between the number of observed cases and the actual, undeterminable number of existing cases is not the error of underreporting mentioned here; it is not, in one sense, an error, since the incidence is defined as relating to diagnosed cases. What is meant is rather the extent to which the reported cases do not include all the cases that were under care or observation.

It is quite clear that not every case within the scope of the survey was reported. This is true in spite of the fine cooperation given by the doctors and hospitals. The error that is introduced by underreporting is partly due to the fact that reports were not obtained from all of the doctors; however, it is principally because of incompleteness in the reports that were submitted. The number of doctors in active practice in Pittsburgh was 1,804. Reports were obtained from all but 21 of these doctors, that is, from over 98 percent. The error that could arise from the small number of doctors not reporting would seem to be very small. In respect to completeness of reports, there is undeniably some underreporting introduced by doctors who reported fewer cases than they had actually seen, and by those who reported no cases but who had had one or more cases. Presumably these omissions were largely unintentional on the part of the reporting

doctor. It is true that in a few instances the doctor may have reported no cases as an easy way to seem cooperative and yet avoid the work of filling out the report. But, for the most part, whatever error does enter in through underreporting was unintentionally introduced by doctors who made out their reports as well as they could, but who depended largely on a combination of memory and a patient-payment record for obtaining data about cases they had diagnosed.

The cancer death certificates obtained from the Department of Health were checked against the reported cases as an indication of the completeness of the reporting. Table 1 shows that 544 death certificates were not reported as cases, and that the total number of resident death certificates was 1,579. But it must be realized that the existence of 544 unreported death certificates does not mean that all these 544 cases should have been reported, for in this group are cases which had never come under medical care. Many of the cases for which the death certificate was signed by the coroner or health officer were seen by that official only after death and may never have been seen by a doctor prior to death. In addition, an investigation of a sample of the death certificates showed that some of the other cases had been seen and diagnosed only shortly before death.

Nevertheless, the ratio of these unreported cases to the total resident deaths is of value in establishing a maximum of error. The 544 death certificates constitute 34 percent of the total resident deaths. As has been pointed out, the actual underreporting of dead cases that had received medical attention is probably considerably less than this. As for the reporting of living cases under treatment, it seems reasonable to suppose that the underreporting is still less, for the living cases have been seen more recently by the doctor and are more easily remembered.

It is necessary to evaluate the underreporting of cases under observation but not under treatment as a problem separate from the underreporting of cases under treatment. There is probably less complete reporting of the former group. Not only are there a great many cases of malignancy which are not followed up after apparently successful treatment, but those cases which are followed tend to be less readily reported. Often no record is made of the follow-up visit and examination since there is no charge for this visit and no record is required for billing purposes. If a notation is made, it is almost always entered on the patient's original record and can be discovered only by examining all of the doctor's records covering years of practice. For treatment cases, on the other hand, a listing by year is often available. Consequently the percentage of error found probably understates the amount of underreporting of "cases under observation only."

It should be recognized that the number of cases seen or treated but not reported would be considerably larger than it is were it not for duplications in the reporting. While failure to report any case will minimize the amount of duplication, it will not affect the total number of cases unless that particular case is reported by no one else. Since 30 percent of the cases were reported from more than one source (table 3), it seems clear that a considerable number not reported by any particular doctor were reported from some other source. Were it not for this duplication the error of underreporting here discussed would be greater.

CONCENTRATION OF CANCER TREATMENT WITHIN MEDICAL PROFESSION

An examination of the number of cases reported by each agency (table 2) shows that treatment of cancer patients is largely taken care of by relatively few doctors and hospitals. One hundred and thirty-one doctors (only 8 percent of the total number reporting) together with 36 hospitals (47 percent of the total number) reported 6,847 cases.

TABLE 2.—*Numbers and percentages of doctors and hospitals reporting, and number of cancer cases reported by each, with actual number of cases (duplicated and unduplicated), Allegheny County, Pa., 1937*

Number of cases reported by each	Number reporting		Percent reporting		Actual number of cases reported
	Doctors	Hospitals	Doctors	Hospitals	
0	890	32	54	41	0
1	282	3	17	4	285
2	190	2	12	2	384
3	79	3	5	4	246
4	53	1	3	1	216
5	23	0	1	0	115
6–10	68	6	4	8	565
11–50	52	12	3	16	1,410
51–100	6	6	(3)	8	849
Over 100	5	12	(3)	16	4,023
Total reporting	[1] 1,648	77	100	100	[2] 8,093

[1] This number does not include 135 doctors who submitted "joint reports" with other doctors.
[2] Cases listed here include many duplications of the same case reported by different sources; these were subsequently eliminated.
[3] Less than one-half percent.

This is 85 percent of the entire number of cases (duplicated and unduplicated) reported. Still more striking is the fact that 5 doctors (0.3 percent of the total) and 12 hospitals (16 percent) reported over 50 percent of the entire number of cases (4,023). At the other extreme, 54 percent of the doctors and 41 percent of the hospitals reported no cases, while an additional 29 percent and 6 percent, respectively, reported either one or two cases each. This is because many of the hospitals and doctors specialize in fields in which cancer is relatively rare (a number of the hospitals are nursing homes, tuberculosis sanatoria, etc., while many doctors are in fields such as pediatrics, neuropathology, etc.), and also because many general practi-

tioners make no effort to diagnose cancer but immediately refer every suspected case. On the other hand, from the very nature of the disease, the dermatologist, radiologist, roentgenologist, and surgeon tend to see a great many cases of cancer.

EXTENT OF DUPLICATION—REPORTING SOURCE

The extent to which cases were reported by a particular source, (i. e., by a hospital, doctor, or both) and by more than one source, is shown in table 3 and appendix table 3.

TABLE 3.—*Percentages of all cancer cases, by sex and color, reported by various sources, according to number and nature of reporting agencies, Allegheny County, Pa., 1937*

Reported by	Percentage of cases reported						
	Total	Total by sex		White		Colored	
		Male	Female	Male	Female	Male	Female
Hospital(s) only	40	46	35	46	34	68	61
Doctor(s) only	37	33	40	33	41	16	14
Both hospital(s) and doctor(s)	23	21	25	21	25	16	25
Total	100	100	100	100	100	100	100
One source only	70	72	70	72	70	75	65
Two sources only	21	21	21	21	21	15	21
Three sources only	7	6	7	6	7	8	11
More than three sources	2	1	2	1	2	2	3
Total	100	100	100	100	100	100	100

It has already been indicated that because of underreporting the data tend to understate the extent of duplication. One other factor contributing to this situation should be noted here, namely, that 135 of the 1,804 doctors filed "joint reports." Where several doctors made out a single report representing a joint practice the case report was credited to one of the doctors while the others were each credited with a joint report. These account for a part of the 135 joint reports, and the rest represent reports of doctors who merely stated that all of their cases were included in the report of some hospital, or had been referred for treatment to some local doctor or hospital. If the reports of these 135 doctors had been obtained, the amount of duplication would have been increased.

Table 3 shows that 70 percent of the 5,559 unduplicated cases were reported by one source only, while 30 percent were reported twice or more. It would be a mistake, however, to conclude that an error of only 30 percent would have been introduced by failing to eliminate duplicates, for many of the 1,600-odd cases that were duplicated were reported three or more times. In fact, a comparison of the total number reported (8,093) with the actual number of cases (5,559) shows that these 1,600 cases were reported some 4,100 times, causing

an excess of 2,500 cases. Failure to eliminate duplicates would have increased the figure not by 30 but by 46 percent.

An examination of the relative figures for white and colored persons in table 3 shows that colored cases tend to be seen by only one source in the greatest percentage of cases, and greatly exceed the whites in the percentage seen by hospitals only (68 and 61 percent for colored males and females, respectively, and 46 and 34 percent for white). This is an indication of the extent to which care of colored cases is limited to hospital clinics. Only 16 percent of the cases among colored males and 14 percent among colored females were reported solely by doctors, as compared with 33 percent and 41 percent for white males and females, respectively.

For white cases some differences by sex appear in the relative frequency of duplications and in the most common reporting source. Cases among females are more frequently duplicated and are reported more often by doctors only, and less often by hospitals only. The explanation of these differences, at least the immediate explanation, appears when the data are examined separately by site. Table 4 lists the nine main primary sites and the percentage of cases duplicated in each group. Since the sites with the most duplication are more frequent sites in females, it follows that there is more duplication among females than among males.

TABLE 4.—*Percentage of duplication in reporting of cancer cases, by site of malignancy, numbers of cases reported, and source reporting, Allegheny County, Pa., 1937*

Primary site	Percent duplicated	Number of unduplicated cases			Number of duplicated cases			
		Doctor	Hospital	Total	Doctors only	Hospitals only	Doctor-hospital	Total
Buccal cavity	23	107	175	282	11	32	43	86
Digestive tract	32	406	491	897	30	37	353	420
Respiratory system	31	44	97	141	7	18	39	64
Genitourinary system	36	459	514	973	48	67	425	540
Breast	35	335	263	598	32	13	273	318
Skin (except lip)	10	362	275	637	9	12	51	72
Brain	29	20	32	52	2	2	17	21
Bones (except jaw)	38	28	30	58	--	3	33	36
All others	20	153	138	291	11	5	57	73
All sites	30	1,914	2,015	3,929	150	189	1,291	1,630

The other marked sex difference shown in table 3 is that the percentages of all cases reported by hospitals only, and by doctors only, are 46 and 33, respectively, for males, but are 34 and 41 for females. That is, the cases among females tend to be more often reported by a doctor only and less often by a hospital only than do those among males. As in the case of the sex difference discussed above, the immediate explanation is found in the sites involved. Table 4 shows that cases reported by hospitals only far exceed those reported by doctors

only in every site except breast, genitourinary, skin, and "all others." The two most important of these four groups occur predominantly among females. It is not clear why the sites of cancer which predominate among males should be more frequently reported by a hospital than by a doctor, while the reverse is true of sites predominating among females. There would seem to be a relationship between the accessibility of the site and the frequency with which it is reported by doctors. The order of sites arranged according to the relative frequency of reports by doctors only is as follows: breast, skin, all others, genitourinary, bones, digestive tract, buccal cavity, brain, and respiratory. Except for the buccal cavity, this order roughly corresponds to the accessibility of the sites, and so it might be contended that the reports made by doctors only tend to be cases with more easily accessible sites, the greatest portion of which are among females.

CONFIRMATION OF DIAGNOSIS

The problem of confirmation of diagnosis, i. e., whether diagnoses were confirmed by microscopic tissue examination (biopsy or necropsy), might have been considered earlier along with the problem of evaluating the elements of error in the data. It is indeed important to know how much confidence can be placed in the cancer diagnoses reported by various doctors and institutions. But the question "to what extent are diagnoses of malignancy reliable" is a much broader one and merits special consideration.

Table 5 lists all reported cases according to whether the diagnosis was confirmed by a microscopic test. The data are classified according to site and are given for cases reported by a hospital (either with or without other reports from hospitals or doctors) and for cases reported by doctors only. Of all the cases, 62 percent were confirmed by a microscopic tissue examination. Of cases that were reported by a hospital, 65 percent had such a test. Of cases seen by doctors only, 58 percent were confirmed by microscopic examination. It should be recognized that these percentages—for doctors only and for hospitals—cannot properly be compared since the latter group may include many cases seen by a doctor as well as by a hospital.

There are sharp differences in the relative frequency of microscopic examinations among the several sites. Seventy-nine percent of the cases of breast cancer were thus confirmed, while only 46 percent of the malignancies of the digestive tract were microscopically examined. For genitourinary malignancy, as for breast cancer, there was a high percentage (72) of microscopic tests. The determining factor in this seems to be largely accessibility. The breast and genitourinary

malignancies lend themselves most readily to removal of tissue for examination; the digestive tract, respiratory system, and brain are least accessible for this purpose. In many of the buccal cavity malignancies (which are largely lip), and in the skin malignancies, the removal of the tissue specimen would cause obvious disfiguration. Dermatologists, in making their reports, often offered this explanation for cases without microscopic examination.

TABLE 5.—*Percentage of all cancer cases with microscopically confirmed diagnosis by site and by reporting source, with actual number of cases confirmed and not confirmed, Allegheny County, Pa., 1937*

Primary site	Percent of all cases confirmed by microscopic diagnosis			Number of cases			
				Confirmed by microscopic diagnosis		Not confirmed by microscopic diagnosis	
	Total	Hospital	Doctor only	Hospital	Doctor only	Hospital	Doctor only
Buccal cavity	51	48	57	121	67	129	51
Digestive tract	46	48	42	421	185	460	261
Respiratory system	52	53	47	82	24	72	27
Genitourinary system	72	74	67	742	342	264	165
Breast	79	85	69	468	253	81	114
Skin (except lip)	60	71	50	240	186	98	185
Brain	56	45	82	23	18	28	4
Bones (except jaw)	61	70	39	46	11	20	17
All others	65	64	66	129	108	71	56
All sites	62	65	58	2,272	1,194	1,223	870

PRIMARY SITE DIFFERENCES BY SEX AND COLOR

Attention has already been drawn to the fact that there are decided differences in the frequency with which malignancies occur in certain sites in males and females. Table 6 and appendix table 6 give the percentages and the actual numbers of cases by primary site groups, sex, residence, and color of all cases (including cases from death certificates only).[5]

It is well known that the various distributions (age, sex, site, etc.) of cases drawn from a particular population will be a function of that population and will reflect any unusual distribution that exists in the study group. Here, however, the group studied included the entire population and so the conclusions are not thus biased insofar as Pittsburgh is concerned. When detailed comparisons are made with other cities the population will be carefully analyzed.

[5] It was decided to include the "death-certificate-only cases" with the reported cases in most of the following tables (all marked as to inclusion). This tends to overweigh the data very slightly in two respects: (1) the proportion of persons in the older ages, (2) the proportion of the cases that are primary in the digestive tract. But since the number of cases from death certificates only is less than 10 percent of the total, the effect of their inclusion is slight. Appendix tables 1 and 2 give the number of cases and the percentage distributions by age and by primary site for reported cases (exclusive of death-certificate-only cases).

TABLE 6.—*Percentage distribution of all cancer cases (including reports from death certificates only) by primary site and sex, Allegheny County, Pa., 1937*

Primary site	Percentage of cases in each site group			Primary site	Percentage of cases in each site group		
	Total	Male	Female		Total	Male	Female
Buccal cavity	6	11	2	Brain	1	2	1
Digestive tract	26	36	19	Bones	2	2	1
Respiratory system	4	7	2	All others	7	7	6
Genitourinary system	26	18	33				
Breast	16	1	27	All sites	100	100	100
Skin	12	16	9				

It will be noted that, in males, the digestive tract is by far the most frequent site, with skin, buccal cavity, and genitourinary system the only other especially frequent sites. These four sites account for 81 percent of all the male cancer cases, and the digestive tract alone accounts for over one-third of them. For females, however, the most frequent site is the genitourinary system. This site was reported in one-third of the cases, while breast cancer was reported in more than a fourth (27 percent) of all cases. These two sites constitute 60 percent of all reported cases among females. The only other site among females in which any appreciable number of cases occurred was the digestive tract with 19 percent.

In the tabulation by color in appendix table 6, the colored cases show a marked accentuation of the tendency of the cases to fall into certain groups. Among colored males 48 percent of the cases were primary in the digestive tract (36 percent for white males), and among colored females 50 percent of the cases were of the genitourinary system (32 percent for white females). This is probably another indication that cases among colored persons are often first diagnosed at a late stage of the disease, when metastases and extensions make diagnosis of primary site difficult. A carcinoma of the ovary, for example, might be called cancer of uterus if the diagnosis is made at a late stage of the condition.

There seem to be some slight differences between residents and nonresidents in the site distribution of all cases. The proportion of cases of the digestive tract is lower, while the proportions in the buccal cavity, skin, brain, and bones are slightly higher among nonresidents. This is to be expected, since patients with cancer of the digestive tract are often too ill to travel in search of medical care. Not only are they likely to be more completely incapacitated, but the diagnosis is often made at a rather advanced stage and their duration of life after diagnosis is likely to be much less than the duration of cases of other sites. (See table 14.)

These differences in distribution between resident and nonresident patients and white and colored do not noticeably affect the percentage distribution by site for all cases by sex as given in table 6.

