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PLANS FOR HANDLING SPECIAL HEALTH AND OTHER PROBLEMS INCIDENT TO THE ARMY MANEUVERS IN TENNESSEE

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During the month of June 1941, the Second Army held field maneuvers in south central Tennessee, with headquarters in Manchester, Coffee County, approximately midway between Nashville and Chattanooga. The headquarters company and the quarter-master, ordnance, engineers, and other supply and maintenance troops came into the area first, arriving on May 10, 11, and 12, and remained until July 10. The combat troops followed, arriving on May 28, 29, and 30, and left between June 30 and July 3. During the month of June approximately 77,000 officers and men were stationed in the area.

In preparation for the Army maneuvers in Tennessee a conference was held in Atlanta, Ga., on April 14, 1941. Those present at this conference were Dr. L. L. Williams, Jr., of the United States Public Health Service, liaison officer for the Fourth Corps Area; Dr. W. K. Sharp, Jr., Regional Director of District No. 2, United States Public Health Service; Col. P. W. Gibson, Surgeon of the Second Army; Dr. W. C. Williams, Commissioner of Public Health of Tennessee; and Assistant Surgeon General J. W. Mountin of the United States Public Health Service. After Colonel Gibson had outlined plans for the maneuvers, there was a general discussion of the method of handling the special health and other problems involved. It was decided that the Commissioner of Public Health should request the Governor of Tennessee to call a meeting of representatives of the Second Army and the State Commissioners of Health, Safety, Highway, Conservation, and Agriculture for the purpose of discussing a coordinated

program. Under the laws of Tennessee each of the State officials mentioned has some responsibility in administering public health work or related activities.

This meeting, called by Governor Prentice Cooper on April 23, 1941, resulted in the creation of a Coordinating Unit. Dr. G. Foard McGinnes was appointed Coordinator to handle the problems of vice control (including prostitution and venereal disease control), sanitation of food and food-handling establishments, milk sanitation, and general communicable disease control. All personnel assigned to this unit, regardless of the agency by which they were employed, were directly responsible to the Coordinator. Through this unit liaison was established with the highway patrol and with military and civilian authorities.

Headquarters for the Coordinating Unit were established in the office of the Coffee County Health Department at Manchester, Tenn., on May 12, 1941. The office was kept open 24 hours a day with the personnel working in three shifts. In addition to regular telephone service this office had direct connections with the Army headquarters.

The personnel of the unit consisted of the Coordinator, 3 physicians, 3 field nurses, 1 headquarters nurse, 3 clerks, 1 sanitary engineer, 2 sanitation officers, 10 deputy sheriffs, and 2 special State officers. The Department of Conservation detailed to the unit 1 chief hotel and restaurant inspector and 5 field inspectors, and the Department of Agriculture detailed 1 chief milk inspector and 6 milk sanitarians. The State Department of Safety detailed 1 division chief, 5 sergeants, and 30 patrolmen to the area. The United States Public Health Service furnished a trailer laboratory with a technician and assistant, which arrived on May 26, 1941.

The Coordinator met with the local authorities in each of the 10 counties in and surrounding the maneuver area to explain the control program and request their cooperation and support. A meeting was also held with the mayors, health officers, and chiefs of police of the cities of Nashville, Chattanooga, and Knoxville, for the purpose of requesting their cooperation in vice control in the respective cities for the protection of soldiers on week-end leave. The programs for the handling of special problems are given in the following sections.

FOOD AND EATING ESTABLISHMENTS

Personnel of the Department of Conservation, in cooperation with local health authorities, inspected all food and eating establishments in the area prior to the beginning of maneuvers. Those establishments which were allowed to remain open were required to comply

with State and local laws. During the month preceding the maneuvers inspections were made and action taken as follows:

Places inspected and graded	199
Places reinspected and regraded	4
Places reinspected and progress made	94
Places reinspected, all orders complied with	101
Permits revoked or surrendered	11
Court action (warrants)	19

The inspectors also closed or prevented the opening of 23 eating establishments of a temporary type and checked on 184 places (groceries) which did not come directly under their supervision in connection with the serving of food and general sanitation.

During the month when the maneuvers were in progress the following inspections were made and results obtained:

Total calls	3,263
Places regraded and grade raised	14
Places regraded and grade not raised	10
Permits revoked or surrendered (5 of these met requirements	
and reopened)	13
Court action (warrants)	17
Convicted and fined (balance pending)	12
Temporary operations stopped	49

MILK AND OTHER DAIRY PRODUCTS

The personnel of the Department of Conservation, in cooperation with the local authorities, inspected all milk plants, ice cream plants, and establishments of raw milk distributors and producer-distributors supplying milk to pasteurization plants and ice cream plants. A list of all such plants with their grades was furnished to the Chief Surgeon of the Second Army.

All grocery stores, meat markets, soda fountains, and stores dispensing ice cream were also inspected. Only those complying with State and local sanitary laws were allowed to remain open. These establishments were frequently reinspected during the period of the maneuvers.

UNITED STATES PUBLIC HEALTH SERVICE TRAILER LABORATORY

On May 24, 1941, one of the trailer laboratories of the United States Public Health Service was sent to Tennessee from Cincinnati, Ohio, to assist in sanitation activities in the Second Army maneuver area. Manchester was selected as the site of the trailer laboratory because of its central location. The work of the laboratory was confined to bacteriological examinations of milk, ice cream, streams, wet ice boxes, ice cream scoop dishes, and public, semipublic, and private water supplies.

The following is a summary of the analyses made during the month

of June 1941:	Samples examined	Tests performed
Milk samples	259	259
Milk bottles examined to test bottle washing efficiency	. 4	4
Milk samples examined for coliform bacilli	. 15	15
Total milk samples	278	278
Water samples from public water supplies	. 90	180
Water samples for public water treatment plants		126
Dairy and semipublic water supply samples	. 28	56
Stream samples		23
Water samples from restaurant wet coolers	. 11	22
Water samples from ice cream scoop dishes	. 6	6
Total water samples	219	413

In order to study actual conditions and to effect improvements before troops move into an area, a laboratory unit should be on the ground at least a month prior to the maneuvers.

GENERAL SANITATION

The sanitation problems were handled by a sanitary engineer and two sanitation officers of the Coffee County Health Department. The sanitary engineer had general charge of all sanitation, including food and eating establishments, milk, and dairy products. The sanitation officers devoted their full time to emergency sanitation problems, mosquito control, and other reported nuisances.

SAFETY

Just before the field maneuvers began the Director of the Department of Safety, Maj. T. E. Morris, and the Coordinator met with the Adjutant General and the Provost Marshal of the Second Army to work out plans for handling military and civilian traffic. A speed limit of 35 miles per hour was put into effect in the entire maneuver area. When there were movements of large numbers of troops on certain highways, the speed limit was reduced to 15 miles per hour by placing a patrolman at both ends of the highway. At no time, however, were any of the highways closed to the public. The public cooperated very well with the State patrol in carrying out safety measures, as indicated by the fact that only about 30 arrests were made during the entire month and no serious or fatal accident occurred on the highways during the maneuver period.

Since the movements of the various combat divisions were more or less secret, it was found advisable to detail a sergeant and several patrolmen to the Provost Marshal of the Second Army and to each combat division. In this way the sergeant and patrolmen detailed to

each unit carried out safety measures required for the protection of the public on highways during certain secret movements of the troops. They also kept the division chief notified of the highways over which most military traffic would pass, in order that civilian traffic entering these areas could be cautioned to proceed slowly.

In addition to the handling of civilian and military traffic on the highways, the State patrolmen aided in picking up female vagrants on the highways as well as preventing trailers from remaining in the maneuver area. They also reported to the Coordinator any itinerant roadside eating establishments which came to their attention.

THE CONTROL OF PROSTITUTION AND VENEREAL DISEASES

Clinics for the diagnosis and treatment of venereal diseases were operated in the offices of the health departments at Manchester, Tullahoma, Murfreesboro, Winchester, Pelham, and Fayetteville. Special clinics were established in Shelbyville, McMinnville, Woodbury, Lynchburg, and Jasper where there were no full-time health departments. Physicians and nurses especially employed for this program operated these special clinics and aided the local health officers in operating the clinics of the full-time health departments. Laboratory specimens were sent to the central laboratory each evening by messenger and the reports for the previous day were returned by the same messenger.

The control of vice and prostitution.—From May 12 to June 30, 1941, a deputy sheriff was employed on a full-time basis in each of the 10 counties in and surrounding the maneuver area for the purpose of apprehending prostitutes and arresting female vagrants. Two special officers with State and local police authority were employed full-time to supervise and direct the activities of the deputy sheriffs. The deputy sheriffs were required to report daily to the special officers, who in turn reported daily to the Coordinator.

All persons suspected of immoral acts and all female vagrants were arrested and confined in the local jails until examined by a physician from the health department. Those found infected with venereal disease were quarantined and treated for the duration of the maneuvers. Those suspected of being prostitutes and who were found negative on the first examination were held in most instances for a second examination a week later. If found negative on the second examination they were released and sent out of the maneuver area. Those arrested on vagrancy charges who were found negative were fined and if able to pay the fine were escorted out of the area; otherwise they were retained in the workhouse until they had worked out their fines. All known houses of prostitution were closed and the inmates arrested. Tourist camps and "juke joints" (or honky-tonks) were under constant surveillance.

The Second Army and the State highway patrol cooperated in keeping trailers from stopping overnight in the maneuver area. Each officer in the area was on the alert for trailers, and a prize was offered to anyone finding a trailer at night. It is believed that no trailer actually stopped in the area.

During May, 125 prostitutes and vagrants were examined and 93, or 74.4 percent, were found to have either syphilis or gonorrhea or both. Only 63 were examined during June. This drop in the number of prostitutes and vagrants picked up was due to the work done in May and to the publicity given the methods of prostitution control which discouraged such persons from coming to the area during the maneuver period. The results of the examinations are given in table 1.

Table 1.—Results of examination of prostitutes and vagrants arrested in May and June in maneuver area

	Total		Мау		June	
	Number	Percent	Number	Percent	Number	Percent
Total examined	188	100	125	100	63	100
Syphilis Gonorrhea Syphilis and gonorrhea Total infected	58 86 22 122	30. 9 45. 7 11. 7 64. 9	45 63 15 93	36. 0 50. 4 12. 0 74. 4	13 23 7 29	20. 6 36. 5 11. 1 46. 0

During the 2 months 188 prostitutes and vagrants were examined. Of these, 58 (30.9 percent) were found to have syphilis and 86 (45.7 percent) gonorrhea. In all, 122 (64.9 percent) were found infected with at least one of the venereal diseases.

Cases of venereal disease among troops.—During the maneuver period 10 cases of syphilis and 82 cases of gonorrhea were found among troops of the Second Army. Contact histories were obtained and only 2 of the cases of syphilis and 12 of the cases of gonorrhea were traced to sources in the maneuver area. Three cases of syphilis and 32 cases of gonorrhea were believed to have been contracted in Tennessee outside of the maneuver area, while the sources of infection of nearly half the cases (5 of syphilis and 38 of gonorrhea) were thought to have been in areas outside the State. The areas of contact of the reported cases of syphilis and gonorrhea are given in table 2.

Table 2.—Reported cases of syphilis and gonorrhea among troops of Second Army according to area of contact, by color

	Total		White		Colored			
	Sypl	ilis	Gor		Syphilis	Gonor- rhea	Syphilis	Gonor- rhea
Total		10	,	82	. , 7	: 69	8	13
In State maneuver area Outside of maneuver area Out of State		2 3 5		12 32 38	1 2 4	8 31 30	1 1 1	1 8

In order to obtain attack rates, the numbers of days in the area have been estimated for the white and colored troops. Annual attack rates per 1,000 have been calculated and are shown in table 3.

Table 3.—Reported cases of syphilis and gonorrhea among troops of Second Army, with attack rates per 1,000, by color

	(esti-	Days in area (estimated) Average number of days in area (estimated)	8yp	hilis	Gonorrhea		
			of days in area (esti-	Cases	Annual rate	Cases	Annual rate
Total	77,000	2, 537, 500	83.0	10	1.4	82	11.8
WhiteColored	76, 250 750	2, 492, 500 45, 000	32. 7 60. 0	7	1. 0 24. 3	60 13	10. 1 105. 4

On an annual basis the attack rate for syphilis was found to be 1.4 per 1,000, while the rate for gonorrhea was considerably higher, 11.8 per 1,000. The attack rate for the colored troops was higher than for the white troops.

