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THE RESPONSIBILITY OF THE NURSING PROFESSION IN INDUSTRIAL HYGIENE[1]

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It is well known that environmental conditions in certain workplaces can contribute to diseases among workers which are unique to a particular occupation and which do not exist in the nonindustrial population. However, it is also well known that occupational accidents and specific occupational diseases, while constituting an important problem in industrial hygiene, do not account for the major part of the time lost because of disability. It is apparent, therefore, that in addition to the problem of controlling accidents and occupational diseases, there exists also the important task of controlling the diseases which are just as common, and more important economically, among industrial workers as in the general population. That is why industrial hygiene has been considered an important branch of the general field of public health. It is for this reason, too, that the nursing profession plays such an important role in industrial hygiene, since it is one of the chief concerns of that profession to assist in the promotion of better health in the community.

NATURE AND EXTENT OF PROBLEM

Before launching into a discussion of the nature and extent of the industrial hygiene problem, it should be clearly understood that the legal responsibility for protecting the health of those gainfully employed is a function of official public health agencies. Furthermore, for the attainment of practical results in this field of public health, we need the combined efforts of personnel from several of the scientific professions, especially those concerned with medicine, nursing, engineering, and chemistry. It is essential, therefore, that the various professions involved should clearly understand the functions of each,

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approach the solution of problems in industrial hygiene as a joint effort, and cooperate with each other to the fullest extent.

If every plant had an adequate industrial health maintenance program, and if every State and local health department had a comprehensive industrial hygiene service, then the problem today would not be so difficult. However, recent studies made by the United States Public Health Service of health service facilities in a large number of industrial establishments (*1*), as well as those conducted by such agencies as the National Industrial Conference Board (*2*), the American College of Surgeons (*3*), and the Council on Industrial Health of the American Medical Association (*4*), indicate that such services are still far from meeting present needs. For example, in the Public Health Service analysis of approximately 17,000 establishments employing 1,500,000 workers in 15 representative States, it was found that only 15 percent of the employees were provided with the services of a full-time physician and only 22 percent with part-time services of a physician. It was also found that one-third of the workers surveyed had the services of a full-time nurse, while part-time nursing services were provided to only 1.5 percent of the workers in all of the industries studied. Insofar as the medical services are concerned, the data are sufficiently representative to permit the conclusion that nearly two-thirds of the industrial workers, when in need of medical services, look to the private practitioner of their choice. This is especially true with reference to the so-called nonoccupational disabilities. This fact definitely puts the responsibility upon the medical profession to acquaint itself with some of the problems in industrial hygiene. However, with respect to nursing services, it is apparent that the entire field of part-time services of this nature has been left unexplored and that nearly two-thirds of the industrial workers are without any provision of the services which a well trained public health nurse can render.

The survey data on medical services have been purposely presented, in order to call attention to the finding that nearly one-fourth of the workers were furnished with part-time medical services from physicians on call or those engaged on a part-time basis. It is a well-known fact that the physicians on call, and most of those who spend but 1 or 2 hours a day in an industrial plant, do not have the time to devote to a program of disease prevention. The responsibility for rendering certain services of a preventive nature, under proper supervision, to this large segment of the population is thus definitely placed on the plant nurse or on the public health nurse in the community.

Present activities in national defense have placed great stress on the importance of maintaining at a high level the health of industrial workers. It should, therefore, not be necessary today to justify industrial hygiene activities. However, lest the magnitude of the

problem be overlooked, it may be timely to reiterate certain pertinent facts.

Today there are still approximately 17,000 deaths from occupational accidents each year, 75,000 permanent disabilities, and nearly 1,500,000 temporary disabilities. Many problems arise from diseases peculiar to certain occupations, such as silicosis, lead poisoning, and the dermatoses, and there is every reason to expect many of these problems to be augmented as a result of increased industrial production. It is also known from many studies that industrial workers have higher rates of physical defects than nonindustrial workers, and with the shortage of skilled personnel now existing, there is the acute problem of finding ways and means of rehabilitating and absorbing some of these skilled workers who have become physically handicapped. We know that excessive mortality is especially notable among unskilled workers, and it has been well established that the average worker in this country loses approximately 10 days a year on account of sickness, and that the amount of time lost from general illnesses is about 15 times as great as the total amount of time lost from both accidents and occupational diseases. All of these problems will be greatly magnified with the present expansion in industrial production.