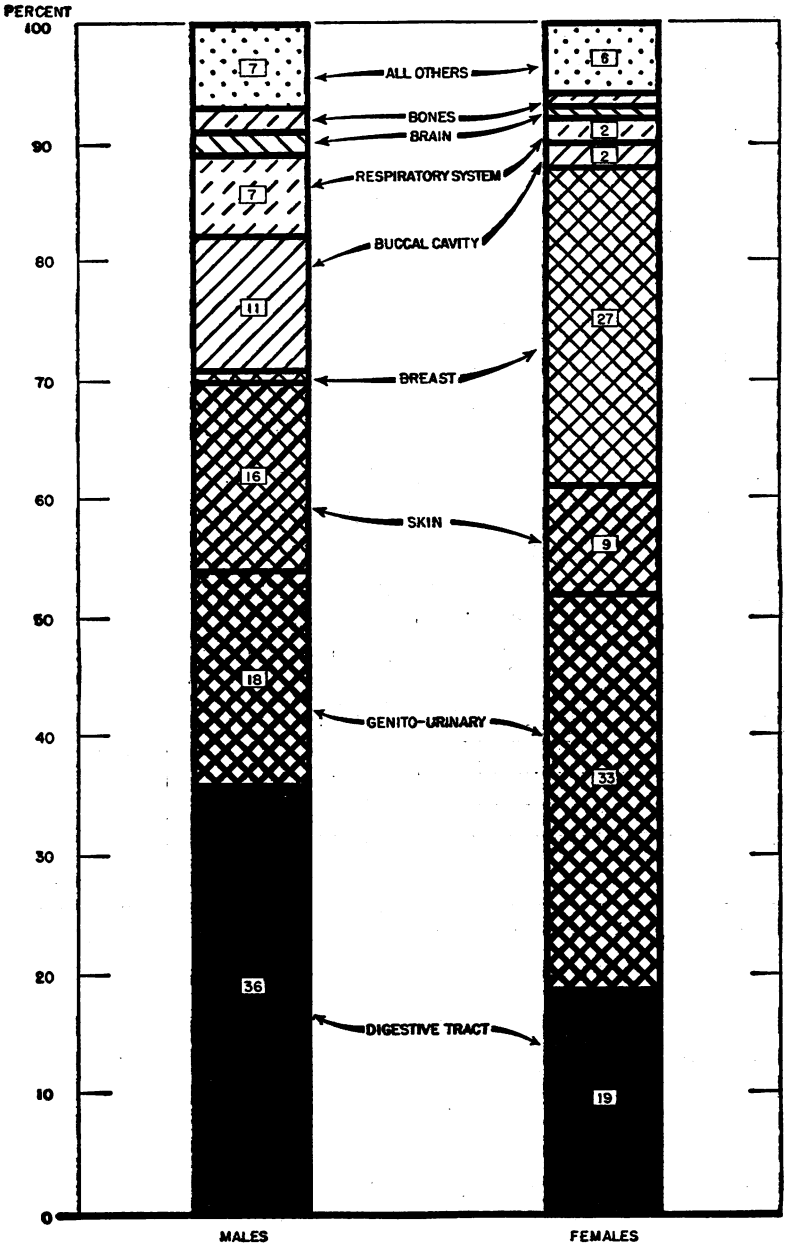

FIGURE 1.—Percentage distribution of cases of cancer by sex and primary site, Allegheny County, Pa., 1937.

In order to show the great differences in the fatality of various types of cancer, table 7 lists the number of cases by primary site and by vital status at the close of the study period. The ratios of total cases to dead cases used here do not indicate the actual extent of the disease since they are based on both residents and nonresidents, and nonresidents tend to magnify this ratio (they may have died at home and not be listed as dead in the report). This explains why the ratio for all sites is here 3.4 to 1, while for resident cases it was shown to be 2.9 to 1. However, these ratios do serve to compare the relative fatality among the various sites.

There were over 26 cases of skin cancer for every death from this site, while there were only 1.7 cases of malignant tumor of the brain for every death. Cancers of the brain, digestive tract, respiratory system, and bones are especially fatal, while there are considerably more cases per death where the site is the buccal cavity, breast, genitourinary system, or "all others."

TABLE 7.—*Number of cases reported*[1] *by primary site and by vital status (as of January 1, 1938), with the ratios of total to dead cases and percentages of all cases seen during year that were alive at the end of the year, Allegheny County, Pa.*

Primary site	Number of cases[1]			Number of cases (living or dead) per dead case	Percent alive on January 1, 1938
	Alive	Dead	Total		
Buccal cavity	287	63	350	5.6	82.0
Digestive tract	603	610	1,213	2.0	49.7
Respiratory system	102	88	190	2.2	53.7
Genitourinary system	1,003	380	1,383	3.6	72.5
Breast	687	165	852	5.2	80.6
Skin	643	25	668	26.7	96.3
Brain	24	36	60	1.7	40.0
Bones	47	34	81	2.4	58.0
All others	238	85	323	3.8	73.7
All sites	3,634	1,486	5,120	3.4	71.0

[1] Excluding 439 cases of unknown vital status.

AGE DISTRIBUTION OF THE CANCER CASES

Of course cancer is primarily a disease affecting people of the older ages. But this has been so often repeated that it tends to obscure the extent to which malignant growths are found among middle aged and even young persons. During the study year in Pittsburgh, 1,048 (18 percent) of the reported cases were under 45 years of age. Ninety-four were under 20 years of age, and 171 were between 20 and 30 years old. The median age for all the cases reported in the Pittsburgh survey was 57 years, 59 for males, and 56 for females. That is to say, one-half of the total cases were aged 57 years or less. And, if 65 years of age is used to denote the lower limit of old age, then 68 percent of the cases were below this level; only 32 percent were "aged." This is not to deny that cancer prevalence rates are highest among elderly

persons. Even though only 32 percent of all the cancer cases occurred in persons 65 or over, those cases derive from a relatively small population and represent a much higher rate than the number readily indicates.

The age data were considered separately by residence, color, and sex before table 8 was prepared. It was found that resident and nonresident figures differed but little in distribution and that the colored persons, while they did tend to be somewhat younger than the white, did not differ by enough to affect markedly the combined age distribution. (The colored constituted only about 3 percent of the total.) Consequently, these groups are combined in table 8. There was found to be a difference in age distribution of male and female cases, as shown in the table. The actual numbers from which these percentages were derived are shown in appendix table 8 and are also given by sex, color, and residence.

TABLE 8.—*Age distribution of all*[1] *cases of cancer by cumulative percentages in or below each 5-year age group, by sex, Allegheny County, Pa., 1937*

Age group	All cases		Male		Female	
	Percent in each group	Percent in or below each group	Percent in each group	Percent in or below each group	Percent in each group	Percent in or below each group
Under 5	(2)		(2)		(2)	
5–9	(2)		(2)	1	(2)	
10–14	(2)	1	(2)	1	(2)	1
15–19	1	2	1	2	(2)	1
20–24	1	3	1	3	1	2
25–29	1	4	2	5	2	4
30–34	3	7	2	7	3	7
35–39	4	11	3	10	5	12
40–44	7	18	5	15	8	20
45–49	10	28	9	24	12	32
50–54	13	41	12	36	13	45
55–59	13	54	13	49	14	59
60–64	14	68	14	63	12	71
65–69	12	80	14	77	11	82
70–74	10	90	11	88	9	91
75–79	6	96	8	96	5	96
80–84	3	99	3	99	3	99
85–89	1	100	1	100	1	100
90 and over		100		100		100

[1] Includes all reported cases and cases obtained from death certificate only.
[2] Less than one-half percent.

SEX DIFFERENCES IN AGE DISTRIBUTION

The sex difference in age distribution occurs in the years 30 to 75, a larger percentage of females than males being in the lower portion of that span with the proportions reversed in the latter part of those years. Forty-seven percent of the female cases are between the ages of 40 and 59, and only 39 percent of the male cases. A consideration of the age distributions for each of the primary site groups will show that this is because cancers of the breast and genitourinary system, the important sites in females, tend to be found largely in this (40–60) age span.

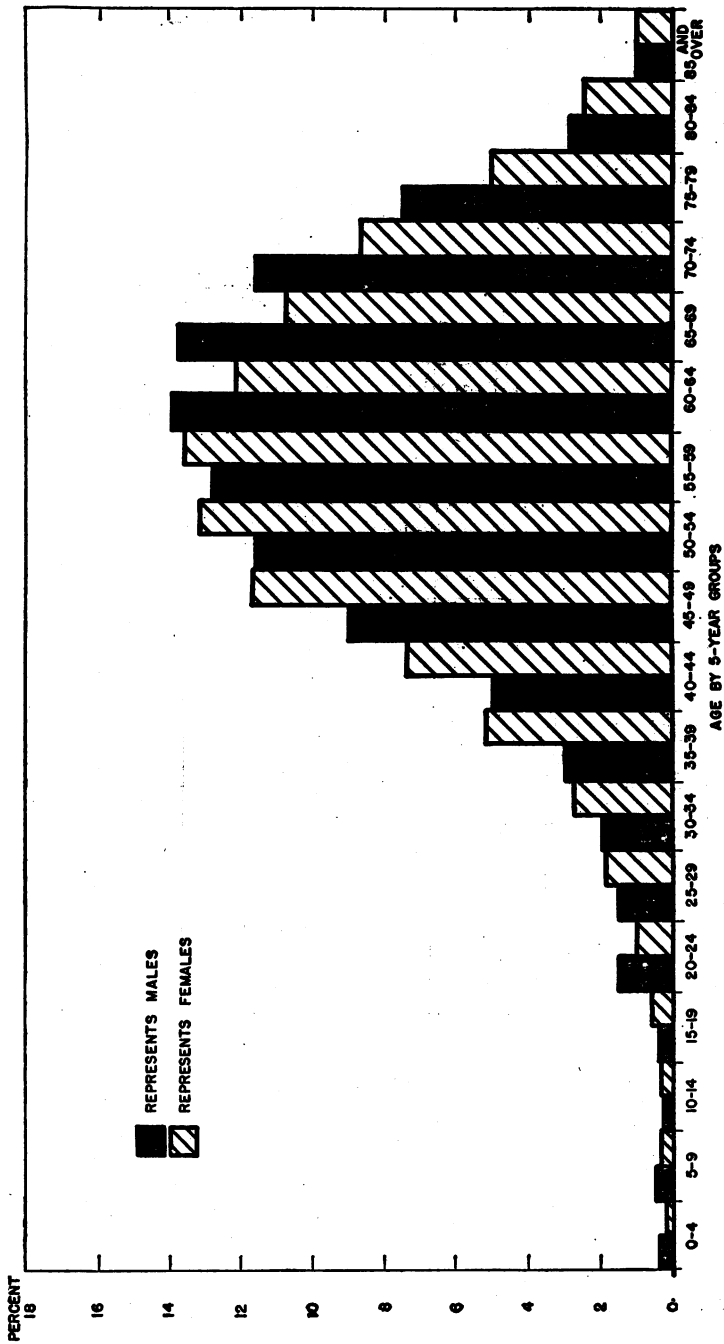

FIGURE 2.—Percentage distribution of cases of cancer by age and sex, Allegheny County, Pa., 1937.

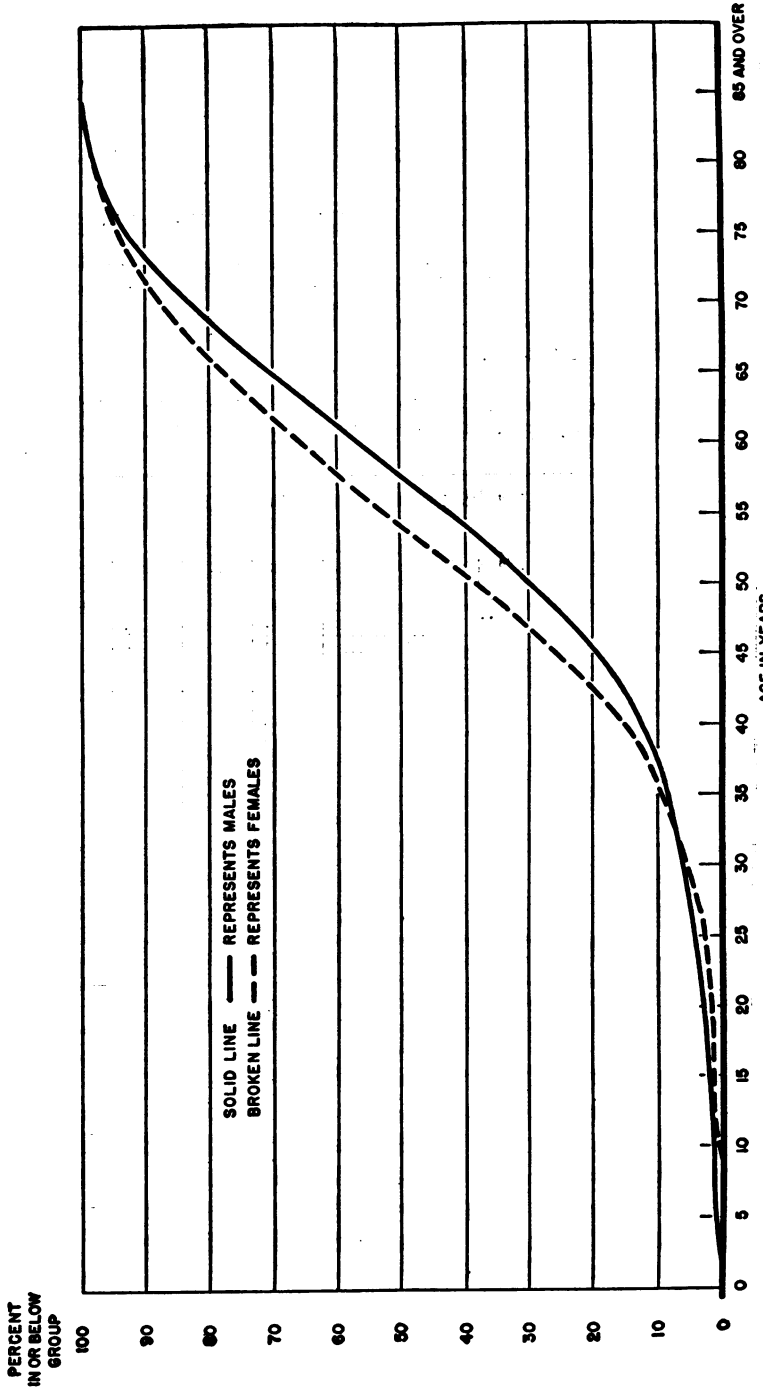

FIGURE 3.—Percentage distribution of cancer cases by age and sex (cumulative percentage at or below each age), Allegheny County, Pa., 1937.

AGE DISTRIBUTIONS BY SITE AND SEX

Because a number of differences have been found between cases of malignancy in males and females, both in the frequency with which particular sites occur and in the ages which are most often affected, it is well to examine the data separately by sex in the consideration of the interrelationship of site and age.

All cases among males are tabulated in appendix table 9 by age groups and by primary sites. For more ready comparison table 9 lists the percentage age distribution for each primary site (using cumulative percentages), and table 10 shows the percentage site distribution for each age group.

TABLE 9.—*Percentage age distribution of cases for each primary site and for all sites, males only (cumulative percentage in or below any age group) Allegheny County, Pa., 1937*

Age group	Percent of cases for each site, in and below any age group								
	Buccal cavity	Digestive tract	Respiratory system	Genitourinary system	Skin	Brain	Bones	All others	All sites
Under 5	-------	-------	-------	-------	1	2	4	3	-------
5–9	-------	-------	-------	-------	1	18	6	3	1
10–14	-------	-------	-------	-------	1	20	9	4	1
15–19	-------	-------	-------	1	2	20	15	6	2
20–24	1	1	-------	2	3	34	24	8	3
25–29	2	2	1	4	4	43	24	13	5
30–34	2	4	2	6	6	54	30	16	7
35–39	5	6	6	7	12	61	30	20	10
40–44	8	10	15	11	16	71	35	29	15
45–49	17	20	33	16	21	84	50	40	24
50–54	31	33	49	26	33	86	56	50	36
55–59	46	48	66	34	46	93	63	62	49
60–64	62	64	82	47	57	100	78	74	63
65–69	76	78	90	67	73	-------	89	82	77
70–74	87	90	96	84	85	-------	94	93	88
75–79	97	96	99	94	95	-------	100	95	96
80–84	98	99	100	99	99	-------	-------	99	99
85–89	100	100	100	100	100	-------	-------	100	100
90 and over	100	100	100	100	100	100	100	100	100
Number of cases	287	920	176	445	387	56	54	178	[1] 2,516

[1] Cases of unknown age excluded. Cases obtained from death certificates are included.
Percentage age distribution not computed for "breast" primary, since there were only 13 cases.