In view of the data given in tables 2 and 3, it is believed that the program instituted and carried out in the maneuver area was reasonably effective in the control of venereal diseases.

HEALTH STATUS OF ADULTS IN THE PRODUCTIVE AGES 1

By DAVID E. HAILMAN, Associate Statistician, United States Public Health Service

When a test of strength seems imminent, individuals or nations hasten to appraise their assets and liabilities. The people of the United States are now preparing for such a test and are therefore taking inventories of their military, financial, industrial, and political powers. But most of all, perhaps, they are concerned with their manpower—not only in terms of numbers but also in terms of physical and mental health.

YOUNG MEN

Of first concern at this time is the health of the young men of this country. The rapid expansion of the armed forces, through voluntary enlistment and compulsory training, will call into service mainly young men between the ages of 20 and 35. An even more rapid expansion of industry will undoubtedly draw heavily upon the reservoir of unemployed men in these age groups.

¹ From the Environmental Sanitation Section of the Division of Public Health Methods, National Institute of Health. Acknowledgment is made to Rollo H. Britten, senior statistician, and James S. Fitzgerald for assistance in the preparation of this report, and to Margaret T. Comstock for much of the statistical tabulation. Assistance in the preparation of the National Health Survey data was furnished by the personnel of Work Projects Administration Official Projects Nos. 712159-658/9999 and 765-23-3-10.

There are two sources, among others, from which valuable data on the health of young men can be obtained: The National Health Survey conducted in 1935-36, and Love and Davenport's study of defects among men drafted during the World War (1917-18).

For adults, health is determined largely by the presence or absence of chronic disease and by the nature and severity of the disease when present; however, acute disabling illness, not associated with chronic disease, is also a factor. The National Health Survey gathered, among other information, data on handicapping chronic diseases and physical impairments whether or not they had caused disability, and on serious disabling illnesses from acute diseases.² In table 1 is given the percentage of adults aged 20 to 65 who fall into 7 groups according to health status, ranging from group a, those who were permanently incapacitated from major chronic disease, to group g, those who had no handicapping chronic disease or serious disabling illness.

If these percentages (for the urban population) are applied to the estimated 16,234,230 young men in 1940 between the ages of 20 and 35 (both urban and rural)³ the following numbers would fall into the 7 groups, listed as in table 1.

		Number of men,
	Group	aged 20-34
	Major chronic disease—disability of 12 months or longer	
b.	Major chronic disease—disability of 3 weeks to 12 months	260, 000
c.	Major chronic disease—disability of less than 3 weeks or no dis-	•
	ability	910, 000
d.	Minor chronic disease—with or without disability	760, 000
e.	No chronic disease—acute illness with disability of 3 weeks to 3	
	months	320, 000
f.	No chronic disease—acute illness with disability of 1 to 3 weeks.	420, 000
g.	No chronic disease—no acute illness with disability of 1 week or	•
	longer	13, 500, 000

It appears from the foregoing estimates that there were in the United States in 1940 about 76,000 men aged 20-34 who are probably permanently incapacitated (group a); 260,000 have major chronic diseases or impairments such as heart disease, high blood pressure, nephritis, rheumatism, or orthopedic impairments, and also have been disabled for such long periods of time during the past year that they have been prevented from or seriously hindered in working, seeking

² The National Health Survey was a house-to-house canvass of about 700,000 families in 83 cities in 18 States, representative generally of the urban population as a whole. About 37,000 families in rural areas were also canvassed, but these were not considered to be sufficiently representative of the rural population of the United States to be included in this article. The survey followed established techniques, information being obtained by trained enumerators from the housewife or other responsible member of the household.

For a more detailed discussion of the scope, method, and general definitions, see Perrott, George St. J., Tibbitts, Clark, and Britten, Rollo H.: The National Health Survey: Scope and method of a Nation-wide canvass of sickness in relation to its social and economic setting. Pub. Health Rep., 54: 1663 (1939). Reprint 2008.

For general rates of illness according to several different measures see Britten, Rollo H., Collins, Selwyn D., and Fitzgerald, James S.: The National Health Survey: Some general findings as to disease, accidents, and impairments in urban areas. Pub. Health Rep., 55: 444 (1940.) Reprint 2143.

⁸ Based on release of U. S. Census Bureau, July 23, 1941 (Series P-3, No. 15).

work, or attending school (group b); another 910,000 men, while not disabled for such long periods of time, are more or less seriously handicapped because of these major chronic diseases and impairments (group c); still another 760,000 men have some noticeable degree of handicap caused by lesser chronic diseases such as hay fever, hernia, hemorrhoids, or sinusitis (group d). (See table 5 and its footnotes for explanation and a more complete list of major and minor chronic diseases.)

Table 1.—Percentage distribution according to health status of men and women aged 20-64, classified in two age groups

[National Health Survey 1935-36] 1

		Age (years)	
Health status of men and women who—	Men		Women	
•	20-34	35-64	20-34	35-64
a. Have 1 or more major chronic diseases or serious impairments and have been disabled 2 for the entire past 12 months (living at home, not in institutions)	0.47	1.7	0.46	1.2
b. Have 1 or more major chronic diseases or serious impairments and have been disabled for 3 weeks (from illnesses lasting 1 week or more) but less than 12 months during the past year 3	1.6	2.8	3.1	4.8
been disabled for less than 3 weeks during the past year, or have not been disabled	5. 6	12.1	6.3	15.4
d. Have no major chronic disease or serious impairment but have 1 or 2 minor chronic diseases, with or without disability 4. e. Have no chronic disease or serious impairment but have had one or	4.7	7.0	5.4	7.2
e. Have no circular disease or serious impairment but nave had one or more acute illnesses (from disease, accident, or confinement) which have disabled for 3 weeks to 3 months ³ (from illnesses lasting 1 week or more) during the past year. f. Have no chronic disease or serious impairment but have had 1 or more acute illnesses (from disease, accident, or confinement)	2.0	2.1	6.6	3.6
which have disabled for 1 to 3 weeks (from illnesses lasting 1 week or more) during the past year	2.6	1.7	6.1	3.4
g. Have no chronic disease and no acute illness which has disabled for 1 week or more during the past year	83. 0	72.6	72.0	64.4
Total	100.0	100.0	100.0	100.0

¹ Data based on a 0.5 percent random sample of 1,530,832 white and colored persons aged 20-64 years enumerated in the National Health Survey, distributed by age and sex as follows—Male: 20-34 years, 298,096; 35-64 years, 351,449. Female: 20-34 years, 430,344; 35-64 years, 450,943.
² "Chronic" refers to illnesses the disease symptoms of which had been noticed for at least 3 months before the day of the visit. All other illnesses are classified as "acute."
For a list of the most important major chronic diseases and impairments see table 5. The division into major and minor chronic disease is based largely upon the proportion of disabling cases among all recorded cases of a particular disease or disease group.

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Disability is defined as inability to work, attend school, care for home, or carry on other usual pursuits by reason of disease, accident, or physical or mental impairment.

This group, b, also includes persons with 3 or more chronic diseases, regardless of disability; and workers disabled less than 12 months, but reported as "unemployable," that is, prevented from working or seeking work by reason of severe chronic disease or incapacitating impairment.

For a list of the most important minor chronic diseases see table 5.

Thus it seems that there is a minimum 4 of 2,000,000 young men (aged 20 to 34) who have a handicapping chronic disease or impairment (groups a, b, c, and d). There are an additional 740,000 young men, as a minimum, who do not, to their knowledge, have any handicapping chronic disease, but each of whom has had during the past

Because of the known impossibility of complete enumeration of illness and chronic disease, this estimate and those to follow are to be considered as minimum. However, it is probable that there was more complete enumeration of illness and disease among women, since the housewife, who was usually the family informant, tended to report more fully for herself than for other members of the family.

year one or more illnesses lasting 7 days or longer caused by acute disease.

General physical examinations, not undertaken by the Health Survey, can be expected to reveal many more physical and mental impairments or defects, particularly those of a minor or incipient nature.⁵ Many of these minor defects may be the precursors of actual chronic ailments but they have not as yet become recognized chronic diseases of a handicapping nature, such as reported in the Health Survey.

The results obtained from physical examinations for a special purpose can be expected to differ from those obtained from general examinations and from house-to-house canvasses, such as the National Health Survey. The physical examinations given by the draft boards during the World War had the very special purpose of selecting young men for service in the armed forces. However, a study by Love and Davenport based upon the results of these special physical examinations gives valuable data, in general, as to the extent, nature, and severity of defects found among men in these ages, 21–30 years—data which are comparable in certain ways to the National Health Survey findings.

Approximately 10,000,000 men between the ages of 21 and 31 were registered for the draft. Not all of the men were given physical examinations; but of those who were,⁷ the "second million" (967,486 men, a sample chosen from those sent to camp after May 1, 1918) represents the best group for the purpose of this study, since the examination procedure had been clarified and improved for these men. (In order to furnish a complete picture of the prevalence of defects among young men, it has been necessary to include with the sample "second million" a proportionate number of the 549,099 men rejected and the 299,456 men placed in a remediable and limited service group by the local boards and never sent to camp; each of these men, of course, had one or more defects.)

Among these drafted men ("second million" plus a proportion of local board rejected and limited service groups), it is estimated that 52.1 percent had one or more defects, distributed as follows: 20.9 percent were accepted for general military duty, 9.9 percent were ac-

⁵ See Sydenstricker, Edgar, and Britten, Rollo H.: The physical impairments of adult life. Am. J. Hyg., 11:73-135 (January 1930).

⁶ Love, Albert B., and Davenport, Charles B.: Defects found in drafted men. War Department, U. S. Government Printing Office, 1920.

⁷ The physical examinations were made by about 4,648 local boards with more than that number of examining physicians. Many of the men were also examined by medical advisory boards, with a total number of 9,577 examining physicians. In addition, they were examined by thousands of medical officers at the various Army cantonments, camps, and posts.

cepted for limited service only, and 21.3 percent were rejected for any duty.8

In connection with defects among the rejected men, the authors state, "Many of the defects noted are obviously noteworthy only from a military standpoint * * * . A large proportion of the mechanical are no serious handicap in civil life. Also, many defects of the defects of sense organs found are easily capable of correction so as to fit a man to perform his duties in civil life. Altogether, it is clear that fully half of the defects found are not of such a nature as to interfere seriously with the man performing services of the highest order in civil life." If 21 percent of the men ("second million" plus a proportion of local board rejected and limited service groups) were rejected and if half of those rejected had no defects which were seriously handicapping in civil employment, then another half, or almost 11 percent of the total, did have such handicapping defects. In this connection, data from the National Health Survey show that about 12 percent of men aged 20-34, living in urban communities, were reported to have chronic diseases or physical impairments of a handicapping nature (groups a, b, c, and d, table 1).

Employment status.—It has been suggested earlier in this paper that, if present trends continue, unemployed young men will rapidly find places in industry or in the armed forces. What is the health of unemployed young men when contrasted with that of the employed? Data from the National Health Survey give some basis of comparison (table 2).

The percentages falling into each health status group (a, b, c, etc.) are not widely different for the employed and for the unemployed. Furthermore, the high percentage (92) of unemployed young men falling into groups d, e, f, and g would indicate that the majority of unemployed young men can take their places in industry or in the armed forces alongside the employed, if given the opportunity.

One fact worth noting, however, is the higher proportion of unemployed than of employed men with disabling chronic diseases, especially those with the longer periods of disability (group b). This relatively high rate of disabling illness from chronic diseases among unemployed young men is borne out by other data from the National Health Survey.

⁵ For a more complete description of the statistical methods used in making the estimates, see Britten, Rollo H., and Perrott, George St. J.: Summary of physical findings on men drafted in the World War. Pub. Health Rep., 56: 41 (Jan. 10, 1941).

Illness among employed and unemployed workers. Preliminary Reports, The National Health Survey, Sickness and Medical Care Series. Bull. No. 7 (1938).

Hailman, David E.: The prevalence of disabling illness among male and female workers and housewives. Pub. Health Bull. No. 260, U. S. Government Printing Office, 1941.

Figures in table 2 also indicate that young men in school (including those 15-19 years of age) have only a slightly better health status than workers, either employed or unemployed.