THE OBJECTIVES OF INDUSTRIAL HYGIENE

The preceding discussion of some of the problems in industrial hygiene which confront the Nation points rather definitely to the objectives of a practical program. These objectives may be conveniently divided into two parts: [2] (1) The general aim to protect and promote the health, safety, and efficiency of those persons who are gainfully employed; and (2) the specific aim to restore to health and normal functioning every ill or disabled worker, and to reduce death, illness, and disability among those gainfully employed.

The activities necessary for achieving the above objectives may also be considered from two viewpoints: (1) Those of a general nature, and (2) those of a more specific character.

General.—In general, the following activities may aid in the attainment of the objectives stated above:

1. Appreciation on the part of every employee and employer regarding his respective responsibility in the development and maintenance of good health and in the prevention of accidents.

[2] The U. S. Public Health Service, in cooperation with the National Organization for Public Health Nursing, has recently explored the entire field of public health objectives, especially as they relate to the functions of the public health nurse. The author has drawn freely on the material developed in this cooperative study as it relates to industrial hygiene, and has taken the liberty to rearrange some of it for the sake of presentation of the subject under discussion. It is the author's understanding that this material, which was furnished him by the Nursing Consultant of the Public Health Service engaged on this cooperative study, is still in rough draft and, hence, should not be considered as final.

2. The promotion of the well-being of the worker with particular consideration to such influences as wages and hours of work, mental and physical health, family and environmental conditions.

3. Provisions for the cooperative services of medicine, toxicology, dentistry, sanitation, safety, nursing, and social welfare.

4. Provision for interpretation and observance of legislative programs pertaining to the employment of women and children; safety and sanitation; compensation for accidents and occupational diseases.

5. A program that will promote community understanding, interest, and action in providing such educational facilities and services as are indicated in protecting and promoting the health and well-being of every gainfully employed individual and his family.

Specific activities.—The specific activities which should aid in achieving the objectives outlined herein have also been developed, and these are as follows:

1. An impartial health appraisal of every worker in order to correct remediable conditions and for suitable placement.

2. Control of unhealthful conditions and provisions for safety and good sanitation of the working environment.

3. Provision for prompt and continued treatment of sickness and accidents resulting from occupations.

4. The development of an industrial health program that will include the psychological, social, and economic factors that affect the worker.

5. Provision of a system for recording and following through each case of absenteeism resulting from illness or injury.

6. The utilization of all available community resources in the restoration of the worker to health and normal functioning, and in the rehabilitation of his family.

At this point in the discussion of the objectives of industrial hygiene there may be considered the role and the functions of the nurse in the achievement of the aims enumerated and the responsibility of the nursing profession in this important field of public health.

THE ROLE AND FUNCTIONS OF THE NURSING PROFESSION

It is generally conceded that the nurse in industry requires special training (*5*). It is felt that, regardless of whether the nurse working in industrial hygiene finds herself in an official agency, a nonofficial agency, or in industry, she should have some of the fundamental personal and professional qualifications listed in the article to which reference has just been made. It is obvious that an efficient industrial nurse must first of all be a good nurse; she must be thoroughly acquainted with industry and industrial processes, be well trained in public health, and have some knowledge of labor legislation, social problems, community welfare, and industrial hygiene practice. In

short, industrial nursing is as highly specialized a profession as are industrial medicine, public health administration, or similar professions requiring postgraduate training. Just how much will be expected from the nurse will depend in a large measure on her program and on herself. However, the nurse should be prepared to recognize industrial health hazards, and she should be professionally able to assist in the many duties involved in their control.