There are considerable differences in age distributions for the various sites. Three groups of sites occur much more frequently in younger people than do any of the others. These are malignancies of the brain, bones, and "all other sites"; 54 percent of the brain cases, 30 percent of the bone cases, and 16 percent of those included under "all others" occurred in persons under 35 years of age. A very different age distribution is presented by malignancies of the skin, the buccal cavity, the genitourinary system, and the digestive tract. The percentages of cases among persons under 35 in these groups were, respectively, 6, 2, 6, and 4, while persons over 65 constituted 43, 38, 53, and 36 percent of these same groups. Respira-

tory cases seem to be concentrated in neither younger nor older persons, but rather in the age group from 40 to 70. Only 2 percent of these were under 35 years, 18 percent were 65 years or over, and only 10 percent were over 70 years of age.

TABLE 10.—*Percentage site distribution of cases [1] for each age group [2] and for all ages combined, males only, Allegheny County, Pa., 1937*

Age group	Percent of cases for each age group in each primary site group										Number of cases
	Buccal cavity	Digestive tract	Respiratory system	Genito-urinary system	Breast	Skin	Brain	Bones	All others	All sites	
Under 20	4	11	-------	7	-------	13	24	17	24	100	46
20–24	5	16	-------	19	-------	14	22	13	11	100	37
25–29	3	24	5	16	-------	14	14	-------	24	100	37
30–34	2	29	4	19	2	15	13	6	10	100	48
35–39	10	25	8	11	1	32	5	-------	8	100	73
40–44	9	34	13	12	-------	11	5	2	14	100	126
45–49	10	41	14	11	-------	10	3	3	8	100	229
50–54	14	40	10	14	1	14	-------	1	6	100	298
55–59	13	41	9	12	-------	16	1	1	7	100	327
60–64	13	41	8	16	1	12	1	2	6	100	357
65–69	12	37	4	24	-------	17	-------	2	4	100	351
70–74	11	36	4	25	-------	16	-------	1	7	100	297
75–79	14	31	3	25	2	21	-------	2	2	100	192
80–84	3	41	1	27	-------	19	-------	-------	9	100	74
85 and over	29	25	-------	21	-------	17	-------	-------	8	100	24
All ages	11	36	7	18	1	16	2	2	7	100	[1] 2,516

[1] Cases obtained from death certificates only are included.
[2] Percentage site distribution not computed for 5-year age groups below 20 years or above 84 because of too few cases.

TABLE 11.—*Percentage age distribution of all cases [1] of cancer for each primary site and for all sites, females only (cumulative percentages in or below any age group), Allegheny County, Pa., 1937*

Age group	Percent of the cases, for each site, in and below any age group									
	Buccal cavity	Digestive tract	Respiratory system	Genito-urinary system	Breast	Skin	Brain	Bones	All others	All sites
Under 5	2	-------	-------	-------	-------	-------	3	2	1	------
5–9	2	-------	2	-------	-------	1	17	7	2	------
10–14	2	-------	2	-------	-------	1	21	19	3	1
15–19	2	-------	6	1	-------	1	21	26	5	1
20–24	5	1	6	2	1	2	24	30	8	2
25–29	5	2	6	4	2	4	31	35	13	4
30–34	5	3	6	8	5	5	38	37	19	7
35–39	8	5	7	15	10	8	45	37	25	12
40–44	10	10	17	24	20	11	48	47	31	20
45–49	21	19	28	37	35	19	59	53	40	32
50–54	34	28	44	53	49	31	69	65	52	45
55–59	42	41	63	67	65	41	90	72	65	59
60–64	55	54	74	79	78	56	93	84	75	71
65–69	73	70	81	88	88	67	100	91	83	82
70–74	84	83	96	95	95	82	100	95	92	91
75–79	89	94	98	99	98	90	100	98	96	96
80–84	94	98	100	100	99	98	100	100	98	99
85–89	100	100	100	100	100	100	100	100	99	100
90 and over	100	100	100	100	100	100	100	100	100	100
Number of cases	62	673	54	1,154	926	293	29	43	223	[1] 3,536

[1] Cases of unknown age excluded. Cases obtained from death certificate only are included here.

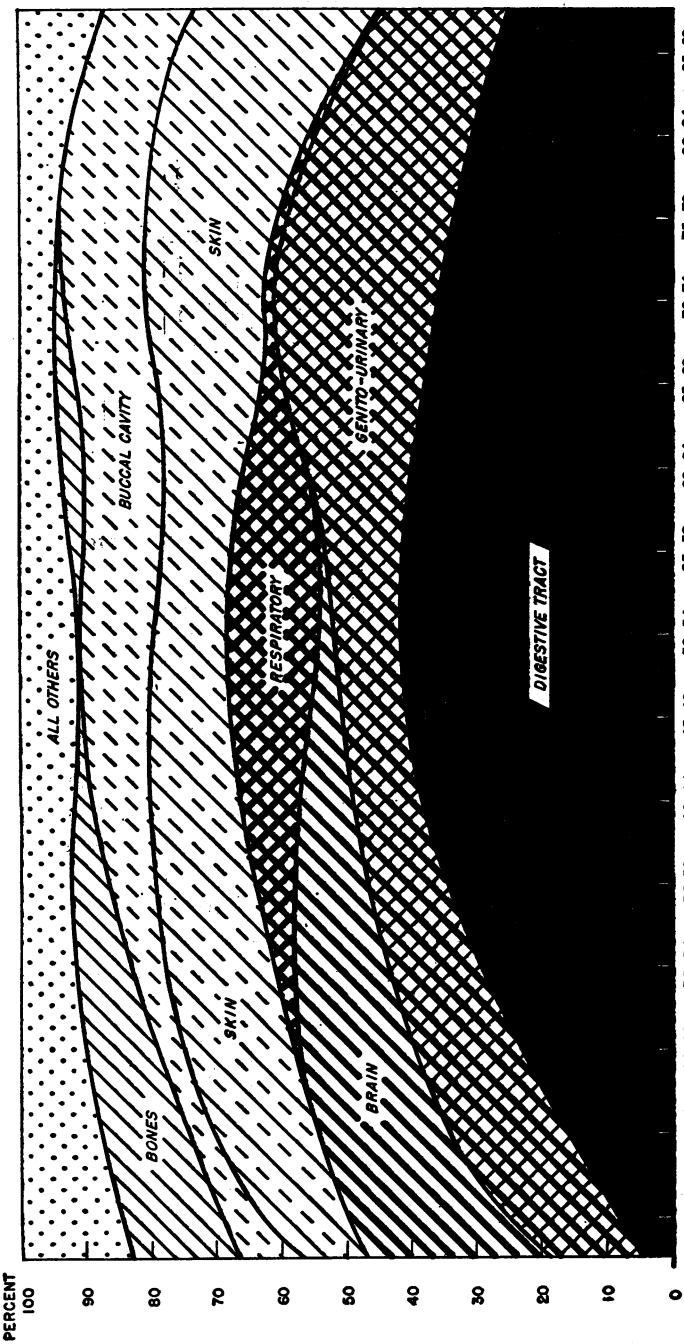

FIGURE 4.—Percentage distribution of cases of cancer by primary site and age, males only, Allegheny County, Pa., 1937.

TABLE 12.—*Percentage site distribution of all cases of cancer [1] for each age group [2] and for all ages, females only, Allegheny County, Pa., 1937*

Age group	Buccal cavity	Digestive tract	Respiratory system	Genitourinary system	Breast	Skin	Brain	Bones	All others	All sites	Number of cases
Under 20	2	4	6	17	4	6	13	23	25	100	48
20–24	6	6	-------	32	19	9	2	6	19	100	32
25–29	-------	11	-------	42	18	8	3	3	15	100	65
30–34	-------	11	-------	45	23	3	2	1	15	100	97
35–39	1	8	1	48	29	5	1	-------	7	100	182
40–44	-------	12	2	40	35	4	-------	2	5	100	258
45–49	2	14	2	36	34	5	1	1	5	100	408
50–54	2	13	2	40	28	7	1	1	6	100	468
55–59	1	18	3	32	32	6	1	1	6	100	474
60–64	2	21	1	32	27	10	-------	1	5	100	433
65–69	3	28	1	29	24	8	1	1	5	100	384
70–74	2	28	3	26	20	14	-------	1	6	100	307
75–79	2	40	1	23	17	13	-------	-------	4	100	177
80–84	3	32	1	14	16	26	-------	1	7	100	88
85 and over	11	42	-------	6	11	19	-------	-------	11	100	36
All ages	2	19	2	33	27	9	1	1	6	100	[3] 3,536

[1] Cases obtained from death certificate only are included here.
[2] Site distribution not computed for 5-year age groups below 20 years or above 84 years because of too few cases; nor is it computed for the age unknown group.

The age distribution by site for females, shown in table 11, is very similar to that for males in all but two sites, breast and genitourinary. For these two sites, cases tend to be found in the middle portion of the age span. Two-thirds of these cases are between the ages of 45 and 70 (64 percent for genitourinary and 68 percent for breast).

DURATION OF MALIGNANT CASES

Just as cancer prevalence, as considered in this paper, refers to the prevalence of diagnosed cases of cancer, so the problem of duration concerns the duration of cases after they have been diagnosed as malignant. The retrospective estimate that the doctor sometimes makes as to duration of the case prior to his first diagnosis is too subjective a judgment definitely to establish duration. What is meant here is the length of time from first diagnosis of malignancy to the end of the study year or to the date of death.

Table 13 and appendix table 13 give the number and percentages of cases reported, by the duration of the case (in 6-month duration groups) for all cases, and for cases classified by color and vital status. Of the 1,486 dead cases, 420, or 28 percent, had a duration of 1 month or less. That means that in 1937 in Pittsburgh 420 cases of cancer were diagnosed only when the malignancy was in such a late stage that death resulted in less than 2 months. This does not include any of the cases, previously mentioned, which were not seen by a doctor prior to death, and which were included only because cancer was specified as the cause of death on the death certificate.

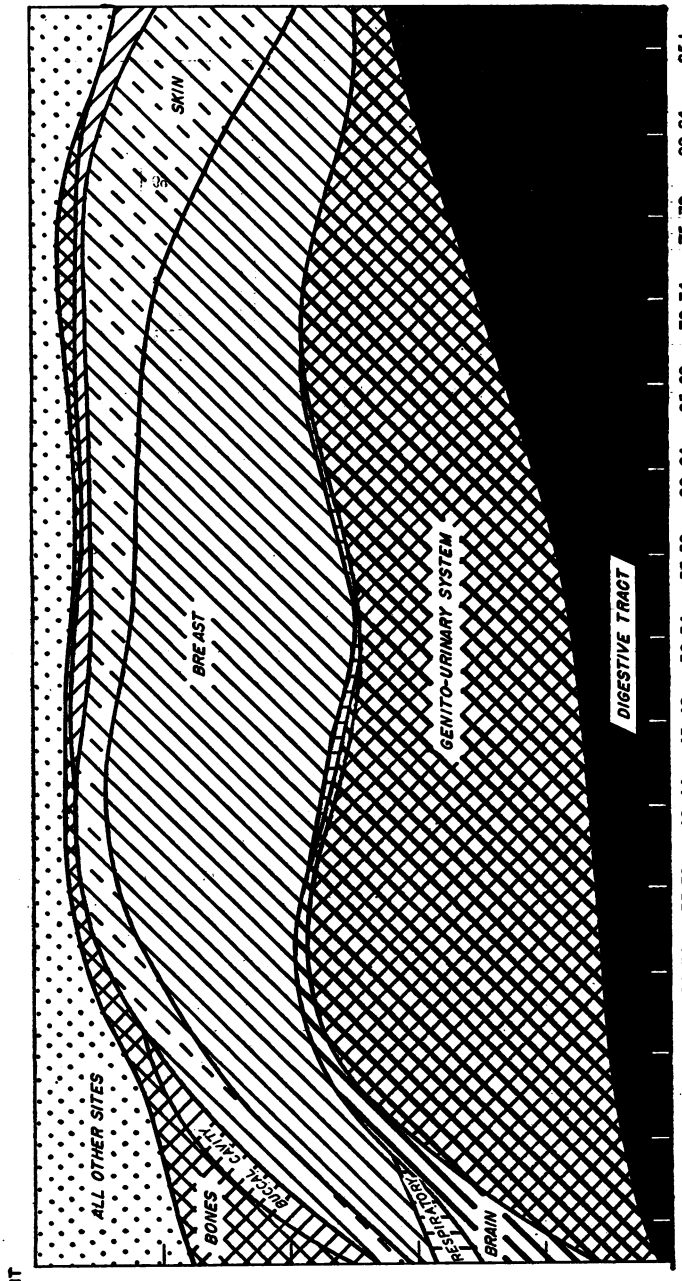

FIGURE 5.—Percentage distribution of cases of cancer by primary site and age, females only, Allegheny County, Pa., 1937.

TABLE 13.—*Percentage of reported cases in each 6-month duration group, by vital status and color, Allegheny County, Pa., 1937* [1]

Duration of case	Percent in any duration group				
	Total	Alive	Dead	White	Colored
Under 6 months	42	33	59	42	47
6–11 months	24	25	21	24	20
12–17 months	11	12	9	11	11
18–23 months	6	8	3	6	5
24–29 months	3	4	2	3	4
30–35 months	3	3	1	3	4
36–41 months	2	3	1	2	3
42–47 months	2	2	1	1	2
48–53 months	1	2		2	1
54–59 months	1	1		1	1
5 years and over	5	7	3	5	2

[1] The average duration is one-half month longer than shown in this table; durations were recorded in months and cases first seen in December 1937 were coded as having zero month's duration.

In table 13 the percentages of all cases in each age group are listed separately for white, colored, alive, dead, and all cases combined. Of the cases that died during the study year 80 percent had been first diagnosed as malignant less than 12 months before death and 59 percent less than 6 months before death. For all cases combined 42 percent had a duration of less than 6 months; for white cases this percentage is 42 and for colored it is 47. On the other hand, 17 percent of the cases had a duration of 2 years or over and 5 percent a duration of 5 years or over.

DURATION ACCORDING TO PRIMARY SITE OF MALIGNANCY

There are marked differences among the various sites in the average duration of cases. A large part of this variation is, of course, a reflection of the varying fatality rates for different sites. Since, for example, malignant neoplasm primary in the brain produces death more often and more rapidly than carcinoma of the breast, the duration of brain cases will tend to be shorter. Table 14 lists for each general site group the percentage of cases in each 6-month duration group. The shortest durations were among the brain malignancies, where 83 percent of those alive had been first seen less than 1 year prior to January 1, 1938, while cancer of the breast had the longest duration, with only 49 percent of the live cases of less than 1 year's duration. Between these two extremes are ranged the other sites in order from lowest to highest: buccal cavity, genitourinary, skin, all others, bones, digestive tract, and respiratory system.

The variation in average duration among the sites results either from the relative differences in fatality or the differences in the extent of follow-up observation for different sites, or from both these factors. That malignant neoplasms of the brain and respiratory system, for example, have a relatively short duration is largely a result of the high fatality of these growths. Skin cancers, on the other hand, are

less often kept under long medical observation subsequent to treatment and so the data given in table 14 (45 percent of the skin cases with a duration of 1 year of more) tend to understate the average duration of this type of cancer.

TABLE 14.—*Percentage of cancer cases in any particular duration [1] group, by primary site and vital status, Allegheny County, Pa., 1937*

Primary site and vital status	Percent of cases with duration (in months)											
	One month	Under 6	6-11	12-17	18-23	24-29	30-35	36-41	42-47	48-53	54-59	60 and over
Buccal cavity:												
Alive	(2)	26	26	11	6	7	6	3	4	3	1	7
Dead	13	43	33	13	6	------	6	5	------	------	------	------
Digestive tract:												
Alive	(2)	43	27	9	6	3	2	1	3	------	2	4
Dead	57	71	17	5	2	1	1	1	------	1	------	1
Respiratory system:												
Alive	(2)	50	32	6	3	2	------	1	2	------	------	4
Dead	24	57	27	8	1	2	2	2	------	------	------	1
Genitourinary system:												
Alive	(2)	32	24	13	9	5	3	3	2	2	1	6
Dead	23	50	26	11	5	2	2	------	1	1	1	2
Breast:												
Alive	(2)	25	24	12	8	5	4	4	2	4	1	11
Dead	13	34	24	17	4	4	1	2	2	1	1	10
Skin:												
Alive	(2)	31	24	15	9	4	2	3	2	2	------	3
Dead	16	32	32	12	12	4	------	------	------	------	------	3
Brain:												
Alive	(2)	58	25	------	4	5	4	------	4	------	------	------
Dead	56	89	11	------	3	------	------	------	------	------	------	------
Bones:												
Alive	(2)	30	36	15	15	------	2	------	------	------	------	2
Dead	21	56	26	9	3	------	3	------	------	------	------	3
All others:												
Alive	(2)	35	26	13	6	4	4	4	1	2	1	4
Dead	32	66	16	7	3	3	1	------	------	------	------	1
All sites:												
Alive	(2)	33	25	12	8	4	3	3	2	2	1	7
Dead	28	59	21	9	3	2	1	1	1	------	------	3

[1] Duration here refers to time from date first seen by doctor to Jan. 1, 1938, or to date of death if in 1937.
[2] Percentages for 1 month and under are listed only for dead cases. This group is included in the under-6-month group.