TABLE 2.—Percentage distribution according to health status of men aged 20-34, classified by employment status

[National Health Survey 1935-36]

Health status of men who—	Em- ployed	Unem- ployed	In school?
a. Have 1 or more major chronic diseases or serious impairments and have been disabled for the entire past 12 months 3.			
b. Have 1 or more major chronic diseases or serious impairments and have been disabled for 3 weeks (from illnesses lasting 1 week or more) but less than 12 months during the past year 4. c. Have 1 or 2 major chronic diseases or serious impairments and have been disabled for less than 3 weeks during the past year, or have not been	1.1	2.6	1.0
disabled	5.4	5.4	3. 5
 d. Have no major chronic disease or serious impairment but have 1 or 2 minor chronic diseases, with or without disability . e. Have no chronic disease or serious impairment but have had 1 or more acute illnesses (from disease or accident) which have disabled for 3 	5.0	3. 5	4.0
weeks to 3 months (from illnesses lasting 1 week or more) during the past year. f. Have no chronic disease or serious impairment but have had 1 or more acute illnesses (from disease or accident) which have disabled for 1	2.0	2.2	2.0
to 3 weeks (from illnesses lasting 1 week or more) during the past	2.7	2.6	4.3
g. Have no chronic disease and no acute illness which has disabled for 1 week or more during the past year	83.8	83. 7	85. 3
Total	100.0	100. 0	100. 0

Data based on a 0.5 percent random sample of 298,096 white and colored males aged 20-34 years enumer-That bases on a 0.9 percent random sample of 20,000 white and colored males aged 20-34 years enumerated in the National Health Survey.

Includes boys 15-19 years of age in order to get a sufficient sample.

This group is not considered to be in the labor market and is therefore not included in this table.

Chronic' refers to filnesses the disease symptoms of which had been noticed for at least 3 months before the day of the visit. All other illnesses are classified as "acute."

MEN AGED 35-64

So far as the immediate future can be foreseen, it is improbable that men between 35 and 65 years of age will be called upon to serve in the armed forces of the United States, but the situation with regard to industrial employment is different, since the speeding-up of the industrial program may in the future mean that all able-bodied men up to 65 years of age will be needed. The health of these men is therefore of great importance to the national security.

If the percentages given in table 1 are applied to the estimated 22,581,585 men between the ages of 35 and 65 in 1940 (see footnote 3). the following numbers would be found in the 7 groups:

For a list of the most important major chronic diseases and impairments see table 5. The division into major and minor chronic disease is based largely upon the proportion of disabling cases among all recorded cases of a particular disease or disease group.

Disability is defined as inability to work, attend school, care for home, or carry on other usual pursuits by reason of disease, accident, or physical or mental impairment.

For a list of the most important minor chronic diseases see table 5.

	Group	Number of men, aged 35-84
a.	Major chronic disease—disability of 12 months or longer	380, 000
b.	Major chronic disease—disability of 3 weeks to 12 months	630, 000
c.	Major chronic disease—disability of less than 3 weeks or no dis-	
	ability	2, 730, 000
d.	Minor chronic disease—with or without disability	1, 580, 000
θ.	No chronic disease—acute illness with disability of 3 weeks to 3	•
	months	470, 000
f.	No chronic disease—acute illness with disability of 1 to 3 weeks_	380, 000
g.	No chronic disease—no acute illness with disability of 1 week or	
_	longer	16, 400, 000

Thus, it is estimated that in the United States in 1940 there were about 380,000 men aged 35-64 who are probably permanently incapacitated (group a): 630,000 who have major chronic diseases and have been disabled for such long periods of time during the past year that they have been prevented from or seriously hindered in working, seeking work, or pursuing other usual activities (group b); another 2.730.000 who, while not disabled for such long periods, are more or less seriously handicapped in pursuing their usual activities because of these major chronic diseases (group c); still another 1,580,000 who have some noticeable degree of impairment from less serious chronic diseases (group d); and an additional 850,000 men in these ages who do not, to their knowledge, have any chronic diseases, but each of whom had in the past year one or more illnesses of 7 days or longer duration caused by an acute disease or accident (groups e and f). Many more men with incipient or borderline chronic disease would be found in this age group if general physical examinations were to be given.

Employment status.—For young men it was found that health status, according to the measures used, is not widely different among the employed and the unemployed, except that a small proportion of the unemployed have a relatively high rate of disabling illness of long duration from major chronic diseases and impairments. Among men 35–64, however, there are greater differences between the employed and the unemployed with respect to health.

There is among the unemployed men in these ages a relatively high concentration of men with chronic diseases and impairments, both major and minor, with varying degrees of disability (groups b, c, and d). Indeed 30 percent of these unemployed men are handicapped by chronic disease or impairments of varying severity (table 3).

TABLE 3.—Percentage distribution according to bealth status of men aged 35-64, classified by employment status

[National Health Survey 1985-36]

Health status of men who—	Em- ployed	Unem- ployed
a. Have 1 or more major chronic diseases or serious impairments and have been dis-	·	
abled for the entire past 12 months ² . b. Have 1 or more major chronic diseases or serious impairments and have been disabled for 3 weeks (from illnesses lasting 1 week or more) but less than 12 months		
during the pest year 2. . Have 1 or 2 major chronic diseases or serious impairments and have been disabled	1.7	4.1
for less than 3 weeks during the past year, or have not been disabled	10.8	17. 8
diseases, with or without disability 4. Have no chronic disease or serious impairment but have had 1 or more acute ill-	7.1	7. 6
nesses (from disease or accident) which have disabled for 8 weeks to 3 months s (from illnesses lasting 1 week or more) during the past year. Have no chronic disease or serious impairment but have had 1 or more acute ill-	2.1	2.5
nesses (from disease or accident) which have disabled for 1 to 3 weeks (from ill- nesses lasting 1 week or more) during the past year . Have no chronic disease and no acute illness which has disabled for 1 week or more	1.8	1. 5
during the past year	76. 5	66. 6
Total	100.0	100. (

1 Data based on a 0.5 percent random sample of 351,449 white and colored males aged 35-64 years enumerated in the National Health Survey.

2 This group is not considered to be in the labor market and is therefore not included in this table.

3 "Chronic" refers to illnesses the disease symptoms of which had been noticed for at least 3 months be fore the day of the visit. All other illnesses are classified as "acute."

For a list of the most important major chronic diseases and impairments see table 5. The division into major and minor chronic disease is based largely upon the proportion of disabling cases among all recorded cases of a particular disease of a disease from. Disability is defined as inability to work, attend school, care for home, or carry on other usual pursuits by feason of disease, accident, or physical or mental impairment.

4 For a list of the most important minor chronic diseases see table 5.

WOMEN

During the World War, when man power was at a premium, there was a large movement of women from the home to the factory and In the present emergency it is probable that as industry expands many more women will seek jobs and will be needed for them. These will be mainly young women, but some older women undoubtedly will enter industry, especially in jobs for which they have already This speeding-up of military and industrial preparedbeen trained. ness certainly will place added responsibilities and work upon the women who remain at home. It is important then to know the health of all women in the productive ages, whether they be workers, potential workers, or housewives.

If the proper percentages given in table 1 (for the urban population) are applied to the estimated (see footnote 3) 16,692,937 women between the ages of 20 and 35 and the 21,743,138 between the ages of 35 and 65 in 1940 (urban and rural), the following numbers would be found in the 7 groups:

Group a. Major chronic disease—disability of 12 months	Number o, women, aged 20–34	Number of women, aged 35-64
or longer	77, 000	260, 000
b. Major chronic disease—disability of 3 weeks to		
12 months	520, 000	1, 040, 000
c. Major chronic disease—disability of less than 3		
weeks or no disability	1, 050, 000	3, 350, 000
d. Minor chronic disease—with or without disability_	900, 000	1, 570, 000
e. No chronic disease—acute illness with disability of		
3 weeks to 3 months	1, 100, 000	780, 000
f. No chronic disease—acute illness with disability of		
1 to 3 weeks	1, 020, 000	740, 000
g. No chronic disease—no acute illness with disability		
of 1 week or longer	12, 000, 000	14, 000, 000

It appears from the foregoing estimates that there were in the United States in 1940 about 77,000 women in the younger ages and 260,000 women in the older ages who are permanently incapacitated (group a): 520,000 young women and 1,040,000 older women who have major chronic diseases (such as cardiovascular-renal diseases, rheumatism, nervous and mental diseases, or cancer and tumors) or impairments and have been disabled for such long periods of time during the past year that they have been prevented from or seriously hindered in working, seeking work, caring for the home, or pursuing other usual activities (group b); another 1,050,000 younger women and 3,350,000 older women who, while not disabled for such long periods of time during the past year, are more or less seriously handicapped because of these major chronic diseases and impairments (group c); and still another 900,000 younger women and 1,570,000 older women who have some noticeable degree of handicap from less serious chronic diseases such as hay fever, hemorrhoids, varicose veins, or diseases of the female genital organs (excluding cancer and tumors) (group d).

Thus, it is estimated that there were in the United States in 1940, as a minimum, 2,500,000 women between the ages of 20 and 35 and 6,200,000 between the ages of 35 and 65 who have one or more handicapping chronic diseases or impairments (groups a, b, c, and d). An additional 2,000,000 women in the younger age group and 1,500,000 in the older age group do not, to their knowledge, have any chronic disease, but each had in the past year one or more illnesses lasting 7 days or longer, caused by acute disease or accident (groups e and f).

Employment status.—As mentioned previously, it is probably true that during the next few months or years women who are now housewives or not gainfully employed will be called upon for new jobs in defense industries and to fill certain of the vacancies left by men called to military service. What is the health of housewives and unemployed women as compared with those who are now employed?

Table 4 shows that unemployed women and housewives in both age groups (20-34 and 35-64) have a less favorable status with regard to health than do employed women, chiefly because of higher rates of chronic disease (groups b, c, and d), but in some part caused by illness from acute disease (groups e and f). These high rates of acute disease among housewives and unemployed women as compared with the employed would be reduced considerably if confinements were excluded, but differences would remain.10

TABLE 4.—Percentage distribution according to health status of women aged 20-64, classified in 2 age groups, by employment status

[National Health Survey 1935-36]

	Age (years)									
Health status of women who—		20	-34	35-64						
	Em- ployed	Unem- ployed	House- wives	In school ²	Em- ployed	Unem- ployed	House- wives			
a. Have 1 or more major chronic diseases or serious impairments and have been disabled for entire past 12 months ¹ b. Have 1 or more major chronic diseases or serious impairments and have been disabled for 3 weeks (from illnesses										
lasting 1 week or more) but less than 12 months during the past year '	1.1	8.7	4.5	0.9	1. 9	6.0	5.0			
abled for less than 3 weeks during the past year, or have not been disabled d. Have no major chronic disease or serious impairment but have 1 or 2 minor	3. 1	6.6	9. 1	2.1	10. 8	16. 3	16. 9			
chronic diseases, with or without dis- ability * •. Have no chronic disease or serious impair- ment but have had 1 or more acute ill-	3. 5	3.7	7. 1	4.5	7. 0	. 7.4	7.6			
nesses (from disease, accident, or confinement) which have disabled for 3 weeks to 3 months 4 (from illnesses lasting 1 week or more) during the past year. f. Have no chronic disease or serious impairment but have had 1 or more acute illnesses (from disease, accident, or confinement) which have disabled for 1 to	24	2.2	. • 10. 5	3. 0	2.2	2. 5	3. 9			
3 weeks (from illnesses lasting 1 week or more) during the past year g. Have no chronic disease and no acute ill- ness which has disabled for 1 week or	2.9	•8.1	18.3	8.0	2.2	1.9	3. 2			
more during the past year	87.0	75.7	60. 5	86.6	75.9	65. 9	63. 4			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0			

Data based on a 0.5 percent random sample of 430,344 white and colored females between the ages of 20-34 years and 450,943 between the ages of 35-64 years enumerated in the National Health Survey.
 Includes girls 15-19 years of age in order to get a sufficient sample.
 This group is not considered to be in the labor market or able to carry on usual housewife duties and is

This group is not considered to be in the isour market or able to carry on usual nousewise duties and is therefore not included in this table.

4 "Chronic" refers to illnesses the disease symptoms of which had been noticed for at least 3 months before the day of the visit. All other illnesses are classified as "acute."

For a list of the most important major chronic diseases and impairments see table 5. The division into major and minor chronic disease is based largely upon the proportion of disabling cases among all recorded

by reason of disease, accident, or physical or mental impairment.

For a list of the most important minor chronic diseases, see table 5.

These rates include a large number of confinements.

¹⁰ For confirmation of some of these comparisons, see article by David E. Hailman listed in footnote 9.