THE NURSE IN INDUSTRY

The tentative report recently prepared by the United States Public Health Service in cooperation with the National Organization for Public Health Nursing, to which reference has been previously made, lists the following 14 functions of the public health nurse in industrial hygiene:

1. Instructs employees and employers regarding their responsibility in improving and maintaining physical and mental fitness, efficiency, and a safe working environment.
2. Assists in the supervision and maintenance of good plant sanitation and safety.
3. Assists in arranging for complete medical and dental examination of all applicants for work, of employees who have been ill or disabled, and for periodic examination, particularly of those engaged in hazardous work.
4. Supplements the physician's instructions, following the examination, and assists, when indicated, in securing the necessary medical service.
5. Increases the efficiency and general well-being of the workers by helping to overcome such influences as fatigue, worry, mental strain, and friction in the home and plant.
6. Integrates the health service with other services by working jointly with all departments within the plant to insure a better understanding of the programs and problems of each division.
7. Assists in the interpretation of and compliance with various legislative measures affecting those in industry.
8. Assists the lunchroom manager in planning menus when the services of a nutrition specialist are not available.
9. Observes manifestations of deviations from normal health and functioning and reports them to the employer and to the physician.
10. Arranges, in accordance with approved medical instruction, for the care of emergency and minor injuries and illnesses occurring within the plant.
11. Demonstrates, continues to give, or supervises home nursing care of the worker and his family, in accordance with the policy of the company.
12. Assists, when indicated, in securing hospitalization and adequate aftercare of the disabled worker.
13. Works jointly with all community agencies in securing such psychological, social, and economic adjustment as may be needed for the worker and his family.
14. Promotes community understanding, interest, and action in the development of a good industrial hygiene program, including the provision of facilities and services needed to make such a program effective.

It may be appropriate at this point to expand further on several of the functions listed, so as to indicate some of the responsibilities confronting the nurse in industry. First, it is essential to call attention

to the fact that the nurse is often in a strategic position to enlist the cooperation of both employer and employee, not only in the prevention and control of the diseases arising out of the occupation, but also in the promotion of general health and mental well-being.

By now it should be obvious that one of the responsibilities of the nurse is to become thoroughly familiar with the various industrial processes in the plant, the occupational hazards, and the various methods in use for their control. In the small plant, where no medical and engineering control program is in effect, the nurse can conduct a thorough sanitary survey in order to acquaint herself with the plant health hazards. A sanitary survey may be likened to an inventory of the facilities afforded the worker while in the industrial environment, so that a knowledge of all the factors bearing on the health and happiness of the worker may be obtained. By the use of simple survey forms (*6*), the sanitary survey can be intelligently made by a nurse, even though she may have but limited technical knowledge of the medical and engineering phases of industrial hygiene. There are many industrial health problems which are not simple to recognize or to solve. However, there are also many which are easily recognized and solved, and which require but little expenditure of funds and very little effort for the eradication of the associated causes. The type of survey which can be conducted by the nurse not only often results in eliminating many sources of unpleasantness and ill health, but also gives the nurse the opportunity to familiarize herself thoroughly with the working environment. Thus, in her future dealings with workers in a dispensary or in their homes, she will have first-hand knowledge of each individual's working environment and how it may possibly be related to his existing disability.

Again, the nursing profession can make an important contribution to the field of industrial hygiene by stimulating the practice of preemployment and periodic physical examinations of workers in industry, and by calling attention to the necessity for correcting those physical defects revealed by the health examination. Apropos of health examinations, it is desired to call attention to a recent paper by Ruth W. Hubbard (*7*), in which she discusses the use of existing visiting nurse services for industrial workers in small plants, and in which she presents a very striking example of the influence the plant nurse can exercise in overcoming such factors as fatigue, worry, and mental strain. As she so aptly points out, the frequent appearance of the nurse in the plant gives the workers a sense of her familiarity with their problems, and gives them the assurance necessary to talk with her about these problems. She cites the example of an older employee who was concerned about the possibility of dismissal because of age and who was relieved of his anxiety and worry by the skillful handling of the problem on the part of the plant nurse.