DURATION AFTER CESSATION OF TREATMENT

Despite all the factors making for underreporting of cases that were "under observation only" during 1937, there were 836 such cases reported in the Pittsburgh area. Treatment had stopped before January 1, 1937, on all of these cases and they were seen during the year merely for follow-up purposes. Appendix table 15, which gives the number of months prior to 1937 since the last treatment had been received, shows that 62 of the 836 cases had been under observation (without any recurrence) for at least 5 years, and 25 of them for 8 years or more. Over one-fourth of these 836 cases were malignant growths primary in the genitourinary system, and nearly a fourth more were primary in the breast. The four sites, genitourinary, breast, skin, and buccal cavity, account for 656, or 78 percent, of the cases under observation only.

TABLE 15.—*Number of cases under observation only during 1937, and percentages such cases are of total cases and of all cases seen prior to 1937, by site, Allegheny County, Pa., 1937*

Primary site	Number of cases			Percent that cases under observation only are of—	
	Total	First seen prior to 1937	Under observation only	Total	Total seen prior to 1937
Buccal cavity	368	169	86	23	51
Digestive tract	1,316	349	114	9	33
Respiratory	206	49	7	3	14
Genitourinary	1,513	623	215	14	35
Breast	916	460	193	21	42
Skin (except lip)	709	315	162	23	51
Brain	73	7	1	1	14
Bones (except jaw)	94	30	6	6	20
All others	364	134	52	14	39
All sites	5,559	2,136	836	15	39

In table 15 the number of cases under observation only are listed along with the total number of cases reported and the number of cases reported as under observation or treatment on January 1, 1937. These are listed separately by primary site. This same table gives the percentage that the cases under observation only are of all the cases reported and of all the cases that were in existence at the beginning of 1937. For all sites combined 15 percent of the entire number of cases reported were not treated in 1937. For cancers of the breast, skin, and buccal cavity about 1 case in 4 was under observation only. The final column of percentages represents the part of the cases under the care of doctors and hospitals at one particular time that were under observation only and remained free of recurrence for 1 year thereafter. This figure is 39 percent for all sites combined, about 50 percent for skin and buccal cavity, and over 40 percent for breast.

Much speculation has been made about the efficacy of any "cure" in cancer treatment. These data furnish evidence of cases that have been in existence for many years and have remained free from any further development of malignant growth. At the same time, a consideration of appendix table 13 in conjunction with appendix table 15 shows the necessity for caution in speaking of complete cure, for while 293 persons had been diagnosed as having a malignant growth at least 5 years prior to January 1, 1938, 38 of these persons died during the year 1937. An examination of the data on these 38 cases reveals that, while no death certificate was found for 9 of them and the death certificates of 6 of the remainder did not list cancer as a cause of death, cancer was stated to be the cause of death for the remaining 23 cases. That is, these patients had first been seen with cancer in 1932 or earlier and had presumably been cured (since treatment rarely continues for that period of time) but the growth had recurred and caused death during the study year. Still other cases had suffered

recurrences and were, or had been, under treatment. While 293 cases had been in existence for 5 years or more, only 191 cases that were under observation only in 1937 had received no treatment for 2 or more years.

CASES ORIGINATING IN 1937

As pointed out above, the strict problem of incidence concerns the rate at which new cases originate or are discovered. In tables 16, 17, and 18 only cases that were first seen in 1937 are listed. These are tabulated by vital status, age group, and primary site, classified by sex, color, and (for white persons) residence. There were 1,536 new cases of malignant neoplasm among males in 1937, and 1,887 cases among females. During the year 508 of these males died and 441 of the females. For residents these figures are 381 and 347, respectively. The sites already shown to have greater fatality and shorter duration (i. e., brain, respiratory, etc.) are represented in slightly larger proportion among the new cases arising in 1937 than among all cases reported. Male cases, which constituted 42 percent of all cases reported, account for 45 percent of the cases originating in 1937. In general, however, the cases first diagnosed in 1937 present the same picture as did the total number of cases. This is to be expected since they make up 62 percent of that total and, moreover, differ from an additional 23 percent still being treated in 1937 only in that the latter were first diagnosed some time in 1936 instead of in 1937.

TABLE 16.—*Cases of cancer first seen in 1937, by vital status (on January 1, 1938), sex, color, and (for white) residence, Allegheny County, Pa., 1937*

Vital status	Total cases first seen in 1937		White				Colored [1]	
			Resident		Nonresident			
	Male	Female	Male	Female	Male	Female	Male	Female
Alive	867	1,236	585	809	262	336	20	31
Unknown	161	210	101	125	55	82	5	3
Dead	*508*	*441*	*381*	*347*	*101*	*75*	*26*	*19*
Death certificate located	448	383	354	316	70	49	24	18
Death certificate not located	60	58	27	31	31	26	2	1
Total	1,536	1,887	1,067	1,341	418	493	51	53

[1] Five of these cases were nonresidents. The remaining 99 were residents.

TABLE 17.—*Percentage age distribution of cancer cases first seen in 1937, Allegheny County, Pa.*

Age group	Percent of cases in each age group			Age group	Percent of cases in each age group		
	Total	Male	Female		Total	Male	Female
Under 5	0.4	0.5	0.3	55–59	13.5	13.1	13.9
5–9	.5	.7	.3	60–64	13.4	14.2	12.8
10–14	.3	.2	.4	65–69	12.4	13.7	11.3
15–19	.6	.5	.8	70–74	10.5	11.9	9.3
20–24	1.4	1.7	1.1	75–79	5.9	7.3	4.7
25–29	1.7	1.5	1.9	80–84	2.4	2.7	2.2
30–34	2.4	1.7	3.0	85–89	.7	.5	.9
35–39	4.7	3.1	6.1	90 and over	.1	.1	.1
40–44	6.5	5.4	7.3				
45–49	10.1	8.8	11.1	All known ages	100.0	100.0	100.0
50–54	12.5	12.4	12.5				

TABLE 18.—*Percentage site distribution of cancer cases first seen in 1937, Allegheny County, Pa.*

Primary site	Percent of cases in each site group			Primary site	Percent of cases in each site group		
	Total	Male	Female		Total	Male	Female
Buccal cavity	5.8	9.6	2.8	Brain	1.9	3.0	1.1
Digestive tract	28.3	38.5	19.9	Bones (except jaw)	1.9	2.3	1.5
Respiratory system	4.6	8.2	1.6	All other sites	6.7	6.7	6.7
Genitourinary system	26.0	17.6	32.8				
Breast	13.3	.6	23.7	All sites	100.0	100.0	100.0
Skin (except lip)	11.5	13.5	9.9				

SUMMARY

The third area covered in the sampling survey of cancer incidence in the United States (Pittsburgh and the remainder of Allegheny County, Pa.) reported a total of 6,103 cases either under medical care or observation, or dying of cancer during the year. Of this total, 5,559 were reported by doctors and hospitals as having been seen during the year. There were filed during the year in this area 1,744 death certificates that listed cancer as a cause of death. The ratio of all resident cases seen in 1937 to resident deaths was 2.9 to 1. This is higher than the Chicago ratio (2.6 to 1) but considerably below the ratio found for Atlanta (5.3 to 1). This ratio indicates a case rate of at least 319 per 100,000.

The error in this survey is on the side of underreporting, and so the figures establish a minimum prevalence, somewhere below the true figure. The maximum of underreporting is probably about 34 percent (the percentage of resident deaths that were unreported). The actual underreporting of cases under treatment is probably considerably less than this, but cases under observation only tend to be reported much less completely.

Over 50 percent of the cases were reported by only 0.3 percent of the doctors and 16 percent of the hospitals. On the other hand,

about half of the doctors and hospitals saw no cases of cancer during the year.

Thirty percent of the cases were reported by more than one source, many of them by three or more sources. Because identifying information had been collected, it was possible to eliminate all duplication. The extent of duplication varies greatly between white and colored cases, being higher among white cases, and also varies with the site involved.

The diagnosis was confirmed by microscopic examination in 62 percent of the cases reported. The use of tissue examinations varied with the accessibility of the site involved.

The three most important primary sites among males were digestive tract, genitourinary system, and skin; for females, genitourinary system, breast, and digestive tract. Malignant neoplasms of these sites constituted 70 percent of the cases among males and 79 percent of those among females.

Very great differences exist in the relative fatality of malignant growths occurring in various sites. The brain, digestive tract, and respiratory system are the sites with the lowest ratio of cases to deaths.

Eighteen percent of all the cases reported were under 45 years of age. The median age was 57 years; it was 59 for males and 56 for females. The cases among males tend to be concentrated in the older ages considerably more than do those among females. This results from the fact that two-thirds of the malignant growths of the breast and genitourinary system among females occur in the age group 45 to 70.

Study of the duration of the cases revealed that 42 percent of all cases reported had a duration of less than 6 months. Fifty-nine percent of the dead cases had been first diagnosed as malignant less than 6 months before death and 80 percent of them less than 12 months before death. Five percent of the total cases reported had a duration of 5 years or over. The duration varied widely among the different sites. Cases of malignant growths of the brain and respiratory system had the shortest duration and those of the breast, skin, and buccal cavity, the longest duration.

There were 836 cases under observation in 1937 which had not been treated since sometime prior to January 1, 1937. Over three-fourths of these cases were neoplasms primary in the genitourinary system, breast, skin, or buccal cavity. The cases under observation only represent 15 percent of all cases reported. Of all the cases under medical care on January 1, 1937, 39 percent were under observation only and received no treatment during 1937.

In 1937 there were 3,423 new cases, 45 percent of these being among males; white male cases constituted only 42 percent of all cases reported. The cases first seen in 1937 present much the same

distributions as do all cases reported. The chief differences are that the sites with relatively higher fatality and the sites with shorter durations are here represented in somewhat greater proportions.

REFERENCES

(1) Mountin, Joseph W., Dorn, Harold F., and Boone, Bert R.: The incidence of cancer in Atlanta, Ga., and surrounding counties. Pub. Health Rep., 54: 1255–1273 (1939).

(2) Dorn, Harold F.: The incidence of cancer in Cook County, Illinois, 1937. Pub. Health Rep., 55: 628–650 (1940).

Appendix

The tables given in the Appendix, showing the actual numbers of cases used in certain of the tables appearing in the text, are numbered to correspond with the similar tables in the body of the paper, with the exception of appendix tables 1 and 2, which have no counterpart.

TABLE 1.—*Number of reported cases [1] of cancer by age distribution, with the percentage in or below any age group for all cases reported, by sex, color, and (for whites) residence, Allegheny County, Pa., 1937*

Age group	Percent of cases of known age, in or below any age group (all cases)	Number of cases of cancer reported								
		Total	Total by sex		White				Colored [2]	
					Resident		Nonresident			
			Male	Female	Male	Female	Male	Female	Male	Female
Under 5		17	11	6	7	1	3	5	1	
5–9		22	12	10	6	6	6	4		
10–14	1	16	7	9	4	6	3	3		
15–19	2	33	12	21	7	13	5	8		
20–24	3	64	33	31	19	15	10	14	4	2
25–29	5	100	35	65	22	44	8	20	5	1
30–34	7	130	43	96	30	65	13	30		1
35–39	12	247	70	177	39	122	25	43	6	12
40–44	18	365	119	246	69	158	43	73	7	15
45–49	30	609	215	394	151	283	56	97	8	14
50–54	42	731	284	447	186	305	91	129	7	13
55–59	57	733	300	433	209	324	80	99	11	10
60–64	70	732	329	403	231	297	83	91	15	15
65–69	82	635	299	336	210	262	82	68	7	6
70–74	91	525	258	267	202	205	50	58	6	4
75–79	97	293	157	136	112	101	43	34	2	1
80–84	99	129	62	67	44	57	18	10		
85–89	100	34	15	19	11	14	4	4		1
90 and over	100	6	2	4	2	4				
Unknown		129	50	79	36	58	14	20		1
Total at known age		5,430								
All ages		5,559	2,313	3,246	1,597	2,340	637	810	79	96

[1] Does not include cases from death certificate only.
[2] Included here with residents are 8 nonresident colored cases.

TABLE 2.—*Number of reported cases [1] of cancer by primary site distribution, with the percentage of all cases in each site and number of cases by sex, color, and residence, Allegheny County, Pa., 1937*

Primary site	All cases combined		Number of cases							
			White						Colored	
			All white		Resident [2]		Nonresident		Male	Female
	Percent	Number	Male	Female	Male	Female	Male	Female		
Buccal cavity	6	341	271	63	163	37	108	26	7	----
Digestive tract	24	1,317	736	529	575	428	161	101	37	15
Respiratory system	4	205	160	38	120	32	40	6	5	2
Genitourinary system	27	1,507	394	1,045	294	764	110	281	17	51
Breast	16	916	11	885	7	668	4	217	2	18
Skin	13	709	392	311	256	223	134	88	3	3
Brain	1	73	49	24	28	18	21	6	----	----
Bones	2	94	49	39	31	28	18	11	4	2
All others	7	397	172	216	131	142	41	74	4	5
All sites	100	5,559	2,234	3,150	1,597	2,340	637	810	79	96

[1] Reported cases only, not including death certificate only cases.
[2] Includes 27 cases with residence unknown and color unknown.

TABLE 3.—*Number of cases reported, by reporting source, by sex and color, Allegheny County, Pa., 1937*

Reporting source	Total	Male	Female	White [1]		Colored	
				Male	Female	Male	Female
One doctor only [2]	1,914	693	1,221	683	1,208	10	13
Two doctors only	138	57	81	55	81	2	----
Three (or more) doctors only	12	6	6	6	6	----	----
Doctors only	2,064	756	1,308	744	1,295	12	13
One hospital only	2,015	964	1,051	915	1,002	49	49
Two hospitals only	172	101	71	97	62	4	9
Three (or more) hospitals only	17	11	6	10	5	1	1
Hospitals only	2,204	1,076	1,128	1,022	1,069	54	59
One doctor—one hospital	863	332	531	326	520	6	11
One doctor—two hospitals	119	45	74	43	67	2	7
One doctor—three (or more) hospitals	7	2	5	1	4	1	1
Two doctors—one hospital	222	73	149	70	146	3	3
Two doctors—two hospitals	31	14	17	14	16	----	1
Two doctors—three (or more) hospitals	6	2	4	1	3	1	1
Three doctors—one hospital	37	11	26	11	26	----	----
Three doctors—two hospitals	6	2	4	2	4	----	----
Hospitals and doctors	1,291	481	810	468	786	13	24
Total reported	[3] 5,559	2,313	3,246	2,234	3,150	79	96

[1] Includes 27 cases with color unknown.
[2] 135 doctors who filed joint reports with other doctors were not included in this table. A case reported by either or both of two doctors who filed a joint report is considered as reported by one doctor only (unless reported by some other source).
[3] This figure differs from the total cases by 544, the number of death certificate cases not reported by doctors or hospitals. Data on these were taken from the death certificates.

TABLE 6.—*Distribution of all cases (including reports from death certificates only) by primary site, by sex, color, and (for whites) residence, Allegheny County, Pa., 1937*

Primary site	Total		White						Colored [2]	
			Resident [1]		Nonresident		Total white			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Buccal cavity	283	64	173	38	108	26	281	64	7	----
Digestive tract	928	690	723	567	161	101	884	668	44	22
Respiratory system	180	55	134	45	40	6	174	51	6	4
Genitourinary system	455	1,166	325	831	110	281	435	1,112	20	54
Breast	13	942	7	707	4	217	11	924	2	18
Skin	404	317	267	226	134	88	401	314	3	3
Brain	56	29	35	23	21	6	56	29	----	----
Bones	56	43	34	30	18	11	52	41	4	2
All others	187	230	141	151	41	74	182	225	5	5
All sites	2,567	3,536	1,839	2,618	637	810	2,476	3,428	91	108

[1] Includes 27 cases with residence unknown and color unknown.
[2] Eight nonresident colored cases here included with residents.