If women who are not gainfully employed now are to be considered for employment, it is important to know that, of the unemployed women 20-34 years of age, 14 percent had a handicapping chronic disease or impairment, and of the unemployed women aged 35-64, 30 percent were so handicapped (groups b, c, and d); of young housewives, 21 percent, and of housewives aged 35-64, 29 percent were so handicapped.

NATURE OF CHRONIC DISEASE

The previous sections have been concerned, in large part, with the presence or absence of chronic disease or impairment and with the nature and severity of the disease when present. This section will present further data on the nature of the diseases found or the diagnoses.

Table 5 shows the prevalence of specified chronic diseases and impairments among men and women in two age groups, 20–34 and 35–64 years.¹¹ (See also footnote 4.) Among young men, orthopedic impairments predominate, followed by rheumatism and allied diseases, hay fever, hernia, cardiovascular-renal diseases, and sinusitis; among older men rheumatism, orthopedic impairments, cardiovascular-renal diseases, and hernia show relatively high rates, followed by hemorrhoids, deafness, hay fever, and asthma.

Among young women there are relatively high rates of rheumatism and cardiovascular-renal diseases, followed by hay fever, goiter, diseases of the female genital organs, sinusitis, hemorrhoids, nervous and mental diseases, and varicose veins. Among older women are found relatively high rates of rheumatism and cardiovascular-renal diseases, followed by varicose veins, hemorrhoids, deafness, hay fever, nervous and mental diseases, goiter, and orthopedic impairments.

Percentage distribution of deaths among persons 20-64 years of age, according to cause, classified in 2 age groups

[United States Census, 1938]

Cause of death	All ages, 20-64	20-34	35-64
All causes	100.0	100.0	100.0
Cardiovascular-renal diseases		13. 2 5. 1	40. 6 15. 8
Canter and violent deaths	12.4	25. 0 19. 5	0.5
Pneumonia (all forms) Other infectious diseases	5. 5 3. 8	6. 5 5. 7	6. 2 5. 8 3. 4 2. 4 2. 6
Nervous and mental diseases	2.5	2.8	2.4 2.6
Rheumatism and allied diseases	15.0	21.1	13. 8

¹¹ The relative importance of certain of these diseases as a cause of death is indicated in the following table:

TABLE 5.—Prevalence (per 1,000 persons) of specified chronic diseases or impairments, disabling and nondisabling, among adults 20-64 years of age, classified by sex in 2 age groups

[National Health Survey 1935-36] 1

Disease or disease group ²		м	ale	Female		
	Total	20-34 years	35-64 years	20-34 years	35-64 years	
Major chronic diseases and impairments:						
Rheumatism and allied diseases	47.5	12.4	62. 2	21.4	84. 2	
Cardiovascular-renal diseases		8.7	49.6	17.0	72. 7	
Orthopedic impairments		20.0	52.4	5.8	14.0	
Deafness	10.6	4.0	18.7	3.6	15. 2	
Asthma		4.6	15.8	4.6	11.0	
Nervous and mental diseases		8.7	9.1	7.1	14. 3	
Gofter and other thyroid diseases	8. 1	1.3	2.6	10.9	14. 2	
Blindness, 1 or both eyes Cancer and other tumors	5. 1	8.0	11.3	1.1	5. 5	
Cancer and other tumors	4.7	.8	2.4	8.9	9. 9	
Gall bladder and liver diseases		.3	3.5	1.9	10. 3	
Diabetes mellitus	4.1	1.0	5.1	.8	8.6	
Ulcer of stomach	2.8	2. 2	6.5	. 9	2.3	
Tuberculosis (all forms)	1.9	1.5	3.1	2.0	1. 2	
Minor chronic diseases:	14.3					
Hay fever		11.6	16. 4	13.8	15.0	
Hernia Varicose veins		10. 6 2. 0	40.7	1.4	6.3	
			9.8	6.6	29.6	
Hemorrhoids Bronchitis	12.4 8.9	4.7 3.4	20.5	7.3 5.5	15.9	
a:	8.3	6.2	13. 1		12. 3	
Diseases of female genital organs	4.9	0. Z	9. 5	7.3	9.6	
To receive of ferriging Remoral Oldania	1.9			9.7	7. 5	

It must be recalled again that these are diseases reported as handicapping by the patient or by the informant for the family and are therefore, in general, of a rather serious nature.

For certain chronic diseases and defects there are unusual difficulties in obtaining complete and accurate information in a house-to-house canvass; among these are tuberculosis, nervous and mental diseases, the venereal diseases, dental defects, malnutrition, pellagra, malaria, and hookworm disease. All of these chronic diseases or defects are widely prevalent among young persons as well as among older persons.

About 75,000 persons die yearly of tuberculosis, of whom 50,000 are in the productive ages, 20-64. Among young persons 20-34, it is the leading disease cause of death (accidents ranking first of all causes). It is estimated that 500,000 persons of all ages are ill from

¹ Data based on a 0.5 percent random sample of cases among 1,530,832 white and colored persons aged 20-64 years enumerated in the National Health Survey, distributed by age and sex as follows—Male: 20-34 years, 286,086; 35-64 years, 450,943.

² The division into major and minor is based largely upon the proportion of disabling cases among all cases of a specified disease or disease group recorded in the National Health Survey. A particular case of a major chronic disease may be relatively mild and a particular case of a minor chronic disease may be relatively

Rheumatism and allied diseases.—Rheumatism, arthritis, gout, neuralgia, neuritis, lumbago, acute rheu-

matic fever, stiff neck, and other muscular pains.

Cardiovascular-renal diseases.—Heart diseases (including diseases of coronary arteries), arteriosclerosis, hypertension, cerebral hemorrhage, nephritis and other kidney diseases, and current paralysis except paresis.

Orthopedic impairments.—Permanent orthopedic impairments, including the loss, crippling, deforming or

Orthopeate impairments.—remainent orthopeate impairments, including the loss, cripping, deforming or paralyzing of any member or part of the body.

Nervous and mental diseases.—Neurasthenia, nervous breakdown, epilepsy, chorea, locomotor ataxia, paresis, insanity, and other diseases of the nervous system.

Cancer and other tumors.—All cancers and other malignant and nonmalignant tumors, regardless of site.

Gall bladder and liver diseases.—Diseases of the gall bladder, biliary passages, and liver.

Ulcer of the stomach and duodenum.

Tuberculosis.—All forms of tuberculosis—respiratory, nonrespiratory, disseminated, and suspected. Varicose veins.—Varicose veins or ulcers, varicocele.

tuberculosis,¹² a prevalence rate of about 4 per 1,000 persons. The great majority of these persons are in the productive ages.

Undoubtedly the prevalence of nervous and mental diseases as reported in the Health Survey (table 5), while great, underestimates the true situation. Because of the difficulties encountered in enumerating such diseases in a house-to-house canvass and because information from other sources is scanty, estimates from any source must be tentative. If Health Survey data, however, are adjusted for underenumeration (and if persons confined to institutions for mental disease are included), a rough figure of 2,000,000 persons with serious nervous and mental diseases is reached—a rate of about 15 per 1,000 persons. The great majority of these are 20–64 years of age and a considerable proportion in the younger ages, 20–34.

The Health Survey did not attempt to enumerate the venereal diseases. The prevalence of gonorrhea in the United States, never known with any certainty, is even more an unknown quantity since the introduction of relatively fast and efficacious chemotherapy. While the outlook for the eventual control of gonorrhea is bright, the prevalence of the disease is still exceedingly high, especially among young men.

There have been various estimates of the prevalence of syphilis in the United States, the most authoritative made in 1938 by the Venereal Disease Division of the United States Public Health Service.¹³ Among persons 20–64 years of age, 10.8 per 1,000 have syphilis, that is, in the language of the authors cited, remain a "potential treatment problem." Among young persons 20–34, the prevalence rate is 8 per 1,000, and among older persons 35–64 it is 12.9 per 1,000.

Observations on the dental needs of adults in these ages are relatively few in number. Studies made by Henry Klein, dental officer in the United States Public Health Service, make available the following findings:

- 1. A group of youths aged 16-24 years working for the National Youth Administration or the Works Progress Administration shows a current need for fillings of about 9 permanent tooth surfaces per youth; a group of youths aged 20-24 years in the Navy shows 3 surfaces needing filling.
- 2. The yearly increment of carious permanent tooth surfaces was found to be 1.3 surfaces decayed per year per NYA-WPA boy, aged 16-24 years, and 1.2 surfaces per Navy youth, aged 20-24 years.
- 3. From these findings it is clear that the current accumulated need for fillings is perhaps almost as closely controlled by the amount,

¹² Whitney, Jessamine S.: High points of attack on tuberculosis. Trans. of the Thirteenth Annual Meeting of the National Tuberculosis Assoc., 1934, p. 151.

¹¹ Vonderlehr, R. A., and Usilton, Lida J.: The chance of acquiring syphilis and the frequency of its disastrous outcome. Ven. Dis. Inf., 19: 396 (November 1938). Reprint 99.

kind, and rate of supply of dental care (fillings) as by the tendency to experience caries.

Hookworm is a disease indigenous primarily to rural coastal plain areas of the Southern States. Recent surveys (1930–38) "show that a substantial reduction has occurred in the incidence of hookworm in each of the (eight) Southern States in the counties studied" since previous surveys (1910–14). However, these States still show high average percentages of persons with hookworm infestation (7.9 to 15.9 percent); one-fourth of these persons had infestations sufficiently severe to produce clinical symptoms. The age group 20–24 years showed higher than average (all ages) infestation, and above 25 years, decreasingly lower average infestation.

The prevalence of pellagra and malaria among adults is not known with any exactitude. That they are still widely prevalent, especially in rural districts in the South, is certain; on the other hand, public health, sanitary, and educational measures, along with a rising cultural level, are reducing their incidence.

SUMMARY

The health of men and women in the productive ages, 20-64, may be measured with data based on the National Health Survey (1935-36) and for men aged 20-34, upon Love and Davenport's study of defects among men drafted for the World War (1917-18).

(1) Health Survey data indicate that there were in the United States in 1940, as a minimum, 16,200,000 men and women in the productive ages, 20–64 (living at home, not in institutions) who have one or more handicapping chronic diseases or serious physical or mental impairments, the symptoms of which have been noticed for 3 months or more. To be added to this figure are an estimated 500,000 persons in these ages in institutions for the care of mental diseases and tuberculosis. Moreover, for certain of these handicapping chronic diseases, there are obvious difficulties in obtaining complete information in a house-to-house canvass such as the Health Survey; notable among these are tuberculosis, nervous and mental diseases, the venereal diseases, pellagra, malaria, and hookworm disease. If all persons 20–64 years with these diseases could be included in the number with handicapping chronic diseases, the total would no doubt be considerably increased.

There are, as a minimum, an additional 5,200,000 adults in these ages who do not, to their knowledge, have any chronic disease but who had one or more acute illnesses disabling from 1 week to 3 months

¹³ Based upon data reported in: Tuberculosis facilities in the United States. J. Am. Med. Assoc., 114: 771 and 1162 (1940).

¹⁴ Keller, Alvin E., Leathers, U. S., and Densen, Paul M.: The results of recent studies of hookworm in eight Southern States. Am. J. Trop. Med., 20: 493 (July 1940).

during the past year. Thus, upwards of 22,000,000 persons in the United States between the ages of 20 and 65 have one or more handicapping chronic diseases or physical impairments, or have had during the past year one or more serious acute illnesses. The remainder of persons in these ages, estimated to be from 50,000,000 to 55,000,000 persons, presumably have better health. They may, however, have lesser impairments not included above, such as defects of vision, enlarged tonsils, or defective or deficient teeth. They may also have incipient chronic diseases which can be revealed only by general physical examinations, or they may have had, during the past year, acute illnesses lasting less than 7 days.