TABLE 8.—*Number of cases [1] of cancer by age distribution, by sex, color, and (for whites) residence (including cases obtained from death certificate only), Allegheny County, Pa., 1937*

Age group	Total [1]	Male	Female	White				Colored [2]	
				Resident		Nonresident			
				Male	Female	Male	Female	Male	Female
Under 5	20	13	7	8	2	3	5	2	----
5–9	24	14	10	8	6	6	4	----	----
10–14	16	7	9	4	6	3	3	----	----
15–19	34	12	22	7	14	5	8	----	----
20–24	69	37	32	23	16	10	14	4	2
25–29	102	37	65	24	44	8	20	5	1
30–34	145	48	97	34	66	13	30	1	1
35–39	255	73	182	41	127	25	43	7	12
40–44	384	126	258	75	169	43	73	8	16
45–49	637	229	408	165	296	56	97	8	15
50–54	766	298	468	200	326	91	129	7	13
55–59	801	327	474	236	362	80	99	11	13
60–64	790	357	433	258	325	83	91	16	17
65–69	735	351	384	261	306	82	68	8	10
70–74	604	297	307	239	244	50	58	8	5
75–79	369	192	177	144	142	43	34	5	1
80–84	162	74	88	56	78	18	10	----	----
85–89	51	21	30	16	25	4	4	1	1
90 and over	9	3	6	3	6	----	----	----	----
Age unknown	130	51	79	37	58	14	20	----	1
Known age	5,973	2,516	3,457	1,802	2,560	623	790	91	107
All ages	6,103	2,567	3,536	1,839	2,618	637	810	91	108

[1] Includes all reported cases and all cases from death certificate only.
[2] 8 nonresident colored cases are included with residents.

TABLE 9.—*Total number of cases (including report from death certificate only) by primary site and by age groups, males only, white and colored, resident and non-resident combined, Allegheny County, Pa., 1937*

Age group	Primary site									All sites
	Buccal cavity	Digestive tract	Respiratory system	Genito-urinary system	Breast	Skin	Brain	Bones	All others	
Under 5				2		3	1	2	5	13
5–9		3					9	1	1	14
10–14	1	1					1	2	2	7
15–19	1	1		1		3		3	3	12
20–24	2	6		7		5	3	5	4	37
25–29	1	9	2	6		5	5		9	37
30–34	1	14	2	9	1	7	6	3	5	48
35–39	7	18	6	8	1	28	4		6	73
40–44	11	43	17	15		14	6	3	17	126
45–49	24	98	31	24		23	7	8	19	229
50–54	41	118	29	42	3	43	1	3	18	298
55–59	42	133	30	39		53	4	4	22	327
60–64	46	148	27	58	3	42	4	3	21	357
65–69	41	129	14	86	1	60		6	14	351
70–74	33	108	11	75	1	47		3	19	297
75–79	27	60	6	48	3	41		3	4	192
80–84	2	30	1	20		14			7	74
85–89	7	5		4		3			2	21
90 and over		1		1		1				3
Age unknown	1	8	4	10		17		2	9	51
Known age	287	920	176	445	13	387	56	54	178	2,516
All ages	288	928	180	455	13	404	56	56	187	2,567

TABLE 11.—*Total number of cases (including report from death certificate only) by primary site and by age groups, females only, white and colored, resident and non-resident combined, Allegheny County, Pa., 1937*

Age group	Primary site									All sites
	Buccal cavity	Digestive tract	Respiratory tract	Genito-urinary system	Breast	Skin	Brain	Bones	All others	
Under 5	1			1		1	1	1	2	7
5–9			1			1	4	2	2	10
10–14				1			1	5	2	9
15–19		2	2	6	2	1		3	6	22
20–24	2	2		10	6	3	1	2	6	32
25–29		7		27	12	5	2	2	10	65
30–34		11		44	22	3	2	1	14	97
35–39	2	15	1	88	52	9	2		13	182
40–44	1	30	5	103	90	10	1	4	14	258
45–49	7	58	6	149	139	23	3	3	20	408
50–54	8	63	9	186	132	34	3	5	28	468
55–59	5	87	10	154	151	30	6	3	28	474
60–64	8	91	6	139	115	45	1	5	23	433
65–69	11	108	4	111	95	32	2	3	18	384
70–74	7	86	8	81	62	42		2	19	307
75–79	3	70	1	40	30	24		1	8	177
80–84	3	28	1	12	14	23		1	6	88
85–89	4	14		1	3	6			2	30
90 and over		1		1	1	1			2	6
Age unknown	2	17	1	12	16	24			7	79
Known age	62	673	54	1,154	926	293	29	43	223	3,457
All ages	64	690	55	1,166	942	317	29	43	230	3,536

TABLE 13.—*Cases reported, by duration of case, by color, and by vital status, Allegheny County, Pa., 1937*

Duration of case	Number of cases reported									
	Total			Alive			Dead			Unknown
	Grand total	White [1]	Colored	Total alive	White	Colored	Total dead	White	Colored	Total
1 month or less [2]							420	406	14	
Under 6 months	2,350	2,267	83	1,193	1,162	31	869	824	45	288
6–11 months	1,328	1,293	35	910	890	20	311	297	14	107
12–17 months	588	568	20	446	434	12	130	122	8	12
18–23 months	319	311	8	270	264	6	47	45	2	2
24–29 months	211	203	8	174	168	6	31	29	2	6
30–35 months	126	120	6	107	102	5	17	16	1	2
36–41 months	120	114	6	96	93	3	19	17	2	5
42–47 months	93	90	3	85	82	3	8	8		
48–53 months	70	68	2	62	61	1	6	5	1	2
54–59 months	54	53	1	47	46	1	3	3		4
5 years and over	293	289	4	244	241	3	38	37	1	11
Unknown duration	7	7					7	7		
Total cases	5,559	5,383	176	3,634	3,543	91	1,486	1,410	76	439

[1] 27 cases of unknown color included with white.
[2] Given here for dead cases only.

TABLE 14.—*Number of cases reported, by duration and by primary site, for alive and dead (excluding 439 cases of unknown vital status, and 7 cases of unknown duration), Allegheny County, Pa., 1937*

Primary site and vital status	One month or less	Under 6	6 to 11	12 to 17	18 to 23	24 to 29	30 to 35	36 to 41	42 to 47	48 to 53	54 to 59	60 and over
Buccal cavity:												
Alive	(1)	76	73	32	18	19	17	10	9	9	4	20
Dead	8	27	18	7	4		4	3				
Digestive tract:												
Alive	(1)	261	159	59	31	19	11	9	15	4	9	26
Dead	226	432	100	32	11	9	2	9	1	2		8
Respiratory system:												
Alive	(1)	51	33	6	3	2		1	2			4
Dead	21	50	24	7	1	2	1	2				1
Genitourinary system:												
Alive	(1)	323	235	137	84	58	29	23	24	15	17	58
Dead	86	189	96	43	17	10	6	2	3	3	1	7
Breast:												
Alive	(1)	174	166	79	55	37	28	24	16	23	9	76
Dead	21	56	39	29	7	6	2	3	4	1	2	16
Skin:												
Alive	(1)	197	159	94	57	27	13	20	14	8	4	50
Dead	4	8	8	3	3	1						2
Brain:												
Alive	(1)	14	6		1	1	1		1			
Dead	20	32	3		1							
Bones:												
Alive	(1)	14	17	7	7	1						1
Dead	7	19	9	3	1		1					1
All others:												
Alive	(1)	83	62	32	14	10	8	9	4	3	4	9
Dead	27	56	14	6	2	3	1					3
All sites:												
Alive	(1)	1,193	910	446	270	174	107	96	85	62	47	244
Dead	420	869	311	130	47	31	17	19	8	6	3	38

[1] Less than 1 month listed for dead cases only. This is part of the duration group under 6 months.

TABLE 15.—*Number of cases under observation only during 1937, by months since last treated, by primary site, with total cases reported, Allegheny County, Pa., 1937*

Primary site	Number of cases by months since last treated for all cases observed only during 1937											Total number of reported cases, including treated cases
	Under 12	12–23	24–35	36–47	48–59	60–71	72–83	84–95	96 and over	Unknown	Total	
Buccal cavity	40	25	8	2	3	1				7	86	368
Digestive tract	44	18	5	5	4	1	3	2	5	27	114	1,316
Respiratory system	2									5	7	206
Genitourinary system	111	36	14	14	6	4	4	3	6	17	215	1,513
Breast	77	29	14	16	7	7	5	1	13	24	193	916
Skin (except lip)	92	28	13	6	4	2	1	2	1	13	162	709
Brain			1								1	73
Bones (except jaw)	4									2	6	94
All others	27	8	3	3	1	1				9	52	364
All sites	397	144	58	46	25	16	13	8	25	104	836	5,559

TABLE 17.—*Number of cases of cancer first seen in 1937, by age, sex, color, and (for whites) residence, Allegheny County, Pa.*

Age group	Total cases first seen in 1937		White				Colored[1]	
			Resident		Nonresident			
	Male	Female	Male	Female	Male	Female	Male	Female
Under 5	7	5	5	1	2	4		
5–9	10	5	5	4	5	1		
10–14	4	7	2	5	2	2		
15–19	7	14	3	8	4	6		
20–24	25	20	13	9	8	9	4	2
25–29	23	35	15	23	5	12	3	
30–34	25	55	16	41	9	14		
35–39	46	111	23	74	18	32	5	5
40–44	81	134	45	90	31	38	5	6
45–49	132	202	87	144	38	53	7	5
50–54	186	229	130	153	52	68	4	8
55–59	196	253	136	187	53	60	7	6
60–64	213	234	150	167	52	57	11	10
65–69	205	207	148	158	55	45	2	4
70–74	178	170	143	123	32	43	3	4
75–79	109	86	79	65	30	20		1
80–84	40	41	31	33	9	8		
85–89	8	17	6	11	2	5		1
90 and over	2	1	2	1				
Unknown age	30	61	28	44	11	16		1
All ages	1,536	1,887	1,067	1,341	418	493	51	53

[1] Regardless of residence. All except 5 of these cases are residents.

TABLE 18.—*Number of cases of cancer first seen in 1937, by primary site, sex, color, and (for whites) residence, Allegheny County, Pa.*

Primary site	Total cases first seen in 1937		White				Colored [1]	
			Resident		Nonresident			
	Male	Female	Male	Female	Male	Female	Male	Female
Buccal cavity	147	52	88	31	55	21	4	
Digestive tract	591	376	440	290	122	75	29	11
Respiratory system	126	31	90	23	33	6	3	2
Genitourinary system	271	619	191	425	74	168	6	26
Breast	9	447	5	325	3	113	1	9
Skin (except lip)	208	186	133	128	73	58	2	
Brain	46	20	26	16	20	4		
Bones (except jaw)	35	29	21	20	11	7	3	2
All others	103	127	73	83	27	41	3	3
All sites	1,536	1,887	1,067	1,341	418	493	51	53

[1] Five are nonresidents. The remaining 99 are residents.

PUBLIC HEALTH SERVICE PUBLICATIONS

A List of Publications Issued During the Period January–June 1940

There is printed herewith a list of publications of the United States Public Health Service issued during the period January–June 1940.

The purpose of the publication of this list is to provide a complete and continuing record of Public Health Service publications, for reference use by librarians, scientific workers, and others interested in particular fields of public health work, and not to offer the publications for indiscriminate free public distribution.

Those publications marked with an asterisk (*) can be obtained only by purchase from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices noted.

Periodicals

*Public Health Reports (weekly), January–June, vol. 55, Nos. 1 to 27, pages 1 to 1191. 5 cents a number.

*Venereal Disease Information (monthly), January–June, vol. 21, Nos. 1 to 6, pages 1 to 204. 5 cents a number.

Reprints From the Public Health Reports

2126. Mortality rates and economic status in rural areas. By Harold F. Dorn. January 5, 1940. 9 pages.

2127. The effect of sulfapyridine and sulfanilamide with and without serum in experimental meningococcus infection. By Sara E. Branham. January 5, 1940. 14 pages.

2128. Rocky Mountain spotted fever. Treatment of infected laboratory animals with immune rabbit serum. By Norman H. Topping. January 12, 1940. 6 pages.

2129. Cases and days of illness among males and females with special reference to confinement to bed. Based on 9,000 families visited periodically for 12 months, 1928–31. By Selwyn D. Collins. January 12, 1940. 47 pages.

2130. Epidemic and endemic typhus: Protective value for guinea pigs of vaccines prepared from infected tissues of the developing chick embryo. By Herald R. Cox and E. John Bell. January 19, 1940. 6 pages.

2131. The pathology of poliomyelitis experimentally induced in the eastern cotton rat, *Sigmodon hispidus hispidus*. By R. D. Lillie and Charles Armstrong. January 19, 1940. 4 pages; 4 plates.

2132. *Anopheles walkeri* (Theobald): A wild-caught specimen harboring malarial plasmodia. By F. B. Bang, G. E. Quinby, and T. W. Simpson. January 19, 1940. 2 pages; 1 plate.

2133. Report on market-milk supplies of certain urban communities. January 1, 1938–December 31, 1939. January 19, 1940. 5 pages.

2134. The disabling diseases of childhood. Their characteristics and medical care as observed in 500,000 children in 83 cities canvassed in the National Health Survey, 1935–1936. I. Characteristics and leading causes. By Dorothy F. Holland. January 26, 1940. 22 pages.

2135. Ocular manifestations of ariboflavinosis. By H. D. Kruse, V. P. Sydenstricker, W. H. Sebrell, and H. M. Cleckley. January 26, 1940. 13 pages.

2136. Community economic status and the dental problem of school children. By Henry Klein and Carroll E. Palmer. February 2, 1940. 20 pages.

2137. The disabling diseases of childhood. Their characteristics and medical care as observed in 500,000 children in 83 cities canvassed in the National Health Survey, 1935–1936. II. Medical and nursing care. By Dorothy F. Holland. February 9, 1940. 18 pages.

2138. The bacterial assay of riboflavin in the urine and tissues of normal and depleted dogs and rats. By H. F. Fraser, N. H. Topping, and H. Isbell. February 16, 1940. 10 pages.

2139. A further study of the mode of action of methylcholanthrene on normal tissue cultures. By Wilton R. Earle and Carl Voegtlin. February 23, 1940. 20 pages; 9 plates.

2140. A study of pneumococcus typing serums for the purpose of standardizing a test for potency. By Bernice E. Eddy. March 1, 1940. 15 pages; 1 plate.

2141. Yellow fever. By J. H. Bauer. March 1, 1940. 9 pages.

2142. Studies of sewage purification. XI. The removal of glucose from substrates by activated sludge. By C. C. Ruchhoft, J. F. Kachmar, and W. Allan Moore. March 8, 1940. 30 pages.

*2143. The National Health Survey. Some general findings as to disease, accidents, and impairments in urban areas. By Rollo H. Britten, Selwyn D. Collins, and James S. Fitzgerald. March 15, 1940. 27 pages. 5 cents.

2144. Using tests as a medium for health education. By Mayhew Derryberry and Arthur Weissman. March 22, 1940. 5 pages.

2145. Siphonaptera: Notes on two California species. By Wm. L. Jellison. March 22, 1940. 4 pages.

2146. *Ornithodoros hermsi:* Feeding and molting habits in relation to the acquisition and transmission of relapsing fever spirochetes. By Gordon E. Davis and Mary E. Walker. March 22, 1940. 12 pages.

2147. Attempts to produce tumors in rats by feeding crude wheat germ oil made by prolonged ether extraction. By Harold Blumberg. March 29, 1940. 8 pages.
2148. Factors influencing carcinogenesis with methylcholanthrene. III. The effect of solvents. By Michael B. Shimkin and Howard B. Andervont. March 29, 1940. 9 pages.
2149. Studies of sewage purification. XII. Metabolism of glucose by activated sludge. By C. C. Ruchhoft, J. F. Kachmar, and O. R. Placak. April 5, 1940. 20 pages.
2150. Neglected opportunities for teamwork in county health department practice. By J. O. Dean and Evelyn Flook. April 5, 1940. 10 pages.
2151. Geographical distribution of diphtheria mortality in the United States. By C. C. Dauer. April 12, 1940. 8 pages.
2152. The incidence of cancer in Cook County, Illinois, 1937. By Harold F. Dorn. April 12, 1940. 24 pages.
2153. Tularaemia (rabbit fever). April 19, 1940. 4 pages.
2154. Effect of petroleum ether extract of mouse carcasses on skin tumor production in C57 black mice. By John J. Morton and G. Burroughs Mider. April 19, 1940. 8 pages.
2155. *Bacterium tularense:* Its persistence in the tissues of the argasid ticks *Ornithodoros turicata* and *O. parkeri.* By Gordon E. Davis. April 19, 1940. 5 pages.
2156. Ticks (*Ornithodoros* spp.) in Arizona bat "caves." By Cornelius B. Philip. April 19, 1940. 4 pages.
2157. Studies on trichinosis. VIII. The antigenic phase of trichinosis. By John Bozicevich and Laszlo Detre. April 19, 1940. 10 pages.
2158. A highly virulent strain of Rocky Mountain spotted fever virus isolated in the eastern United States. By Norman H. Topping and R. E. Dyer. April 26, 1940. 4 pages.
2159. Studies on the toxins and antitoxins of *Clostridium perfringens.* By Sarah E. Stewart. May 3, 1940. 23 pages.
2160. Existence and use of hospital facilities among the several States in relation to wealth as expressed by per capita income. By Elliott H. Pennell, Joseph W. Mountin, and Kay Pearson. May 10, 1940. 25 pages.
2161. Duration of illness from specific diseases among 9,000 families, based on Nation-wide periodic canvasses, 1928–31. By Selwyn D. Collins. May 17, 1940. 33 pages.
2162. The determination of V factor in the urine and tissues of normal dogs and of dogs with blacktongue by the use of *Hemophilus parainfluenzae.* By Margaret Pittman and H. F. Fraser. May 24, 1940. 11 pages.
2163. Two new species of Argasidae (Acarina: Ixodoidea). By R. A. Cooley and Glen M. Kohls. May 24, 1940. 9 pages; 1 plate.
2164. Prevalence of poliomyelitis in the United States in 1939. By C. C. Dauer. May 31, 1940. 7 pages.
2165. The course of disabling morbidity among industrial workers, 1921–38. By William M. Gafafer. May 31, 1940. 13 pages.
2166. Studies of sewage purification. XIII. The biology of *Sphaerotilus natans* Kutzing in relation to bulking of activated sludge. By James B. Lackey and Elsie Wattie. May 31, 1940. 13 pages; 3 plates.
2167. Studies in childbirth mortality. I. Puerperal fatality and loss of offspring. By J. Yerushalmy, M. Kramer, and E. M. Gardiner. June 7, 1940. 18 pages.
2168. Leprosy: Vitamin B_1 deficiency and rat leprosy. By L. F. Badger, E. Masunaga, and D. Wolf. June 7, 1940. 14 pages.

2169. Disinsectization of aircraft. By C. L. Williams. June 7, 1940. 6 pages; 2 plates.
2170. Trapping rats on ships. June 14, 1940. 5 pages.
2171. Immunity to the Lansing strain of poliomyelitis as revealed by the protection test in white mice. By V. H. Haas and Charles Armstrong. June 14, 1940. 8 pages; 1 plate.
2172. Studies on trichinosis. XIV. A survey of municipal garbage disposal methods as related to the spread of trichinosis. By Willard H. Wright. June 14, 1940. 9 pages.
2173. Occupational leukoderma. By Louis Schwartz, Edward A. Oliver, and Leon H. Warren. June 21, 1940. 20 pages; 8 plates.
2174. Disabling morbidity among male and female employees in mail-order stores, 1930–34, inclusive. By Hugh P. Brinton and Elizabeth S. Frasier. June 28, 1940. 15 pages.

Supplements to the Public Health Reports

152. The work of the United States Public Health Service. 1940. 82 pages.
158. Studies on codeine addiction. By C. K. Himmelsbach, Howard L. Andrews, Robert H. Felix, Fred W. Oberst, and Lowrey F. Davenport. 1940. 67 pages.
159. Regional differences in the hospitalization and care of patients with mental diseases. By Joseph Zubin and Grace C. Scholz. 1940. 94 pages.
160. The notifiable diseases. Prevalence during 1938 in States. 1940. 13 pages.
161. Ivy and sumac poisoning. 1940. 8 pages; 2 plates.

Public Health Bulletins

247. Chronic manganese poisoning in an ore-crushing mill. By Robert H. Flinn, Paul A. Neal, Warren H. Reinhart, J. M. DallaValle, William B. Fulton, and Allan E. Dooley. 1940. 77 pages; 1 halftone.
249. Skin hazards in American industry. Part III. By Louis Schwartz. 1939. 93 pages; 22 halftones.
250. Pneumoconiosis among mica and pegmatite workers. By Waldemar C. Dreessen, J. M. DallaValle, Thomas I. Edwards, R. R. Sayers, H. F. Easom, and M. F. Trice. 1940. 74 pages; 17 halftones.
252. Cancer mortality in the United States. II. Recorded cancer mortality in geographic sections of the death registration States of 1920, from 1920 to 1935. By Mary Gover. 1940. 74 pages.
253. The relative toxicity of lead and some of its common compounds. By Lawrence T. Fairhall and R. R. Sayers. With a section on pathology by J. W. Miller. 1940. 40 pages; 6 halftones; 1 lithograph.

National Institute of Health Bulletin

173. I. Leprosy: Two strains of acid-fast bacilli isolated from a case of human leprosy. A comparison with other strains of acid-fast organisms with particular reference to the Lleras bacillus. By L. F. Badger, D. W. Patrick, G. L. Fite, and Don Wolfe. II. Leprosy: The pathology of experimental rat leprosy. By G. L. Fite. III. Leprosy: Variations in the virulence of strains of rat leprosy. By L. F. Badger and G. L. Fite. 1940. 83 pages; 8 halftones.

Unnumbered Publications

Index to Public Health Reports, volume 54, part 2, July–December 1939. 29 pages.

National Negro Health Week program. This pamphlet is published annually usually about the middle of March, for community leaders in an effort to suggest ways and means by which interested individuals and organizations may be organized for a concerted and effective attack upon the community's disease problems. Twenty-sixth observance, March 31–April 7, 1940. 16 pages.

National Negro Health Week poster. Twenty-sixth observance. 1940.

National Negro Health Week leaflet. Twenty-sixth observance. 1940. 2 pages.

Annual Report

Annual Report of the Surgeon General of the United States Public Health Service for the fiscal year 1939. 185 pages.

Reprints From Venereal Disease Information

120. Syphilis control. Principles of case finding and case holding. By Helen E. Woods. Vol. 20, December 1939. 6 pages.
121. Progress in venereal disease control during fiscal year 1939. Vol. 20, December 1939. 3 pages.
122. Illegal and unethical practices in the diagnosis and treatment of syphilis and gonorrhea. By Mary S. Edwards and Paul M. Kinsie. Vol. 21, January 1940. 10 pages.
123. An evaluation of the spirochete complement fixation reaction in comparison with the Eagle flocculation and Wassermann procedures. By Paul T. Erickson and Harry Eagle. Vol. 21, February 1940. 7 pages.
124. Serologic consultation service for State and other laboratories. By John A. Kolmer. Vol. 21, February 1940. 4 pages.
125. A mechanical system for record keeping of morbidity, treatment progress, and control of venereal diseases. By Lida J. Usilton. Vol. 21, March 1940. 7 pages.
126. The culture method in the diagnosis of gonorrhea. Presentation of a new medium. By Anne C. Pitts. Vol. 21, March 1940. 8 pages.
127. Address given at the annual meeting of the American Social Hygiene Association, Chicago, February 1, 1940. By Nathan B. Van Etten. Vol. 21, April 1940. 4 pages.
128. Intrastate evaluation study of the performance of serologic tests for syphilis in Georgia, 1939. By E. L. Webb, T. F. Sellers, and L. E. Burney. Vol. 21, April 1940. 5 pages.

Supplement to Venereal Disease Information

7. Syphilis in Mother and Child. 20 pages.

Venereal Disease Folder

6. Are you being played for a sucker? 6 pages.

Venereal Disease Bulletin

93. 20 questions on gonorrhea. 23 pages.

Venereal Disease Posters

7. No home remedy or quack doctor ever cured syphilis or gonorrhea.
8. Syphilis. 100,000 new victims each year.
9. Face the facts about syphilis.

CARE OF THE EYES AND THE PREVENTION OF BLINDNESS [1]

Protection of the Eye.

The eye is one of the most delicate as well as one of the most important organs of the body and nature has sought in numerous ways to safeguard it from injury. The bony frame and socket form a rigid wall around it, and the eyelids and other soft parts cushion it against jarring and injury from all except direct blows. The sensitiveness of the cornea (covering of the visible portion of the eyeball) gives instant notice of the presence of foreign bodies and tears wash away many of the offending particles which constantly get into the sacs formed by the overhanging lids.

Care of the Eyes.

General.—Enough light, properly used, is one of the important factors in the care of the eyes. Shadows as well as glare cause eye strain and must be reduced to a minimum. Resting the eyes for short periods, by closing them or by directing the vision at distant objects, will relieve the strain of continuous close eye work. Material being read is best held near the level of the eye. Tinted glasses are helpful when using the eyes in strong sunlight, but the habit of wearing dark glasses should not be formed.

At birth.—The eyes of the newborn may become infected with germs from the birth canal. Ophthalmia neonatorum, a serious eye infection due to the gonococcus, was at one time a common cause of blindness. Preventive drops, placed in the eyes of babies immediately after birth, have lessened considerably the number of such cases of blindness. In most States these eye drops are supplied by the health departments without cost to physicians and midwives who are required by law to use them on every newborn baby in their care.

During infancy.—In infancy, the eyes should be protected against long exposure to direct light, either sun or artificial. Toys with points and sharp edges may cause serious damage to an infant's eyes.

During childhood.—It has been estimated that 10 percent of children entering school for the first time have uncorrected defects of vision. Since these visual defects interfere with educational progress, it is important that the eyes of the preschool child be examined in time for correcting glasses to be applied, if needed, before the burden of school work is taken up. In every school an effort should be made to provide sufficient light, without glare. This is best accomplished with properly designed and placed windows.

It is important at this stage of life to teach children the danger of rubbing the eyes with dirty hands.

During adolescence.—Since the eyes are used with increasing severity during school life, it is important to reexamine them at intervals as

[1] This material is available in leaflet form and may be obtained by addressing the Surgeon General, U. S. Public Health Service, Washington, D. C.

the pressure of the educational program increases. A minor defect which may have escaped the examiner when a child enters school may become intensified as night study periods are extended.

During middle life.—After the onset of middle life, failing vision is commonly experienced. Ordinarily this is due to natural physical changes in the eye. Reading and other work ordinarily seen best at a distance of about 13 inches must now be viewed at a longer range.

In middle age the eye should never be considered separately from the body as a whole. Failing vision may be the first symptom of some serious bodily disorder which can be detected through a careful physical examination including an eye examination.

In industry.—Certain occupations are particularly hazardous to the eyes. Corrosive solutions may be splashed, or a variety of dangerously abrasive particles may be thrown into the eyes by grinding or chipping tools. Goggles of an approved pattern should be worn by workmen who weld metals, who use high speed grinding tools, or who use mechanical chipping implements.

Cross Eyes.

Cross eyes (squint) is dangerous, as the condition results in one eye doing all the work. This may occur by the use of one eye continuously and nonuse of the other eye, or by the alternating use of each eye. In the first instance, the eye which is not in use becomes weaker and weaker; in the second instance, both eyes may retain their normal vision, but the individual sees with only one eye at a time while the image of the opposite eye is suppressed. In either case, this is nature's effort to prevent double vision, which would be the case if each eye saw equally well at the same time. If untreated, cross eyes invariably leads to monocular (one-eyed) vision.

The average infant may appear to be cross-eyed, but if this squint remains after 1 year, an abnormal condition is present.

In only a few instances may cross eyes be corrected by proper glasses. More frequently, orthoptic training (special exercises of the eye muscles), or surgery, or a combination of both, may be necessary. The earlier a child is placed under treatment for cross eyes, the better the outlook for the child to recover and develop the ability to see equally well with both eyes at the same time (binocular vision with fusion). For the adult, the outlook is not so favorable, but benefit can be obtained.

Some Refractive Errors.

1. *Nearsightedness (myopia).*—In myopia the axis of the eyeball is abnormally long. Such an eye at rest is focused for near objects, whereas the normal eye at rest is focused at infinity. Far objects will be blurred in individuals with nearsightedness.

2. *Farsightedness (hyperopia).*—In this condition the axis of the eyeball is too short. Constant effort of the eye muscles is necessary

to focus for near objects, and this causes eyestrain. Farsightedness more frequently becomes manifest after the age of 40, owing to loss of the accommodative power of the eye.

3. *Astigmatism.*—Astigmatism (blurred image) is caused by an irregularity in the curvature of the cornea.

Wearing Glasses.

Every person who puts on correcting glasses has to pass through a period of vision adjustment. Some time is required for the individual to adapt himself to the change in size, clarity, and position of objects seen, brought about by glasses.

Foreign Bodies in the Eye.

No person who lacks special training should ever attempt to remove a foreign body from the surface of the eyeball. It is safer, pending the arrival of expert attention, to avoid further damage to the eye by covering it with a moist compress of gauze or a clean handkerchief. The eye must not be rubbed and movement of the eyelids and eyeball must be restricted.

Preventive Measures.

1. Periodic eye examinations: Before going to school, at intervals during school life and more frequently as age advances.

2. Prompt treatment by qualified specialists in defects and diseases of the eye.

3. Sight-saving classes—devised to meet the particular needs of those individuals with eye disorders which prevent them from progressing in their school work.

4. Education of the public in the conservation of vision.

5. Cultivation of good eye habits:

Proper reading posture.

Occasional periods of rest during prolonged reading.

Adequate light and avoiding glare.

Avoid reading very fine print and print on poor quality paper.

6. Do not allow children to play with sharp instruments or toys which may cause serious injury to the eyes.

NOTE: For comfortable reading, print should be held below the level of the eyes and from 16 to 18 inches away from the eyes.

Persons Engaged in Eye Work.

1. *Ophthalmologist* and *oculist* are synonymous terms, the former derived from the Greek, and the latter from the Latin. Both terms refer to a physician (M. D.) who specializes in optical defects and diseases and in the surgery of the eye.

2. *Optometrist* is the name applied to the nonmedical practitioner who corrects refractive errors (the need of glasses) and muscular defects of the eye without the aid of drugs or surgery.

3. *Optician* is the name applied to one who grinds glasses, fits them into frames, and adjusts the frames to the face of the wearer.

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

PNEUMOCONIOSIS AMONG MICA AND PEGMATITE WORKERS [1]

A REVIEW

An evaluation of the working environment and study of pneumoconiosis among workmen engaged in the mining, milling, and fabricating of mica, feldspar, quartz, and kaolin is the subject of Public Health Bulletin No. 250. It is a report of an investigation carried out in western North Carolina by the Public Health Service in cooperation with the Division of Industrial Hygiene of the North Carolina State Board of Health. The working environment of 1,138 men and 105 women employed in 14 mines, 9 grinding plants, 3 china clay plants, and 2 mica-fabricating plants, who were the subjects of medical study, was investigated by engineers.

The bulletin contains an appendix by J. M. DallaValle on averaging and weighting of dust exposures and an appendix by J. W. Miller, reporting response of peritoneal tissue to samples of these particular mineral dusts. A description of industrial processes, uses of the minerals, results of engineering and medical studies, brief case reports of nine cases with active or arrested reinfection tuberculosis, and recommendations for the control of the dust hazard are included.

Ten cases of pneumoconiosis were found on examination of 57 men exposed to mica dust generated by grinding hand-sorted mica and mica scrap which contained almost no free silica. The signs and symptoms resembled those of silicosis, but by X-ray the pattern of the lung field markings seemed to differ qualitatively from silicosis, showing fine close-set stippled markings with basal localization and tendency to a coalescence of shadows in some cases. No cases of pneumoconiosis were found among 31 men and 78 women engaged in fabricating sheet mica under conditions that generated approximately 3,000,000 dust particles per cubic foot.

Twenty-three cases of silicosis were found on examination of 741 men exposed to the mixture of dusts. No cases of silicosis were found among workmen whose dust exposure did not exceed 10,000,000 particles per cubic foot for the periods of employment represented.

[1] Public Health Bulletin No. 250, Pneumoconiosis Among Mica and Pegmatite Workers. By Waldemar C. Dreessen, J. M. DallaValle, Thomas I. Edwards, R. R. Sayers, H. F. Easom, and M. F. Trice. Available from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 15 cents per copy.

Although no cases of pneumoconiosis were found among 95 men with kaolin exposure, the data were inadequate to appraise the pneumoconiosis potentialities of this dust because of relatively short employment periods in concentrations exceeding 10,000,000 particles per cubic foot.