(2) From Health Survey data it is estimated that there were in the United States in 1940, as a minimum, about 800,000 men and women between the ages of 20 and 65 who are more or less permanently incapacitated (excluding those persons living in institutions). They are distributed by age and sex as follows:

Age (years)	Men	Women
20-34	76, 000	77, 000
35-64		260, 000

Almost as incapacitated a group of persons are those who have major chronic diseases and have been disabled for such long periods (3 weeks to 1 year) during the past year that they have been prevented from or seriously hindered in working, seeking work, attending school, caring for the home, or pursuing other usual activities. Included among the major chronic diseases and impairments are cardiovascularrenal diseases, nervous and mental diseases, rheumatism and allied diseases, tuberculosis, orthopedic impairments, blindness, deafness, diabetes, cancer and other tumors, asthma, gall bladder and liver diseases, goiter and other thyroid diseases, and ulcer of the stomach. There are in the United States a minimum of about 2,500,000 of these handicapped persons, distributed by age and sex as follows:

Age (years)	Men	Women			
20-34	260, 000	520, 000			
35_64	630, 000	1. 040. 000			

Another 8,000,000 adults, while not disabled for such long periods of time, are more or less seriously handicapped owing to the presence of these major chronic diseases and impairments. They are distributed by age and sex as follows:

Age (years)	Men	Women			
20-34	910, 000	1, 050, 000			
35-64	2, 730, 000	3, 350, 000			

Almost 5,000,000 adults 20-64 years of age have some noticeable degree of handicap from hay fever, sinusitis, varicose veins, hernia, hemorrhoids, diseases of the female genital organs, and other less

disabling, but nonetheless handicapping, chronic diseases. They are distributed by age and sex as follows:

Age (years)	Men	Women .
20-34	760, 000	900, 000
35-64	1, 580, 000	1, 570, 000

Among adults who have no recognized handicapping chronic diseases or impairments, a minimum of 2,700,000 have had during the past year one or more acute illnesses (from disease or accident) which disabled for a period of from 3 weeks to 3 months. They are distributed by age and sex as follows:

Age (years)	Men	Women			
20-34	320, 000	1, 100, 000			
35-64	 470, 000	780, 000			

Still another 2,600,000 persons who have no recognized handicapping chronic diseases or impairments have had during the previous year one or more acute illnesses (from disease or accident) which disabled them for 1 to 3 weeks at a time. They are distributed by age and sex as follows:

Age (years)	Men	Women		
20-34	 420, 000	1, 020, 000		
35-64	380, 000	740, 000		

(3) Health Survey data lead to the conclusion that the health of the great majority of unemployed young men (aged 20-34) is not far different from that of the employed or that of young men in school. However, a higher proportion of unemployed than employed young men have major chronic diseases and impairments associated with long periods of disability.

For men 35-64 years of age there is a much greater concentration of all chronic diseases and impairments (major and minor, all periods of disability) among the unemployed than among the employed. Thirty percent of men in these ages have a chronic disease.

Unemployed women and housewives in either age group have a less favorable health status than do employed women, chiefly because of higher rates of chronic disease, but in some part caused by illness from acute disease.

(4) The chronic diseases and impairments most prevalent among adults 20-64 years, in descending order of frequency, are:

Men	20-34
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Orthopedic impairments
Rheumatism and allied diseases
Hay fever
Hernia
Cardiovascular-renal diseases
Sinusitis
Hemorrhoids
Asthma
Deafness

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Rheumatism and allied diseases
Cardiovascular-renal diseases
Hay fever
Goiter and other thyroid diseases
Diseases of the female genital organs
Sinusitis
Hemorrhoids
Nervous and mental diseases
Varicose veins

Men 35-64

Rheumatism and allied diseases Orthopedic impairments Cardiovascular-renal diseases Hernia Hemorrhoids Deafness Hay fever Asthma

Bronchitis

Women 35-64

Rheumatism and allied diseases
Cardiovascular-renal diseases
Varicose veins
Hemorrhoids
Deafness
Hay fever
Nervous and mental diseases
Goiter and other thyroid diseases
Orthopedic impairments

A NEW METHOD FOR VIEWING SHEET KODACHROME 1

By Albert A. Stone, R. Donald Reed, and Louis Schwartz, Medical Director,
United States Public Health Service

In the photographic unit of the National Institute of Health, hundreds of transparencies of Kodachrome professional film have been produced during the past two years. Many of these were connected with studies on dermatoses, and therefore were required to show very fine detail. These films have been mounted for lantern slide projection and light box viewing. From selected ones, wash-off relief color prints were made for permanent exhibits. Often the fine detail on the film was lost in the wash-off prints.

Since printing of Kodachrome in color is expensive and time-consuming, often entailing inexactness in color and loss of detail, it was believed that if a technique could be developed for directly mounting Kodachrome film for exhibit purposes, a worth-while economy of time and money could be effected.

Some time ago a series of Kodachrome films was exposed under varying lighting conditions, and in the study of these test films it was observed that one of the transparencies, when placed on a white sheet, made a viewable picture. While this picture was sufficiently clear to show the pathological detail, it was believed that improvement in color values could be achieved with further experiments in exposure, chemical manipulation, and modifications in the material forming the reflective background.

We have now devised a method by which Kodachrome film can be mounted into a viewable picture. This is accomplished by means of accurately controlled lighting and exposure conditions, and backing material of high light-reflective properties. A technique has been developed whereby the density of the Kodachrome film can be reduced to the density necessary for our method of viewing.

From the National Institute of Health.

DESCRIPTION OF METHOD

A fixed focus range finder is used as a means of maintaining a constant subject-camera distance.

Illumination is obtained by a total of 4,000 watts of incandescent light so placed that the subject is evenly illuminated. From data previously obtained with the lens to be used, the optimum exposure for a "thin" transparency is made. In case of doubt, slight underexposure for a "thin" transparency is preferred. When the transparency is received from the developing laboratory, it is placed, emulsion down, against the glossy side of fixed-out Eastman white topographic film and observed for general effect.

If the immediate result is slightly dark, the following chemical treatment is given to the transparency: It is soaked in distilled water at 76° F. for 5 minutes. Then it is placed in a solution, 1 percent by weight, of sodium hydrosulfite. This gradually reduces the density of the dye deposit. At periodic intervals the transparency is removed, rinsed in distilled water, placed against a white background, and checked for effect.

When the desired density is reached, the transparency is thoroughly washed in water and hung to dry. After it is dry, it is ready for mounting, as follows:

The transparency is pressed, emulsion side, to Eastman white topographic fixed-out film. This is placed between a piece of clean glass for the front and another piece of glass or flat material for the back, and bound with cellophane tape. The resultant picture gives satisfactory rendition of skin tones and detail.

Copies and enlargements can be made from this mounting with a process camera, using the factors of exposure described above for taking the original. Enlargements from small transparencies may be made onto sheet Kodachrome with proper filters and resultant transparency processed as described above.

The resulting picture shows no screen or grain, and detail can be studied with a hand magnifying lens.

PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES

September 7-October 4, 1941

The accompanying tables summarize the prevalence of nine important communicable diseases, based on weekly telegraphic reports from State health departments. The reports from each State are published in the Public Health Reports under the section "Prevalence of disease." Table 1 gives the number of cases of poliomyelitis reported by each State in recent weeks of 1941, and table 2 gives the number of cases of nine important communicable diseases,

including poliomyelitis, for the 4-week period ended October 4, 1941, the number reported for the corresponding period in 1940, and the median number for the years 1936-40.

DISEASES ABOVE MEDIAN PREVALENCE

Influenza.—An increase over the preceding 4-week period of approximately 1,000 cases of influenza was reported during the 4 weeks ended October 4. The increases appeared to be largely due to an excess of cases in a few widely scattered States, viz, Texas, South Carolina, Virginia, Wisconsin, Colorado, Arizona, and California. An increase in influenza cases is normally expected at this season of the year, but the current increase for the country as a whole is slightly above that during preceding years. No unusual prevalence was reported from any State in the North Atlantic, West North Central, or East South Central regions and the incidence in those areas was below the seasonal expectancy.

Poliomyelitis.—The number of reported cases of poliomyelitis dropped from 2,370 for the preceding 4-week period to 2,239 for the current 4-week period. The incidence was approximately 80 percent of that recorded during the corresponding period in 1940, but it was more than one and one-fifth times the 1936-40 median incidence for this period. In States in the South Atlantic and East South Central regions, where the current rise of this disease started, the number of cases declined considerably during the current period, but in the North Atlantic regions the highest incidence of the season was reported during the first weeks of the period. In Georgia the number of cases dropped from a peak of 242 for the preceding 4 weeks to 76 for the current period; in Florida, from 44 to 26; in Tennessee from 143 to 119; in Alabama from 291 to 152; and in Kentucky from 73 to 33 cases. New York reported an increase from 255 cases for the preceding 4 weeks to 424 cases for the 4 weeks ended October 4: New Jersey an increase from 103 to 119; and Connecticut from 25 to 53. Pennsylvania reported 250 cases as compared with 258 for the preceding 4 weeks.

The 1940 epidemic of poliomyelitis was confined largely to the North Central and South Atlantic regions. The North Central regions, especially the West North Central States, have been little affected by the current outbreak. The first increase of cases during the present year was reported from States in the South Atlantic region. In the West South Central, Mountain, and Pacific regions the incidence was considerably below the normal seasonal expectancy; there has been no serious outbreak of this disease in the West South Central region since 1937 and none in the Mountain and Pacific regions since 1934.

The accompanying table gives the number of cases of poliomyelitis reported by weeks in each State since the beginning of the current outbreak. Starting in Florida the disease spread into Georgia and

then into the East South Central States but did not reach other States in the South Atlantic and the North Atlantic regions until about the middle of August. In preceding years a sharp decline in the incidence of this disease has usually occurred during the period following the one now under consideration. For the weeks ended October 11 and October 18 (the latest reports available) there were 429 and 312 cases reported.

Table 1.—Poliomyelitis cases reported in each State during recent weeks of 1941

							w	eek	ende	d—						
Division and State	June 21	June 28	July 6	July 12	July 19	July 26	Aug. 2	Aug. 9	Aug. 16	Aug. 23	Aug. 30	Sept. 6	Sept. 13	Sept. 20	Sept. 27	Oct. 4
United States	67	79	82	187	246	302	326	422	549	611	624	586	595	596	592	456
New England: Maine. New Hampshire. Vermont. Massachusetts. Rhode Island. Connecticut. Middle Atlantic:	0 1 0 0	00000	000000	00000	000000	0 0 0 2 0 2	4 0 0 5 1 6	0 1 1 4 0 1	0 0 2 11 2 7	2 0 0 8 4 7	4 2 3 21 5 5	2 1 0 18 0 6	3 7 1 16 2 19	0 3 1 20 3 10	5 0 0 15 1 12	7 2 1 10 1 12
New York	1	4 0 1	3 1 4	2 0 7	6 5 6	11 2 8	12 5 15	30 13 17	49 17 45	66 25 82	69 29 65	71 32 66	109 41 63	113 27 70	115 29 66	87 22 51
Ohio Indiana Illinois Michigan Wisconsin	3 0 7 1	0 0 0 0	1 0 5 0	3 1 9 3 0	0 2 5 6 0	11 8 4 7 0	16 5 13 8 3	27 12 8 10 1	37 5 18 16 5	44 7 23 6 2	36 6 31 26 3	33 4 21 7 6	35 7 25 20 6	34 16 25 20 1	42 10 31 26 8	32 1 18 19 2
West North Central: Minnesota	2 0 0 0 1 0	1 0 0 0 0 0	2 0 0 0 0 0	6 2 1 0 2 0 0	1 4 0 1 1 0 0	5 3 0 0 0 2 0	3 1 1 0 5 0	12 0 0 0 0 0 0	14 5 4 0 0 0	14 2 0 0 0 0 0	21 0 5 0 3 0 3	23 3 1 4 1 0 6	24 0 1 1 0 1	24 2 5 0 0 1 5	16 0 4 0 2 8	15 2 0 1 1 0
South Atlantic: Delaware Maryland District of Columbia Virginia West Virginia North Carolina South Carolina Georgia Florida	0 0 0 0 0 1 3 9 15	0 0 0 2 2 1 2 23 10	0 0 0 0 1 3 19 6	0 1 0 5 0 0 13 40	0 4 1 2 0 8 9 91 13	0 3 1 3 1 5 79 16	0 14 0 4 1 0 5 71 27	0 11 2 3 1 10 16 71	2 16 8 7 0 16 11 69 10	2 21 6 9 1 4 8 74 14	0 32 8 5 4 10 8 50 16	0 16 7 15 2 12 10 49 4	0 17 3 11 2 9 8 26 4	1 24 2 4 1 8 11 22 6	4 15 3 8 4 10 11 17 9	0 18 12 10 1 7 8 11 7
East South Central: Kentucky Tennessee Alabama Mississippi West South Central:	1 0 3 4	0 1 10 5	2 0 22 6	10 5 40 2	4 12 46 12	11 24 58 10	7 13 49 9	13 31 80 10	15 37 82 11	25 39 78 5	15 29 65 12	18 38 66 10	14 29 38 5	7 24 57 5	6 39 35 3	6 27 22 7
ArkansasLouisianaOklahomaTexas	0 1 1 2	0 3 1 2	0 0 0 4	0 1 1 8	1 2 0 1	2 2 1 3	1 5 0 4	3 2 1 4	4 3 0 3	1 7 1 2	3 3 2 5	1 3 1 3	5 1 2 4	2 2 3 2	1 4 2 5	4 1 3 4
Montans Idaho Wyoming Colorado New Mexico Arizona Utah Nevada	0 0 1 0 0 1 0 0	1 0 1 1 0 0	00000000	0 0 0 0 0 0 0 0 0	1 0 0 0 1 0 0	1 0 1 0 1 0 1	0 0 0 2 0 0 1	0 0 0 1 0 0 2	1 0 1 0 0 0 3	0 0 0 1 0 0 1 0	3 1 0 0 0 2 3 0	1 0 2 3 1 0 4	2 1 0 6 1 0 3	0 0 0 4 0 2 2	0 1 0 1 0 0 3 0	1 0 0 1 1 0 1
Pacific: Washington Oregon California	0 7 9	0 0 7	0 0 3	5 1 8	0 0 1	0 0 9	1 1 8	3 0 7	4 3 5	0 3 16	0 5 6	2 6 7	8 6 8	5 12 10	4 5 10	7 8 5

Whooping cough.—For the current 4-week period there were 13,015 cases of whooping cough reported, as compared with 10,726 for the corresponding period in 1940, which figure also represents the 1938-40 average incidence for this period. Each section of the country except the Middle Atlantic reported a relatively large number of cases, the increases over the normal seasonal incidence ranging from about 10 percent in the South Atlantic region to approximately 60 percent in the Mountain and Pacific regions.