Equipment and practices are described which have effectively reduced dust exposure to safe limits in similar operations in other industries.

STAPLETON MARINE HOSPITAL ENLARGED

An extension to the Stapleton, N. Y., Marine Hospital constructed at a cost of more than $1,100,000 and providing 305 additional beds and other facilities was opened and occupied on July 2. A new modern building for this hospital was completed December 11, 1935, at a cost of approximately $2,337,525, providing about 564 beds. The present addition brings the capacity of the hospital to a total of a little more than 1,000 beds, including 149 beds in the old building.

The hospital at Stapleton is now the largest and one of the most modern marine hospitals of the Public Health Service. It provides medical, surgical, psychiatric, and other special professional care annually to more than 50,000 patients, legal beneficiaries of the Service.

There is also a research group at this institution which specializes in the study of methods for the better diagnosis and treatment of venereal diseases. These researches not only guarantee a high standard of serologic and therapeutic technique for the patients at this institution and all other Service beneficiaries, but the results are made available to the entire medical profession.

The care of sick and disabled American merchant seamen by the Federal Government was undertaken at the port of New York soon after the passage of the act of 1798 creating the marine hospitals; but the actual establishment of a United States marine hospital there was delayed until long after other ports of less commercial importance, such as Boston, Chicago, San Francisco, and New Orleans, were provided with such institutions. This was no doubt due to the fact that other organizations were providing hospital and medical care for sailors at that port, and facilities for the care of seamen were readily available by contract.

In 1754 the colonial government of New York established quarantine and imposed a tax on all seamen and passengers entering the port to secure funds for constructing hospital buildings, first on Governors Island, and later on Bedloe Island. The tax thus collected was paid into the "Mariners' Fund," which was administered by the Commissioner of Health of New York City. Some of these funds were subsequently devoted to purposes other than relief for

seamen, and the State legislature in 1831 created a board of trustees to employ the money exclusively for the care of seamen in the New York Hospital and a marine hospital on Staten Island called the Seamen's Retreat. In April 1770, the Marine Society of the City of New York was granted a charter. In addition to certain special functions relating to navigation, the society engaged in many charitable activities. This society was the forerunner of "Sailors' Snug Harbor," which was founded about 1806.

Prior to 1879, beneficiaries of the Marine Hospital Service at the port of New York were cared for at the local hospitals under contract. In that year 11 different hospitals in New York City, Brooklyn, and Jersey City were under contract with the Marine Hospital Service. In the same year the War Department hospital station on Bedloe Island, having been abandoned, was turned over to the Treasury Department for temporary use as a marine hospital, and was so used until 1883, when it became necessary to vacate the island for the erection of the Statue of Liberty.

In the latter year, a lease of the Seamen's Retreat, at Stapleton, Staten Island, was obtained for 2 years from the Marine Society of New York, with the privilege of purchase at a stipulated price during that period, and the patients were transferred there from Bedloe Island. The lease was renewed from time to time until the property was finally purchased by the Government in 1902. It is here that the present United States Marine Hospital is located.

The present reservation contains about 9¾ acres, and is desirably situated for hospital purposes. The grounds have a gentle slope toward the water, providing a delightful vista of New York Harbor.

COURT DECISION ON PUBLIC HEALTH

Statute creating a board of health for a particular county alone held violative of constitution.—(North Carolina Supreme Court; *Sams et al.* v. *Board of County Com'rs of Madison County et al.*, 7 S. E. 2d 540; decided March 20, 1940.) A public-local law, passed by the State legislature in 1931, created for Madison County alone a county board of health. The principal duty of the board was to elect a county physician and quarantine officer, for whom was prescribed the duty of inspecting county institutions and seeing that they were kept in a sanitary condition. The board was also authorized by the act to select a physician to vaccinate against disease.

By the State constitution the legislature was prohibited from passing "any local, private, or special act * * * relating to health, sanitation, and the abatement of nuisances," and it was expressly ordained that any local or special act passed in violation of the pro-

hibition should be void, as power was given the legislature to pass general laws regulating the matters referred to.

The plaintiff instituted an action to enforce the payment to him of the salary of county physician and quarantine officer, to which office he alleged he had been elected by the county board of health as constituted under the provisions of the above-mentioned local law. In holding that the plaintiff's action, based on such law, could not be maintained, the supreme court said that it was apparent that the act was local and that it related to health and sanitation, thus being void because coming within the prohibition of the constitutional provision referred to. "Furthermore," stated the court, "the act is in conflict with the State-wide policy as contemplated by the constitution and established by general laws regulating the composition of county boards of health throughout the State and the election of county physicians." It was also pointed out that validity could not be given to the acts, as de facto officers, of the persons named as members of the county board of health under the local act for the reason that it was found as a fact that the de jure board of health for Madison County, constituted in accordance with the provisions of a general statute and acting as such, had in April 1937 elected another person as county physician and quarantine officer, who performed services and was recognized by the board of county commissioners as such.

DEATHS DURING WEEK ENDED JULY 27, 1940

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

	Week ended July 27, 1940	Corresponding week, 1939
Data from 88 large cities of the United States:		
Total deaths	8,855	7,219
Average for 3 prior years	7,173	
Total deaths, first 30 weeks of year	262,759	258,662
Deaths under 1 year of age	544	432
Average for 3 prior years	486	
Deaths under 1 year of age, first 30 weeks of year	15,126	15,385
Data from industrial insurance companies:		
Policies in force	65,055,294	66,918,398
Number of death claims	11,718	11,747
Death claims per 1,000 policies in force, annual rate	9.4	9.2
Death claims per 1,000 policies, first 30 weeks of year, annual rate	10.0	10.7

PREVALENCE OF DISEASE

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

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED AUGUST 3, 1940

Summary

Current reports indicate little change in the favorable conditions which have obtained so far this year with reference to the 9 important communicable diseases reported weekly to the Public Health Service by the State health authorities. Poliomyelitis, smallpox, and whooping cough show increases as compared with last week, while influenza and measles are higher than during the corresponding week last year and the 5-year (1935–39) median expectancy.

The number of cases of poliomyelitis increased from 136 to 195 as compared with the preceding week, increases being shown in all geographic areas except the Middle Atlantic and Pacific States. The 5-year median for the corresponding week is 210.

Twenty cases of Rocky Mountain spotted fever were reported, of which 6 occurred in western States. Six cases of undulant fever were reported, 2 cases of tularaemia (in Utah), and 46 cases of endemic typhus fever, 12 of which occurred in Alabama and 9 each in Florida, Georgia, and Texas.

For the current week the Bureau of the Census reports 8,763 deaths in 88 major cities, as compared with 8,855 for the preceding week and with a 3-year (1937–39) average of 7,258 for the corresponding week. In connection with the sharp rise during the last 2 weeks in the number of deaths in these cities, due no doubt to excessive temperatures, it is of interest to note that, according to the U. S. Weather Bureau, the severest heat waves throughout the larger part of the United States occur about 30 days after the summer solstice.

Telegraphic morbidity reports from State health officers for the week ended August 3, 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.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended		Median, 1935–39	Week ended		Median, 1935–39	Week ended		Median, 1935–39	Week ended		Median, 1935–39
	Aug. 3, 1940	Aug. 5, 1939		Aug. 3, 1940	Aug. 5, 1939		Aug. 3, 1940	Aug. 5, 1939		Aug. 3, 1940	Aug. 5, 1939	
NEW ENG.												
Maine	0	0	1	------	------	------	44	16	25	0	1	0
New Hampshire	0	0	0	------	------	------	0	3	3	0	0	0
Vermont	0	0	0	------	------	------	10	14	13	0	0	0
Massachusetts	2	2	6	------	------	------	315	128	81	0	0	3
Rhode Island	0	0	0	------	------	------	29	18	7	0	0	0
Connecticut	0	0	1	1	------	------	9	22	18	2	1	0
MID. ATL.												
New York	7	19	20	[1] 4	[1] 2	[1] 1	351	234	261	1	4	9
New Jersey	4	3	3	1	3	1	200	16	73	0	0	0
Pennsylvania	5	24	18	------	------	------	151	40	117	3	3	3
E. NO. CEN.												
Ohio	4	11	11	6	3	3	22	21	79	0	0	3
Indiana [3]	5	7	7	2	------	------	10	2	2	1	0	1
Illinois	12	6	18	6	1	3	93	15	25	0	1	5
Michigan [3]	5	5	7	4	11	------	193	42	68	0	0	1
Wisconsin	0	0	2	8	26	23	285	0	38	1	2	1
W. NO. CEN.												
Minnesota	0	1	2	2	------	1	18	15	18	1	0	0
Iowa	1	1	2	------	------	1	36	31	8	3	0	0
Missouri [3]	0	1	7	------	------	23	3	1	5	0	0	1
North Dakota	1	2	3	------	5	2	1	0	2	0	0	0
South Dakota	4	1	1	------	------	------	3	1	0	0	0	0
Nebraska	0	2	1	------	------	------	6	1	2	0	0	0
Kansas [4]	5	1	2	1	1	1	15	4	7	1	1	1
SO. ATL.												
Delaware [2]	0	0	0	------	------	------	1	0	0	0	0	0
Maryland [2 3]	1	1	4	1	1	1	6	3	13	0	1	1
Dist. of Col. [3]	3	0	4	------	------	------	2	5	5	0	0	1
Virginia [3]	21	27	15	15	16	------	43	35	21	0	0	2
West Virginia [3]	3	1	3	2	6	12	6	8	8	1	1	0
North Carolina [2 4]	9	11	11	------	------	------	26	23	23	1	3	2
South Carolina [4]	3	8	8	116	67	45	19	0	6	1	0	1
Georgia [4]	1	16	16	3	18	------	11	18	0	1	2	2
Florida [4]	4	6	4	------	1	1	6	4	2	0	0	0
E. SO. CEN.												
Kentucky	5	11	3	1	8	1	41	2	5	2	2	2
Tennessee [4]	1	4	6	6	12	6	9	6	7	0	1	1
Alabama [4]	9	22	13	5	15	5	30	1	1	0	1	1
Mississippi [3 4]	2	11	10	------	------	------	------	0	------	2	1	0
W. SO. CEN.												
Arkansas	2	5	5	15	5	5	2	3	3	0	1	0
Louisiana [4]	3	5	9	2	9	10	2	3	3	0	0	0
Oklahoma	2	3	5	9	4	5	1	3	3	0	0	0
Texas [4]	14	21	26	137	23	24	70	34	19	1	5	2
MOUNTAIN												
Montana [3]	6	2	1	------	4	------	17	12	12	1	0	0
Idaho	1	0	0	------	------	1	4	4	4	0	0	0
Wyoming [3]	1	1	0	------	------	------	3	7	3	0	0	0
Colorado [2 3]	7	11	9	------	7	------	5	9	12	0	0	0
New Mexico	0	0	2	------	------	------	14	2	2	0	1	0
Arizona	1	1	1	14	4	5	13	2	2	0	0	0
Utah [3]	0	0	0	------	2	------	19	12	12	0	0	0
PACIFIC												
Washington	1	0	1	------	------	------	7	72	22	0	0	0
Oregon [3]	1	0	1	------	3	8	13	27	15	0	0	0
California [4]	8	19	16	8	6	9	82	177	148	0	1	1
Total	164	272	282	369	263	248	2,246	1,096	1,153	23	33	66
31 weeks	8,535	11,399	13,737	168,338	151,020	141,283	225,925	347,041	347,041	1,079	1,321	4,027

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended August 3, 1940, and comparison with corresponding week of 1939 and 5-year median—Con.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended		Median, 1935–39	Week ended		Median, 1935–39	Week ended		Median, 1935–39	Week ended		Median, 1935–39
	Aug. 3, 1940	Aug. 5, 1939		Aug. 3, 1940	Aug. 5, 1939		Aug. 3, 1940	Aug. 5, 1939		Aug. 3, 1940	Aug. 5, 1939	
NEW ENG.												
Maine	1	0	2	2	30	10	0	0	0	7	2	2
New Hampshire	0	0	0	0	0	1	0	0	0	0	0	0
Vermont	0	0	0	1	1	2	0	0	0	1	2	0
Massachusetts	1	2	2	26	28	35	0	0	0	3	1	2
Rhode Island	0	0	1	0	2	2	0	0	0	0	0	0
Connecticut	0	0	1	6	7	8	0	0	0	6	6	2
MID. ATL.												
New York	2	13	13	73	63	71	0	0	0	11	13	18
New Jersey	0	3	3	27	20	19	0	0	0	5	7	7
Pennsylvania	0	3	2	48	59	75	0	0	0	14	21	21
E. NO. CEN.												
Ohio	13	3	3	72	50	54	0	1	1	8	21	28
Indiana [2]	15	1	1	8	27	19	0	0	0	0	7	7
Illinois	7	4	10	59	40	91	8	7	2	20	27	19
Michigan [3]	8	46	10	57	52	60	1	4	0	4	1	5
Wisconsin	0	0	0	28	38	51	5	0	2	0	3	3
W. NO. CEN.												
Minnesota	2	4	4	11	29	28	1	1	1	1	3	3
Iowa	9	3	2	21	6	18	4	4	3	5	5	4
Missouri [2]	9	0	2	5	5	16	1	0	0	10	28	20
North Dakota	0	0	0	8	3	4	0	0	0	0	0	0
South Dakota	3	0	1	4	7	5	3	2	4	0	0	1
Nebraska	1	6	3	3	4	4	0	2	2	4	0	0
Kansas [4]	23	4	2	15	23	23	0	1	1	7	5	8
SO. ATL.												
Delaware [3]	0	0	0	1	0	0	0	0	0	0	4	2
Maryland [2 3]	0	1	2	8	9	9	0	0	0	4	9	13
Dist. of Col. [2]	0	0	0	1	5	1	0	0	0	0	0	1
Virginia [2]	1	3	3	18	15	9	0	0	0	10	23	23
West Virginia [3]	13	0	0	13	14	14	0	0	0	9	14	14
North Carolina [3 4]	1	2	2	19	17	17	0	0	0	10	13	23
South Carolina [4]	0	17	1	2	1	2	0	0	0	19	14	14
Georgia [4]	0	5	5	8	11	8	0	1	0	29	28	36
Florida [4]	1	1	0	2	10	3	0	0	0	4	3	4
E. SO. CEN.												
Kentucky	6	2	3	17	24	16	0	0	0	8	39	43
Tennessee [4]	1	3	3	8	9	11	4	0	0	12	11	40
Alabama [4]	1	1	1	13	14	9	0	0	0	11	19	19
Mississippi [3 4]	0	1	4	6	10	5	0	0	0	13	13	16
W. SO. CEN.												
Arkansas	1	4	2	3	8	4	0	1	0	31	38	37
Louisiana [3]	11	0	0	5	8	5	0	0	0	16	15	23
Oklahoma	6	0	0	9	8	7	5	0	0	24	19	19
Texas [4]	7	14	4	8	14	21	0	0	0	37	57	70
MOUNTAIN												
Montana [2]	8	0	1	2	4	4	0	0	2	0	1	2
Idaho	4	0	0	3	1	2	0	0	2	0	1	1
Wyoming [2]	0	0	0	1	0	5	0	1	1	0	3	1
Colorado [2 5]	0	1	1	3	17	17	1	0	0	0	2	2
New Mexico	1	1	0	3	4	4	0	2	0	5	2	6
Arizona	0	3	0	3	0	1	0	0	0	0	2	2
Utah [3]	1	0	0	2	7	7	0	0	0	2	1	1
PACIFIC												
Washington	15	1	1	24	4	10	0	0	5	4	2	2
Oregon [2]	3	1	1	6	7	7	1	0	2	2	2	2
California [4]	20	57	19	43	36	50	0	7	7	23	10	13
Total	195	210	210	705	751	927	34	34	52	379	497	582
31 weeks	1,395	1,544	1,544	117,703	115,033	163,175	1,927	8,610	7,847	4,208	6,096	6,813

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended August 3, 1940, and comparison with corresponding week of 1939 and 5-year median—Con.

Division and State	Whooping cough	
	Week ended	
	Aug. 3, 1940	Aug. 5, 1939
NEW ENG.		
Maine	84	37
New Hampshire	0	0
Vermont	35	0
Massachusetts	108	115
Rhode Island	4	11
Connecticut	46	58
MID. ATL.		
New York	311	480
New Jersey	76	261
Pennsylvania	437	523
E. NO. CEN.		
Ohio	467	166
Indiana [3]	17	77
Illinois	181	328
Michigan [3]	272	227
Wisconsin	99	207
W. NO. CEN.		
Minnesota	30	38
Iowa	36	31
Missouri [3]	36	25
North Dakota	3	9
South Dakota	6	1
Nebraska	2	9
Kansas [4]	53	19
SO. ATL.		
Delaware [3]	6	7
Maryland [2 3]	141	62
Dist. of Col. [3]	6	29
Virginia [3]	56	137
West Virginia [3]	27	35
North Carolina [3 4]	111	100
SO. ATL.—continued		
South Carolina [4]	35	19
Georgia [4]	13	58
Florida [4]	2	16
E. SO. CEN.		
Kentucky	71	39
Tennessee [4]	71	59
Alabama [4]	10	29
Mississippi [3 4]	----------	----------
W. SO. CEN.		
Arkansas	11	7
Louisiana [4]	7	102
Oklahoma	25	6
Texas [4]	209	79
MOUNTAIN		
Montana [3]	1	9
Idaho	11	4
Wyoming [3]	5	6
Colorado [3 5]	30	22
New Mexico	34	15
Arizona	17	6
Utah [3]	76	53
PACIFIC		
Washington	59	14
Oregon [3]	19	14
California [4]	317	149
Total	3,673	3,698
31 weeks	100,575	120,862

[1] New York City only.
[2] Rocky Mountain spotted fever, week ended Aug. 3, 1940, 20 cases as follows: Indiana, 2; Missouri, 1; Delaware, 1; Maryland, 4; District of Columbia, 1; Virginia, 2; North Carolina, 3; Montana, 2; Wyoming, 2; Colorado, 1; Oregon, 1.
[3] Period ended earlier than Saturday.
[4] Typhus fever, week ended Aug. 3, 1940, 46 cases as follows: Kansas, 1; North Carolina, 1; South Carolina, 1; Georgia, 9; Florida, 9; Tennessee, 1; Alabama, 12; Mississippi, 1; Louisiana, 1; Texas, 9; California, 1.
[5] Colorado tick fever, week ended Aug. 3, 1940, Colorado, 2 cases.

PLAGUE INFECTION IN RODENT AND FLEAS IN CALIFORNIA AND WYOMING

IN A RODENT AND IN FLEAS FROM RODENTS IN SAN BERNARDINO COUNTY, CALIF.

Under dates of July 24 and 26, 1940, respectively, the Director of Public Health of California reported plague infection proved in one ground squirrel (*C. fisheri*) secured from Big Green Valley, San Bernardino County, Calif., and in a pool of 29 fleas from 17 ground squirrels (*C. fisheri*) from the same location.

IN FLEAS FROM RODENTS IN SUBLETTE COUNTY, WYO.

Under date of July 24, 1940, the Assistant Surgeon in charge of the Public Health Service Plague Suppressive Measures Laboratory, San Francisco, Calif., reported plague infection proved in a pool of 65 fleas from 14 ground squirrels (*C. armatus*) shot July 5, 1940, in territory from a Civilian Conservation Corps camp site to the GP Ranch at Green Lakes in Sublette County, Wyo.

WEEKLY REPORTS FROM CITIES

City reports for week ended July 20, 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 city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Data for 90 cities:											
5-year average	94	25	12	958	295	361	6	357	59	1,374	------
Current week [1]	37	22	9	1,444	241	322	2	320	35	1,110	------
Maine:											
Portland	0	------	0	0	1	1	0	0	0	4	20
New Hampshire:											
Concord	0	------	0	0	0	1	0	0	0	0	12
Manchester	0	------	0	0	0	0	0	0	0	0	13
Nashua	0	------	0	0	0	0	0	0	0	2	7
Vermont:											
Barre	------	------	------	------	------	------	------	------	------	------	------
Burlington	0	------	0	3	0	0	0	0	0	0	9
Rutland	0	------	0	0	0	0	0	0	0	0	12
Massachusetts:											
Boston	1	------	0	80	9	5	0	8	1	56	188
Fall River	0	------	0	27	0	0	0	2	0	3	23
Springfield	0	------	0	23	2	1	0	0	0	3	31
Worcester	0	------	0	128	2	2	0	2	0	5	39
Rhode Island:											
Pawtucket	0	------	0	0	0	0	0	0	0	0	12
Providence	0	------	0	88	2	1	0	1	0	5	52
Connecticut:											
Bridgeport	0	------	0	3	0	0	0	0	1	0	29
Hartford	0	------	0	0	0	0	0	0	0	3	32
New Haven	0	------	0	0	2	4	0	0	1	11	51
New York:											
Buffalo	0	------	0	1	3	7	0	3	0	18	119
New York	3	------	1	270	32	53	0	65	7	87	1,249
Rochester	0	------	0	2	1	0	0	0	0	6	68
Syracuse	0	------	0	0	2	5	0	1	0	4	36
New Jersey:											
Camden	0	------	0	1	2	1	0	0	0	0	25
Newark	0	------	0	87	0	12	0	3	0	20	78
Trenton	0	------	0	0	3	2	0	1	0	0	38
Pennsylvania:											
Philadelphia	0	1	0	123	7	28	0	18	2	29	412
Pittsburgh	1	1	1	2	7	9	0	6	0	17	156
Reading	0	------	0	0	0	0	0	1	0	24	23
Scranton	0	------	------	0	------	0	0	------	0	1	------
Ohio:											
Cincinnati	0	------	0	1	1	5	0	2	0	21	99
Cleveland	1	2	0	5	4	13	0	6	1	35	188
Columbus	1	------	0	1	1	4	0	4	0	17	76
Toledo	0	------	0	1	1	4	0	3	0	7	57
Indiana:											
Anderson	0	------	0	0	0	4	0	0	1	0	11
Fort Wayne	0	------	0	3	2	0	0	1	0	1	22
Indianapolis	1	------	0	1	5	5	0	8	0	11	88
Muncie	0	------	0	0	0	0	0	0	0	0	17
South Bend	0	------	0	0	0	0	0	0	0	0	16
Terre Haute	0	------	0	1	0	0	0	0	0	0	22

[1] Figures for Barre estimated; report not received.

City reports for week ended July 20, 1940—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Illinois:											
Alton	0	------	0	0	0	0	0	0	1	4	8
Chicago	9	2	0	100	16	61	0	50	0	62	634
Elgin	0	------	0	0	1	0	0	0	0	2	8
Moline	0	------	0	0	0	0	0	0	0	0	15
Springfield	0	1	0	0	2	0	0	0	0	0	21
Michigan:											
Detroit	1	------	0	216	13	18	0	11	0	115	242
Flint	0	------	0	9	0	2	0	1	0	0	33
Grand Rapids	0	------	0	7	0	8	0	0	0	25	22
Wisconsin:											
Kenosha	0	------	0	7	0	1	0	0	0	1	2
Madison	0	------	0	14	1	0	0	0	0	5	27
Milwaukee	0	------	0	164	4	5	0	1	0	5	86
Racine	0	------	0	3	0	2	0	0	0	0	12
Superior	0	------	0	11	0	0	0	1	0	0	12
Minnesota:											
Duluth	0	------	0	2	0	1	2	0	0	1	24
Minneapolis	0	------	0	1	1	5	0	1	0	5	84
St. Paul	0	------	0	2	1	2	0	1	0	16	46
Iowa:											
Cedar Rapids	0	------	--------	0	-------	4	0	-------	0	0	--------
Davenport	0	------	--------	0	-------	0	0	-------	0	0	--------
Des Moines	0	------	0	0	0	2	0	0	0	0	23
Sioux City	0	------	--------	0	-------	0	0	-------	0	3	--------
Waterloo	1	------	--------	2	-------	0	0	-------	0	3	--------
Missouri:											
Kansas City	0	------	0	0	2	5	0	3	0	2	83
St. Joseph	0	------	0	0	3	0	0	0	0	0	29
St. Louis	0	------	0	3	6	6	0	6	6	35	191
North Dakota:											
Fargo	0	------	0	0	0	1	0	0	0	0	7
Grand Forks	0	------	--------	0	-------	0	0	-------	0	5	--------
Minot	0	------	0	0	0	0	0	0	0	0	6
South Dakota:											
Aberdeen	0	------	--------	0	-------	0	1	-------	0	2	--------
Sioux Falls	0	------	0	0	0	0	0	0	0	0	5
Nebraska:											
Lincoln	0	------	--------	0	-------	0	0	-------	0	2	--------
Omaha	0	------	0	2	2	2	0	1	0	4	43
Kansas:											
Lawrence	0	------	0	0	0	0	0	0	0	0	1
Topeka	0	------	0	10	0	1	0	0	0	0	14
Wichita	0	1	1	0	1	1	0	0	0	10	22
Delaware:											
Wilmington	0	------	0	0	1	0	0	2	1	9	26
Maryland:											
Baltimore	0	1	0	2	7	6	0	16	0	148	203
Cumberland	0	------	0	0	1	0	0	0	0	0	10
Frederick	0	------	0	0	0	0	0	0	0	0	5
Dist. of Col.:											
Washington	2	------	0	1	6	4	0	6	0	5	129
Virginia:											
Lynchburg	0	------	0	1	1	0	0	1	0	2	10
Norfolk	0	------	0	4	1	3	0	0	0	4	23
Richmond	1	------	0	2	1	2	0	1	0	1	50
Roanoke	0	------	0	10	0	0	0	0	0	4	11
West Virginia:											
Charleston	0	------	0	0	4	0	0	0	0	2	12
Huntington	0	------	--------	0	-------	0	0	-------	0	0	--------
Wheeling	0	------	0	1	0	0	0	0	1	5	21
North Carolina:											
Gastonia	0	------	--------	0	-------	0	0	-------	0	0	--------
Raleigh	0	------	0	0	0	1	0	0	0	2	17
Wilmington	0	------	0	0	1	0	0	0	0	0	14
Winston-Salem	0	------	0	0	0	0	0	0	0	3	11
South Carolina:											
Charleston	0	1	0	1	3	0	0	1	1	0	20
Florence	0	------	0	0	1	0	0	0	0	0	10
Greenville	0	------	0	0	0	0	0	0	0	0	6
Georgia:											
Atlanta	0	------	0	1	5	2	0	6	0	7	67
Brunswick	0	------	0	0	1	0	0	0	0	0	3
Savannah	0	9	0	0	1	1	0	0	0	1	25
Florida:											
Miami	0	------	0	0	1	0	0	2	1	0	28
Tampa	0	------	0	1	1	0	0	1	0	2	15

City reports for week ended July 20, 1940—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Kentucky:											
Ashland	0	------	0	0	0	1	0	0	0	0	9
Covington	0	------	0	0	2	0	0	1	0	2	7
Lexington	1	------	0	13	0	0	0	2	0	1	14
Louisville	0	------	1	1	3	7	0	6	1	38	63
Tennessee:											
Knoxville	0	------	0	0	0	1	0	0	0	0	22
Memphis	0	------	0	6	3	3	0	4	1	17	90
Nashville	0	------	1	1	2	1	0	1	0	7	47
Alabama:											
Birmingham	0	1	3	2	3	1	0	3	2	0	67
Mobile	0	------	0	21	0	0	0	0	0	0	21
Montgomery	0	------	------	0	------	0	0	------	0	0	------
Arkansas:											
Fort Smith	0	------	------	0	------	0	0	------	0	1	------
Little Rock	0	------	0	0	0	0	0	4	0	5	------
Louisiana:											
Lake Charles	1	------	0	0	1	0	0	1	2	0	6
New Orleans	0	------	0	0	11	1	0	7	5	2	149
Shreveport	0	------	0	0	2	0	0	1	0	0	39
Oklahoma:											
Oklahoma City	0	2	0	0	5	2	0	0	0	0	55
Tulsa	0	------	0	3	1	0	0	0	1	8	30
Texas:											
Dallas	0	------	0	11	2	2	0	3	3	13	57
Fort Worth	0	------	0	5	1	0	0	0	0	13	35
Galveston	1	------	0	0	3	0	0	0	0	2	11
Houston	1	------	0	0	3	1	0	6	2	1	84
San Antonio	0	------	0	1	4	0	0	10	0	4	64
Montana:											
Billings	0	------	0	0	1	1	0	1	0	1	10
Great Falls	0	------	0	1	0	1	0	0	0	0	6
Helena	0	------	0	0	0	0	0	0	0	0	6
Missoula	0	------	0	0	1	0	0	0	0	0	6
Idaho:											
Boise	0	------	0	0	0	0	0	0	0	0	6
Colorado:											
Colorado Springs	0	------	0	2	0	2	0	3	0	0	11
Denver	9	------	0	3	2	2	0	4	0	2	73
Pueblo	0	------	0	2	2	0	0	0	0	1	9
New Mexico:											
Albuquerque	0	------	0	0	0	0	0	2	0	2	7
Utah:											
Salt Lake City	0	------	0	23	3	3	0	1	0	50	40
Washington:											
Seattle	0	------	1	3	2	2	0	5	0	10	68
Spokane	0	------	0	1	2	0	0	0	0	0	28
Tacoma	0	------	0	1	1	0	0	3	0	3	28
Oregon:											
Portland	0	------	0	6	1	1	0	1	0	5	56
Salem	0	------	------	0	------	0	0	------	0	0	------
California:											
Los Angeles	5	2	1	4	10	7	0	20	0	66	342
Sacramento	0	------	0	1	1	0	0	3	0	2	28
San Francisco	0	------	0	3	11	1	0	1	0	22	169

City reports for week ended July 20, 1940—Continued

State and city	Meningitis, meningococcus		Poliomyelitis cases
	Cases	Deaths	
Massachusetts:			
Worcester	0	0	1
Rhode Island:			
Pawtucket	1	1	0
New York:			
Buffalo	1	1	2
New York	1	0	0
Pennsylvania:			
Philadelphia	0	0	1
Ohio:			
Cleveland	1	0	0
Indiana:			
Indianapolis	1	0	0
Illinois:			
Springfield	0	0	1
Wisconsin:			
Racine	0	0	1
Nebraska:			
Omaha	0	0	2
Kansas:			
Wichita	0	0	1
Virginia:			
Richmond	0	0	1
Kentucky:			
Lexington	1	0	0
Alabama:			
Birmingham	1	0	0
Oklahoma:			
Oklahoma City	2	0	0
Tulsa	0	0	1
Texas:			
Dallas	0	0	2
Utah:			
Salt Lake City	0	0	2
Washington:			
Tacoma	0	0	6
California:			
Los Angeles	0	0	5
Sacramento	0	0	1

Encephalitis, epidemic or lethargic.—Cases: Newark, 1; Sacramento, 1.
Pellagra.—Cases: Boston, 1; Savannah, 1; San Francisco, 1.
Typhus fever.—Cases: New York, 1; Savannah, 3; Miami, 3; Tampa, 2; New Orleans, 1; Houston, 1; San Antonio, 1.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended June 29, 1940.—During the week ended June 29, 1940, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis		1			1					2
Chickenpox		3		45	204	70	32	11	70	435
Diphtheria				3	4					7
Dysentery					1				1	2
Influenza		12			15			1	10	38
Lethargic encephalitis							1			1
Measles		2	2	61	187	56	140	131	83	662
Mumps				5	79	3	4		5	96
Pneumonia	2	1			17		1		6	27
Poliomyelitis					1					1
Scarlet fever		1		80	45	2	2	13	2	145
Trachoma									25	25
Tuberculosis		1	12	61	32	4		6		116
Typhoid and paratyphoid fever				21	1	1	1	1		25
Whooping cough		3	3	136	91	18	22	12	9	294

JAMAICA

Communicable diseases—4 weeks ended July 6, 1940.—During the 4 weeks ended July 6, 1940, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Chickenpox	1	14	Poliomyelitis		2
Dysentery	7	9	Tuberculosis	37	87
Leprosy		3	Typhoid fever	5	54

SWITZERLAND

Communicable diseases—May 1940.—During the month of May 1940, cases of certain communicable diseases were reported in Switzerland as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	70	Paratyphoid fever	31
Chickenpox	83	Poliomyelitis	11
Diphtheria and croup	37	Scarlet fever	346
German measles	126	Tuberculosis	329
Influenza	11	Typhoid fever	8
Measles	1,140	Whooping cough	111
Mumps	51		

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 July 26, 1940, pages 1367-1370. A similar table will appear in future issues of the PUBLIC HEALTH REPORTS for the last Friday of each month.

Plague

Peru.—During the month of April 1940, plague was reported in Peru, by Departments, as follows: Cajamarca, 5 cases; Lambayeque, 1 case; Libertad, 1 case; Lima, 2 cases, 2 deaths.

United States.—A report of plague infection in San Bernardino County, Calif., and in Sublette County, Wyo., appears on pages 1466 and 1467 of this issue of PUBLIC HEALTH REPORTS.

×