Measles.—The number of cases (3,200) of measles reported for the current period was almost 20 percent in excess of the 1936-40 average incidence for this period. Each section of the country except the West North Central contributed to the excess. The disease still remained unusually prevalent in the South Atlantic region, the number of cases there being more than three and one-half times the normal seasonal incidence.

DISEASES BELOW MEDIAN PREVALENCE

Diphtheria.—For the 4 weeks ended October 4, there were 1,759 cases of diphtheria reported, an increase of approximately 30 percent over the number reported during the corresponding period in 1940. However, the number was considerably below the 1936–40 average incidence (2,296 cases) for this period. In the New England, West North Central, West South Central, and Mountain regions the incidence stood at about the normal seasonal level, but in all other regions the incidence was comparatively low.

Meningococcus meningitis.—The number of cases of meningococcus meningitis was also relatively low, 103 cases as compared with 107 in 1940 and an average of 113 cases for the corresponding period in the years 1936-40. In the New England region, although the number of cases (14) was not large, it was twice the average seasonal expectancy; in the Middle Atlantic, South Atlantic, West South Central, and Pacific regions the incidence was about normal, and in the North Central, South Central, and Mountain regions the incidence was relatively low.

Scarlet fever.—The number of cases (4,281) of scarlet fever reported for the current period was the lowest recorded for this period in the 13 years for which these data are available. Each section of the country shared in this favorable situation except the New England section; there an increase over the normal seasonal expectancy of about 25 percent was reported.

Smallpox.—The incidence of smallpox remained at a comparatively low level. For the current period 21 cases were reported as compared with the record low level of 48 cases reported for the corresponding period in 1940, and an average of 125 cases in the years 1936-40. In

the North Central, Mountain, and Pacicfi regions the current incidence was the lowest on record for this period.

Table 2.— Number of reported cases of 9 communicable diseases in the United States during the 4-week period September 7-October 4, 1941, the number for the corresponding period in 1940, and the median number of cases reported for the corresponding period, 1936-40

Division	Current period	1940	5-year median	Current period	1940	5-year median	Current period	1940	5-year median		
	I	Piphther	ia	I	nfluenza	1		Measles 2			
United States	1, 759	1, 316	2, 296	3, 358	2, 165	1, 955	3, 200	2, 816	2, 816		
New England	25 69 161 110 707	16 95 138 83 406	31 154 276 113 971	3 18 225 29 936	9 28 204 41 790	9 55 204 117 781	304 622 519 164 572	333 769 684 177 151	215 389 506 177 151		
East South Central West South Central Mountain Pacific	273 294 67 53	196 240 49 93	453 290 64 93	55 1,642 300 150	256 531 205 101	163 531 136 101	187 260 213 359	191 92 208 211	121 110 208 211		
	Meningococcus meningitis			Po	liomyeli	tis	Scarlet fever				
United States	103	107	113	2, 239	2, 859	1, 844	4, 281	4, 808	5, 357		
New England Middle Atlantic East North Central West North Central South Atlantic East South Central West South Central Mountain Pacific	14 29 5 5 25 7 9	11 25 19 9 15 10 8	7 28 19 9 27 18 10 7	151 793 378 116 314 324 45 30 88	26 120 1, 147 868 348 78 76 71	26 120 417 270 83 57 65 71	355 625 1, 113 482 650 426 154 156 320	218 796 1, 439 519 629 474 186 172 375	286 851 1,588 680 790 456 186 223		
r acinc	Smallpox			Typhoid and para-			Whoo	496			
	 1			tài	hoid fev	er 					
United States	21	48	125	1, 216	1, 444	1, 737	13, 015	10, 726	*10,726		
New England Middle Atlantic East North Central West North Central South Atlantic East South Central West South Central West South Central Mountain Pacific	0 0 7 5 1 6 1 1	0 9 30 0 2 3 2 2	0 0 25 30 4 7 9 38 10	29 190 142 83 273 167 234 46 52	21 155 158 124 297 222 339 79 49	32 207 341 124 357 222 385 132 90	978 2, 835 4, 197 823 1, 288 509 509 701 1, 175	775 2, 732 3, 009 585 1, 160 496 535 267 1, 167	775 2, 856 3, 009 578 1, 160 436 420 446 742		

Mississippi, New York, and Pennsylvania excluded; New York City included.
 Mississippi excluded.

Typhoid fever.—The number of cases (1,216) of typhoid fever was only about 85 percent of last year's figure for the corresponding period and approximately 70 percent of the 1936–40 median incidence. The incidence for the country as a whole was the lowest in recent years and each section of the country shared in this favorable situation.

Three year (1938-40) median.

MORTALITY, ALL CAUSES

The average mortality rate from all causes in large cities for the 4 weeks ended October 4, based on data received from the Bureau of the Census, was 10.2 per 1,000 inhabitants (annual basis). The rate for the corresponding period last year was 10.6 and the average rate in the years 1938-40 was 10.7.

DEATHS DURING WEEK ENDED OCTOBER 11, 1941

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

•		Corresponding week, 1940
Data from 88 large cities of the United States: Total deaths	7, 783 7, 776 344, 153 11. 7 554 21, 548 64, 520, 321 9, 924 8. 0	7, 764 345, 231 11. 8 499 20, 566 64, 819, 862 10, 763 8. 7 9. 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 OCTOBER 18, 1941 Summary

The number of reported cases of poliomyelitis dropped to 312 for the current week as compared with 429 for the preceding week. The largest numerical decrease occurred in the Middle Atlantic States, where the number of cases dropped from 146 to 97 cases, all three States in the area (New York, New Jerscy, and Pennsylvania) reporting decreased incidence. The largest increases were in Georgia (6 to 18) and Alabama (17 to 22). Only six States reported 15 or more cases, as follows (last week's figures in parentheses): New York 55 (79), Pennsylvania 30 (42), Alabama 22 (17), Georgia 18 (6), Tennessee 17 (16), Illinois 16 (25). The largest weekly number of cases (624) was reported for the week ended August 30.

A total of 1,131 cases of influenza was reported for the week as compared with 995 for the preceding week and with a 5-year (1936-40) median of 717 for the corresponding week. Texas reported 529 cases, or about half of the total for the current week, while South Carolina reported 151 cases and Virginia 104. The disease has been slightly above the median expectancy continuously during the past summer, due to the unusually large number of cases reported in Texas.

While for the country as a whole diphtheria is below the median expectancy, considerably larger numbers of cases as compared with last year are being reported from the South Atlantic and South Central areas, where the incidence has notably increased during recent weeks. Of 662 cases reported currently, 490, or 74 percent, occurred in these areas, of which 101 cases were in North Carolina.

Of 110 cases of endemic typhus fever, 46 were reported in Georgia and 29 in Texas.

The crude death rate for the current week for 88 large cities in the United States is 10.6 per 1,000 population as compared with 10.9 for both the preceding week and the 3-year average for the corresponding week. The cumulative rate to date, first 42 weeks, is 11.7, the same as for the corresponding period last year.

Telegraphic morbidity reports from State health officers for the week ended October 18, 1941, and comparison with corresponding week of 1940 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.

ı	D	iphthe	ria 	1	Influen	:8		Measle	3	Mer ni	ingitis ngococ	me-
Division and State	Week	ended	Me-	Week	ended	Ме-	Week	ended	Me-	Week	ended	Me-
	Oct. 18, 1941	Oct. 19, 1940	dian 1936– 40	Oct. 18, 1941	Oct. 19, 1940	dian 1936- 40	Oct. 18, 1941	Oct. 19, 1940	dian 1936- 40	Oct. 18, 1941	Oct. 19, 1940	dian 1936- 40
NEW ENG.				,								
Maine New Hampshire Vermont Massachusetts Rhode Island	0 0 0 0 2 1	0 0 9 1	3 0 0 3 1 2		1	1	10 1 82 3	0 10 143	2 3 71 1	Ó	0 2 2	
Connecticut	1	١	Z		1	2	''	2	•	ľ	۱ ۳	,
New York 1	15 3 9	14 9 12	17 9 24	1 <u>4</u> 6		¹ 11 5		84	91 33 135	2 0 7	1 0 2	8 0 2
E. NO. CEN.	٠	21	39	3	19		26	14	11	1	1	
Ohio	5 17 20 18 1	12 18 2 0	· 23 27 5	14 9 16	3 2 1	14 8	5	78 133 179	5 13 39 20	0 1 0 0	0 1 0 3	3 1 3 1 0
W. NO. CEN.												_
Minnesota. Iowa. Missouri. North Dakota. South Dakota. Nebraska. Kansas.	10 0 11 1 8 7 4	0 5 10 6 0 3	13 5 26 1 0 4 7	7	1 7 1	1 10 2 3	10 12 9 37 0 4 2	0 26 5 1 4 14 8	8 5 1 4 1 4	0 2 0 0 0	0 0 0 1 0 1	0 0 1 0 0
SO. ATL.												•
Delaware Maryland 4 Dist. of Col	3 7 2 33 12 101 63 30	1 3 0 16 8 67 17 28 8	1 8 5 77 29 143 17 53 8	104 10 10 151 25 25	70 15 2 103 16	7 33 15 4 140 16 2	0 11 4 20 45 73 16 7	2 2 0 35 2 3 1	0 3 1 6 2 80 2 0 2	0 3 0 1 0 0 1	00041000	0 1 0 4 1 1 0 0
E. SO. CEN.							•					
Kentucky Tennessee 2 Alabama 3 Mississippi 2 4	15 40 29 11	17 16 28 16	27 60 35 22	3 18	18 16 16	9 22 26	32 20 9	19 0 3	3 8 3	1 1 1 0	0 1 0 1	2 1 2 1
W. SO. CEN.	00			· 13	10	18	16	3	2	1	0	0
Arkansas Louisiana 2 Oklahoma Texas 2 Oklahoma	20 22 13 78	14 12 22 39	26 20 14 39	35 529	16 2 30 231	30 123	1 11 14	0 2 17	1 2 17	. 0	0 0 1	0 0 2
MOUNTAIN			}									
Montana Idaho Wyoming Colorado New Mexico Arizona Utah Nevada	5 0 1 13 1 2 0 0	1 2 0 8 0 2 1	1 0 0 8 3 5 1	9 16 1 51 2	7 81 6	15 1 7 1 53 1	3 1 1 30 19 10 3 0	14 3 5 19 7 16 3	13 19 1 19 9 1 4	0 0 0 0 0 0	0 1 1 0 0 0 1	0 0 0 0 0
PACIFIC Washington	o	5	2				6	5	6	o	o	. 0
OregonCalifornia 2	0 18	23	1 37	18 45	14 14	14 15	13 98	12 48	7 48	0	Ŏ 1	Ŏ 2
Total	662	482	883	1. 131	748	717	1, 042	1, 503	1, 313	28	25	45
42 weeks	11, 367	11.697	9. 558	574, 440	174, 065	156, 030	838, 324	235, 896	273, 299	1. 673	1, 391	2, 450

Telegraphic morbidity reports from State health officers for the week ended October 18, 1941, and comparison with corresponding week of 1940 and 5-year median—Continued

Continued												
	P	oliomy	ditis	'	Scarlet 1	ever		Smallpe)X	T pars	ypholo	and d fever
Division and State	Weel	c ended	Mo-	Wee	k ended	Me-	Week	k ended	Me-	Wee	k ende	Me-
	Oct. 18, 1941	Oct. 19, 1940	dian 1936- 40	Oct. 18, 1941	Oct. 19, 1940	dian 1936– 40	Oct. 18, 1941	Oct. 19, 1940	dian 1936– 40	Oct. 18, 1941	Oct. 19, 1940	40
NEW ENG.												
Maine New Hampshire Vermont Massachusetts Rhode Island Connecticut		0 0 2 0 1 0 7 1 3 1		9	4 7	4 1: 6 9 4 7: 0 2:	2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				3 0 0	0 2 0 0 1 0 2 2 0 1 1 1
MID. ATL. New York 3 New Jersey Pennsylvania E. NO. CEN.	. 12	13 11 7	14 5 7	5	4 6	6 51	1 () 0		1 :		2 3
Ohio Indiana Illinois ³ Michigan ⁶ Wisconsin	. 1	21 42 81	6 3 10 12 7	8 12	1 7 5 16 0 14	6 103 8 177 7 165		3 0	1 0	1	2 3	9 16 4 4 5 9 3 3
W. NO. CEN. Minnesota	1 2 0	55 18 3 4	18 11 8 2 1 2 2	3: 4: 6: 1: 10: 49:	5 5 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 59 7 57 1 14 8 21 9 19	0	0 1 4 0	3 1 1 4 0 1	8 2 1) (0 0 3 3 5 2 2 0 0 0 0 3 2
Delaware	6	0 0 0 16 37 5 0 0	0 2 1 2 3 3 0 1	22 14 37 64 93 11	31 14 32 36 70	39 1 12 2 38 8 80 9 84 1 13	0000	00000	000000000000000000000000000000000000000	0 10 1 8 9 6 1 1	12 12 4 17	8 0 12 7 8 5
Kentucky Tennessee ² Alabama ² Mississippi ^{2 4}	5 17 22 6	12 1 2 0	4 1 2 0	46 108 52 14	82 31	31	0 1 0 1	0 1 0 0	0 0 0	10 21 2 4	5	14 5
W. SO. CEN. Arkansas Louisiana 2 Oklahoma Texas 2 MOUNTAIN	2 1 0 6	1 5 3 7	3 1 2 7	7 6 14 26	15 23	8 23	3 0 1 0	0 0 0	0 0 1 0	8 5 6 25	19 8 5 13	9 14 12 21
Montana Idaho Wyoming 3 Colorado New Mexico Arizona Utah 4 Nevada	1 0 1 0 0 0 1 0	4 5 1 6 2 0 2	0 1 0 6 2 0 2	12 4 2 29 8 2 9	14 4 15 2	17 6 20 14 6	00000	0 0 0 1 0 0 0	3 0 0 1 0 0 0	1 0 1 8 3 0 0	2 4 0 3 9 0 0	2 8 0 3 15 8 0
PACIFIC Washington Oregon California 2	1 3 6	18 5 10	3 4 13	25 5 87	23 16 89	23 15 149	0 0 0	0 1 0	1 1 3	2 3 4	4 0 12	4 3 10
Total	312	514	246	1, 846	1, 985	2, 277	9	15	51	227	231	330
42 weeks	7, 591	7, 949	5, 998 1	01, 336	129, 251	151, 570	1, 230	2, 061	8, 546	7, 241	8, 160	11, 848
							!					

Telegraphic morbidity reports from State health officers for the week ended October 18, 1941, and comparison with corresponding week of 1940—Continued

THE SERVICE	Who	oping ugh			oping igh
Division and State	Week	ended—	Division and State	Week e	nded—
	Oct. 18, 1941	Oct. 19, 1940		Oct. 18, 1941	Oct. 19, 1940
NEW ENG.			SO. ATL.—continued		
Maine	9	8			
New HampshireVermont	7	1	South Carolina 3	62	
Vermont	3	_1	Georgia 2		1
Massachusetts	94	175	Florida 2	25	1
Rhode Island	.0	6		1	
Connecticut	33	88	E. SO. CEN.		
MID. ATL.	1 1		Kentucky	40	56
MID. ATL.			Tennessee 3	33	3
New York 2	287	329	Alahama 2	16	3
New Jersey		123	Alabama ² Mississippi ^{2 4}		'
Pennsylvania.		558	With the state of		
1 Onis ji vama		•	W. SO. CEN.		
E. NO. CEN.				1	
Ohio	226	261	Arkansas	15	12
Indiana	14	28	Louisiana 2	3	
Illinois 3		149	Oklahoma	11	13
Michigan 4	233	371	Texas 2	93	119
Wisconsin	231	113		1 1	
	1 1		MOUNTAIN		
W. NO. CEN.	1 1		Montana	14	8
Minnesota	56	42	Idaho Wyoming 3	5 3	
Minnesota		16	Colorado	69	13
Missouri		7	New Mexico	21	17
North Dakota		34	Arizona	5	12
South Dakota	16	07	Utah 4	18	
Nebraska	6	2	Nevada	10	
Kansas	52	87	110100	1 4	
Raibas		٠.	PACIFIC		
SO. ATL.	1 }	•	Washington	43	80
Delaware	i ol	3	Oregon	34	13
Marvland 4	39	93	California 3	181	249
Dist. of Col	25	2	1		
Virginia	171	31	Total	2,807	3, 329
West Virginia	16	25	[
North Carolina 3	112'	99	42 weeks	174, 520	131, 501

Fornia, 1.

Rocky Mountain spotted fever, week ended Oct. 18, 1941, 8 cases, as follows: Illinois, 2; Wyoming, 6 (delayed reports).

Period ended earlier than Saturday.

¹ New York City only.

² Typhus fever, week ended Oct. 18, 1941, 110 cases, as follows: New York, 2; North Carolina, 2; South Carolina, 2; Georgia, 46; Florida, 3; Tennessee, 7; Alabama, 9; Mississippi, 3; Louisiana, 6; Texas, 29; Cali-

WEEKLY REPORTS FROM CITIES

City reports for week ended October 4, 1941

This table lists the reports from 128 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

State and city	Diph- theria		uenza	Mea- sles	Pneu- monia	Scar- let	Small-	Tuber- culosis	Ty- phoid	Whoop- ing	Deaths,
State and city	cases	Cases	Deaths	CASES	deaths	fever cases	pox cases	deaths	fever cases	cough	all causes
Maine:											
Portland	0		0	1	1	2	0	0	0	5	25
New Hampshire: Concord	ه ا	Í	ا ه	0	0	1	1 0	1	0	0	6
Manchester	l ŏ		ŏ	ŏ	l ŏl	2	l ŏ.	ō	ŏ	ŏ	Š
Nashua	Ŏ		Ŏ	·ŏ	i	ō	ŏ	Ŏ	ŏ	ĭ	Ğ
Vermont:	1 .	1			1 1						
Barre Burlington	0		0	0	0	0	0	0	0	0	9
Rutland	Ĭŏ		ŏ	ŏ	l ŏ l	ŏ	ŏ	ŏ	ŏ	ŏ	7
Massachusetts:	١.			_	ا ا				_		
Boston Fall River	0 5		8	2	10 2	21 5	0	8	3	18 0	193
Springfield	lő		ŏ	3	اة	10	ŏ	ő	ŏ	8	18 32
Worcester	ŏ		ŏ	ŏ	4	3	ŏ	ž	ŏ	5	47
Rhode Island:				_	ا ا	_		_			_
Pawtucket Providence	0		0	2 0	0 1	0	0	0	8	1 39	9 56
Connecticut:			١	U	1 1	۰	· ·	- 1	٠,	38	30
Bridgeport	0		0	4	0	1	0	1	0	2	29
Hartford	0		0	0	0	1	0	0	0	2	30 23
New Haven	0		0	0	1	0	0	0	0	3	23
New York:			- 1					1	ı		
Buffalo	1		0	0	9	10	0	10	0	13	123
New York	6		1	9	40	36′	0	53	4	193	1, 236
Rochester	0		8	0	2 3	5	0	1 2	8	5 13	62 51
New Jersey:	U		١	١	ı "	- 1	١	- 1	١	10	31
Camden	0		0	0	0	0	0	0	3	0	22
Newark	0		0	2	1	15	Ŏ	5	0	27	82
Trenton Pennsylvania:	0		0	0	1	• 3	0	2	2	1	44
Philadelphia	0		ol	2	11	18	o l	28	3	51	417
Pittsburgh	3		0	2 2	6	6	ŏ	8	1	28	139
Reading	0		0	1	1	0	0	0	0	0	23
Scranton	0			2		0	0		0	1	
Ohio:			1		i	i	l		l	- 1	
Cincinnati	0		0	0	1	3	0	2	0	18	.80
Cleveland Columbus	0	2	0	0	3	7 15	0	8	8	33 15	190 89
Toledo	ŏ	1	ŏl	δĺ	4	5	ŏ	5	ŏl	15	74
Indiana:	- 1	- 1	1	- 1	_	- 1		- 1			
Anderson	0		0	0	0	0	0	0	- 0	0	• 6 20
Fort Wayne Indianapolis	0		8	0 1	3	8	0	0 3	0	0	71
South Bend	ŏ		ŏ	ō	ŏ	ŏ	ŏ	ŏ	0	0	14
Terre Haute	Ŏ.		Ó	0	1	0	0	1	0	0	11
Illinois:	o		اه	o	o	o	0	اه	0	0	16
Alton Chicago	9	1	ŏ	8	16	27	ŏ	30	ŏ	106	645
Elgin	ŏ		ŏ	ŏ	ŏ	ö	ŏ	ő	0	3	10
Springfield	0		0	0	1	1.	0	1	0	1	13
Michigan: Detroit	6		اه	48	4	29	اه	11	ol	116	239
Flint	î		٥١	i i	3	1	ŏl	"i	ŏ	5	239
Grand Rapids	ō l		ŏ	ō	i	1	Ō	1	ō	8	31
Wisconsin:	_	- 1		!							
Kenosha Milwaukee	0		8	0 5	0	3 16	0	0 7	0	89	8 169
Racine	ŏ.		ŏl	ĭ	ŏl	6	ŏl	ól	ŏl	2	12
Superior	ŏ į		ŏ	ō	ŏ	ŏ	ŏ	Ŏ	ŏ	2	10
_ 1		- 1	- 1	1		- 1		- [1		
Minnesota: Duluth	0	- 1	o	2	0	1	0	اه	اه	6	. 28
Minneapolis	ŏ.		ŏ	2	ŏ	7	ŏ	ŏ	ŏ	20	74
St. Paul	ŏ		ŏ	ī	4	3	ŏ	ĭ	ŏ	17	64
lowa:	- 1	- 1	1		1	اہ	اہ		اہ	اہ	
Cedar Rapids	0 -	-		0 -		2 0	0 -		0	0 -	
Davenport	0 -		0	0 -	0	1	8 -	0	ŏ	8 -	26
Sioux City	1			0 -		1	0		0	2 _	
Waterloo	ōΙ			ŏΙ		2	ŏ l		ŎΙ	2 _	•••••

City reports for week ended October 4, 1941—Continued

State and city	Diph- theria cases		uenza Deaths	Mea- sles cases	Pneu- monia deaths	Scar- let fever	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whooping cough cases	Deaths, all causes
			Descus								
Missouri:	_			_	_		١.		_	_	
Kansas City St. Jeseph	0		-0	2 1	8 2	4	0	8	0	1 0	104 28
St. Louis	ŏ		ŏ	i	·8	7	ŏ	ğ	ĭ	4	339
North Dakota: Fargo	0		0	0	0	0	0	0	0	0	11
Grand Forks	Ó			0		0	0		0	0	
Minot South Dakota:	0		0	0	0	0	0	0	0	1	5
Aberdeen	0			0		1	0		0	1	
Nebraska:	0			0		0	0		0	1	
Lincoln Omaha	ŏ		····ō	ŏ	i	2	ŏ	1	ŏ	î	43
Kansas:	0	2	o	0	0	1	0	0	0	0	3
Lawrence Topeka	ŏ		ŏ	Ö	1 1	1	0	2	Ō	3	30
Wichita	Ó		0	0	2	8	0	1	0	1	30
Delaware:							l				
Wilmington	. 0		. 0	- 0	2	2	0	0	0	1	24
Maryland: Baltimore	1	,	0	13	5	8	0	8	0	45	192
Cumberland	0		0	0	1 0	0	0	0	0	0	12 2
Frederick Dist. of Columbia	0 7		0	0 3	6	17	l ő	2	2	15	144
Virginia:	١			۱ ۵		0	0	1	0	5	16
Lynchburg Norfolk	2		0	0	1 2	3	ŏ	ō	ŏ	2	24
Richmond	0		0	0	2	1	0	3	0	0	49. 11
Roanoke	0		0	0	0	0	0	0	U	٠	1
Charleston	Q		. 0	1	2	1	0	0	1	1 0	12
Huntington Wheeling	0		ō	0	ō	0	0	ō	0	ŏ	26
North Carolina:				-				1 1			İ
Raleigh Wilmington	1 2		- 0	0	0	1 3	0	0	0	5 3	18 10
Winston-Salem.	8		ŏ	ŏ	i	4	Ŏ	ī	Ŏ	Ō	21
South Carolina: Charleston	0	6	o	0	0	1	0	o	3	1	10
Florence	0		1	2	0	1	0	Ō	0	0	5
Greenville	0		0	0	0	1	. 0	0	0	2	21
Georgia: Atlanta	0	12	Q	0	4	11	0	5	0	0	75
Brunswick	0	i	0	0	0 2	0	0	0 2	0 1	6	3 27
Savannah Florida:		l		l	1			1 1			l
Miami St. Petersburg.	0	1	0	0	0	0	0	0	1 0	2	29 19
Tampa	ŏ		ŏ	ŏ	Ō	ĭ	Ŏ	Ŏ	Ŏ	4	23
Kentucky:				l			ł				
Ashland	0		0	0	0	1	0	1	0	0	12
Covington	0		0	.0	0	2	0	1 2	0	. 0	8 13
Lexington Tennessee:			1				1	1 1	-	1	l
Knoxville Memphis	0		0	0	1 2	0	0	2 3	0 1	0	- 25 76
Nashville	ŏ		ĭ	ŏ	4	4	Ŏ	3	1	3	45
Alabama: Birmingham	2		0	0	5	5	0	2	2	0	66
Mobile	1		ŏ	0	ŏ	2	Ŏ	Ō	0	Ó	23
Montgomery	2			0		5			0	1	
Arkansas:				١.	i .					١.	
Fort Smith Little Rock	0	8		0	i	0	0	2	0	0	30
Louisiana:		1		İ	1 1		1				
New Orleans Shreveport	1	1	0	0	13 2	0	0	8 4	1 0	1 0	129 34
Oklahoma:						_	1				
Oklahoma City. Tulsa	0	1	0	0	1 0	1 2	0	1 0	0	0 2	29 17
Texas:			1								
Dallas Fort Worth	9		0	0	1 0	5 1	0	1 1	0	7 0	57 44
Galveston	0		Ō	0	1 3	0	0	2 5	0	اما	16
Houston San Antonio	8	2	0	0	3 6	0	0	8	0	8 1	44 16 73 55
2911 VII/OIII	. 0	. 4					•	•	•		

City reports for week ended October 4, 1941—Continued

State and city	Diph-	- 1	luenz a	Mea-	Pneu- monia	Scar- let	Small-	Tuber	Ty-	Whoop-	Deaths
State and city	cases	1	Deaths	Cases	deaths	fever cases	cases	death	2	cases	CAUSES
Montana: Billings	0	1									
Great Falls	ŏ		8	0	0 2	0	8	0	0	8	11
Helena	ŏ		Ĭŏ	Ô	ō	ŏ	lŏ	l ŏ	ŏ	ŏ	8 2
Missoula	Ŏ		Ŏ	Ŏ	i	Ŏ	Ŏ	Ŏ	Ŏ	Ŏ	8
Colorado:	_	l	١ .			_			_	l	
Denver Pueblo	20	15	0	1 4	1	11	0	2	0	44	71
New Mexico:	v		0	*	0	1	0	0	0	1	7
Albuquerque	0	1	1 0	0	0	0	0	1 0	0	111	9
Arizona:	-		1	1 1		-	-	1	Ĭ		
Phoenix	1	15		0		0	0		0	5	
Utah: Salt Lake City	0		0	0	1	2	0	1	0	9	29
Washington:		1									
Seattle	0		0	0	0	2	0	2	0	17	78
Spokane Tacoma	0		0	0	. 4	15	0	0	0	2	35 26
Oregon:	U		0	0	` 0	0	١	1	0	0	20
Portland	0	l	0	0	4	6	0	0	0	2	91
Salem	Ō	1		Ō		ŏ	Ŏ		ŏ	ō	
California:	_						_				
Los Angeles Sacramento	5 0	8	2	4	2	14	8	17	0	19	360
San Francisco	ŏ	4	8	6	4	2	ŏ	8	2	6 13	53 189
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					11			T		1	
		Menir	gitis,	Polio-	11			1	Menir		Polio-
04-4 3 -!4-	1	neningo	coccus	mye-		~		- 1	meningo	ococcus	mye-
State and city	⊢			litis	11	State a	na city	-			litis
	- 10	Cases	Deaths	Cases	ll .			- 1	Cases	Deaths	Cases
	_				-						
Maine:	i	j	1		36:	esota:		- 1	- 1	l	
Portland	- 1	اه	ol	1			oolis	1	o	0	2
Massachusetts:		١	١	•					ŏl	ŏl	7
Boston		1	0	9	Mars	rland:		٠,	1	- 1	•
Rhode Island:				_	E	altimo	re		1	. 0	4
Providence Connecticut:		0	0	1	Diet.	rederic	kolumbis		0	0	1
Bridgeport	- 1	0	o	1	I DIRIL	ICL OI C	ton	*:	اه	0	12
New York:		١	١	•	Florie	la:	WII		١	١	14
Buffalo New York		0	0	2	8	t. Peter	sburg		0	0	1
New York	1	3	0	25	Tenn	ASSAA:	_		1	- 1	_
Rochester		0	0	10			8		0	0	4
Syracuse New Jersey:		0	0	3	Alaba	ima: irminal	ham	- 1	o	اه	
Camden		0	ol	1	8	Tobile			8 I	81	1 2
Donnardronios		٠,١	١,	•	l Ñ	Contgor	nery		ŏl	ŏl	ĩ
Philadelphia		0	0	6	Arkai	1888:	-				
Pittsburgh	· ·	0	0	3	F	ort Smi	th		0	0	1
Reading Obio:		0	0	1		oma:		- 1		ام	
Cincinnati		0	اه	1	Texas				0	0	2
Cleveland	1	ŏ	ŏ	7	!! B	ouston			0	1	0
Columbus		0	Ŏ	i	II Q	n Ante	mia	1	ŏ	ō	ĭ
llinois:	- 1			_	Orego	n:			1	- 1	_
Chicago		0	0	8	Colife	ortiand			0	0	5
Elgin		0	0	1	Califo	FUIN:	eles		اه	اه	1
Wichigan.											
Michigan: Detroit		0	اه	21	"	00 11mg(103		١	١٧	
Michigan:		0	0	21 1		oo mage	103		ľ	ľ	•

Dengue.—Cases: Charleston, S. C., 1.

Encephalitis, epidemic or lethargic.—Cases: Minneapolis, 1; St. Paul, 1; Wichita, 1; Norfolk, 1. Deaths: New York, 1; Minneapolis, 3; Topeka, 1; Wichita, 1.

Pellagra.—Cases: Charleston, S. C., 1; Savannah, 2; San Antonio, 1.

Typhus fewr.—Cases: New York, 2; Savannah, 2; Nashville, 1; Birmingham, 2; New Orleans, 2; Dallas, 2; San Antonio, 1.

Rates (annual basis) per 100,000 population for a group of 89 selected cities (population, 1940, 33,902,982)

Period	Diph- theria cases	Infi Cases	uenza Deaths	Mea- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whooping cough cases
Week ended Oct. 4, 1941	12.00	8. 46	0. 62	21. 07	35. 53	60. 14	0.00	45. 83	4. 77	166. 72
Average for week, 1936-40	17.57	8. 71	2. 80	34. 51	52. 23	71. 66	.47	49. 12	8. 24	151. 10

TERRITORIES AND POSSESSIONS

HAWAII TERRITORY

Plague (rodent).—A rat found on September 12, 1941, and another found on September 18, both in the Paauhau area of Hamakua District, Island of Hawaii, T. H., have been proved positive for plague.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended September 13, 1941.—During the week ended September 13, 1941, 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 Bruns- wick	Que- bec	On- tario	iMani- toba	Sas- katch- ewan	Al- berta	British Colum- bia	Total
Cerebrospinal meningitis. Chickenpox Diphtheria Dysentery	1	4 5 11	1	11 35 16	4 37 7	1 4 2	3 2		2 15	11 75 59 23
Influenza Lethargic encephalitis Measles Mumps Pneumonia		3		47 55	12 28 3	10 2 14 1	1 61 16 21	5 8 4	17 12 3	3 76 97 134 9
Poliomyelitis Scarlet fever Trachoma		3 3	24 2	4 65	92 92	31 8	3 6	17 13	5 3 1	91 192 1
Tuberculosis	2. 6	16	12 5	61 51 89	6 105	8 1 	7 74 7	4 3	3 22	142 139 253

¹ Encephalomyelitis.

JAMAICA

Communicable diseases—4 weeks ended September 27, 1941.—During the 4 weeks ended September 27, 1941, 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	3 1 2	7	Erysipelas Tuberculosis Typhoid fever	1 26 16	79 16

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

NOTE.—Only those places are included which had not previously reported any of the above-named diseases, except yellow fever, during the current year. All reports of yellow fever are published currently.

A cumulative table showing the reported prevalence of these diseases for the year to date is published in the Public Health Reports for the last Friday of each month.

Plague

Chile—Valparaiso.—According to a cablegram dated October 11, 1941, received from the Director of Health of Chile, 1 case of plague was reported in Valparaiso.

Peru—Lima Department.—During the month of August 1941, plague was reported in Lima Department, Peru, as follows: Huaura, 1 case, 1 death; Sayan, 1 case, 1 death.

Typhus Fever

Puerto Rico—San Juan.—During the week ended September 13, 1941, 1 case of typhus fever was reported in San Juan, Puerto Rico.

Yellow Fever

Colombia.—Yellow fever has been reported in Colombia as follows: Santander Department—Bolivar, August 26, 1 death, August 30, 1 death; Intendencia of Meta—Villavicencio, August 31, 1 death.

COURT DECISION ON PUBLIC HEALTH

Restoration to employment under local board of health.—(Ohio Supreme Court; State ex rel. West v. Feyler et al., Board of Health. 34 N.E.2d 441; decided May 14, 1941.) In a mandamus action against the board of health of a city health district in Ohio, the relator sought to be restored to his employment as plumbing inspector and to his position as registrar of vital statistics. There was no statutory office or position under a local board of health known as "plumbing inspector" or "inspector of plumbing." Regarding the office of local registrar of vital statistics, section 201 of the General Code provided in part: "* * * and in cities the city board of health shall appoint a local registrar of vital statistics, and each shall be subject to the rules and regulations of the state registrar, the provisions of this chapter and to the penalties provided by law." Other General Code sections which were relevant to the matter were sections 4408 and 4411-1 which provided, respectively, as follows: "Sec. 4408. In any city health district, the board of health or person or persons performing the duties of a board of health shall appoint for whole or part time service a health commissioner and may appoint such public

health nurses, clerks, physicians, and other persons as they deem necessary." "Sec. 4411-1. The board shall determine the duties and fix the salaries of its employees * * *."

The Supreme Court of Ohio said that it would be apparent from reading the two latter sections that the respondent board (a) was authorized, but not required, to make appointments in addition to a whole or part time health commissioner and (b) had the power to determine the duties of all employees. In deciding in favor of the board of health the court stated that, as the appointment of relator, the fixing of his duties, and his term of office were matters of discretion resting with the board, there was no clear legal duty on the part of the board to make such appointment or to continue relator's employment. Under the above-mentioned section 201 there was a duty to appoint a local registrar of vital statistics but it was pointed out that no term of office was provided and, as there was no claim of a civil service status, the court said that there was no clear legal duty resting upon the respondents to retain relator in or reappoint him to such office. Furthermore, whether the duties of plumbing inspector and those of local registrar should be combined and discharged by one person was said to be a matter discretionary with the appointing power.

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