The nurse can also contribute much to the plant industrial hygiene program by familiarizing herself with existing and pending legislation pertaining to the worker. Any rules and regulations for the control of health hazards in industry which may exist should be known by the nurse and she should assist in the interpretation of, and the compliance with, these rules and regulations. If an occupational disease law exists in the State in which the nurse works (and there are now 24 States which have occupational disease legislation), the nurse should cooperate with the official agency to whom reports of the occurrence of occupational diseases among workers must be made. It is obvious that unless such reports are made it will be practically impossible for the official agency to carry out its functions. The same attitude should be adopted toward the reporting of occupational diseases which now exists with regard to the reporting of communicable diseases. The recurrence of such diseases may be obviated by the prompt investigation on the part of a State industrial hygiene service of those conditions in the plant which may be the causative agent. Once the cause has been established, prompt measures may be taken for the control of the environmental conditions responsible for the disease.

Earlier in this discussion mention was made of providing a system of recording and following through each case of absenteeism resulting from illness or injury. It is obvious that the recording of absenteeism due to disability means little more than statistics on the subject unless something is done concerning each case. The nurse is the logical person to follow through each case of absenteeism by a visit to the home of the worker. In this way she not only obtains specific information on the cause of absence, and may often be in a position to aid in the prompt rehabilitation of the patient, but, at the same time, she is in a position to advise the family of the worker concerning other pertinent public health matters. Quite often the nurse may discover that the absence has a direct relation to the worker's occupation, and hence can initiate the needed corrective measures in the plant.

The necessity of cooperating with the local official health agency has repeatedly been stressed. The plant nurse, either as an individual or through her State and local nursing society, should utilize to the fullest extent the services which may be rendered by official and nonofficial nursing organizations, and through the official agency the services of the industrial hygiene division of that agency. It is perhaps unnecessary to urge nurses to take advantage of community resources, since nurses have been the pioneers in this regard. The other professions engaged in industrial hygiene work can learn a great deal from the nursing profession concerning the utilization and mobilization of community resources for a closely integrated industrial hygiene program.

Some of the services which may be rendered by the official industrial hygiene agency are:

1. Consultation with plant management regarding needed correction of environmental conditions.
2. Advice to the management and medical supervisor as to the relative toxicity of materials or processes, and advice concerning new materials prior to their introduction into the industry.
3. Assistance in developing, maintaining, and analyzing absenteeism records.
4. Consultant service to medical supervisors, private physicians, compensation authorities, and other State agencies regarding illness affecting workers.
5. Provision of necessary laboratory service of both a clinical and a physical nature.
6. Integration of the activities of other public health bureaus in their programs for workers, for example, the control of cancer, syphilis, and tuberculosis.

THE NURSE IN OFFICIAL AGENCIES

Although nursing services in official public health agencies are still considered far from adequate, these have been increasing rapidly in the past few years. In a recent paper on the subject of the availability of trained industrial nurses (*8*), Ruth Houlton stated that according to the United States Public Health Service Nursing Census of 1940 there were approximately 24,000 public health nurses, which is an increase of nearly 30 percent over the number of such nurses in 1930. The number of industrial nurses in this group was approximately 3,000 and apparently has remained stationary.

It is only in the last few years that official public health agencies have recognized the importance of industrial hygiene and their responsibility in this field, and have begun to provide such services to the gainfully employed. It is not surprising, therefore, that even though there has been an increase in official public health nurses, practically no consultant industrial nurses exist on the staffs of these agencies. Today, only one or two States have provided a public health nursing consultant in industrial hygiene.

The nursing consultants of the United States Public Health Service have realized this need for some time, and plans are now under way for overcoming this deficiency. There is now in the central office in Washington a consultant nurse who works with the general public health consultants but who has industrial hygiene as her special interest. This nurse works closely with the States' Relations Section of the Division of Industrial Hygiene of the National Institute of Health in the program which that Division is carrying on in the development of industrial hygiene services in State and local health departments. A concentrated course of instruction in the broader

aspects of industrial hygiene to all consultant nurses in the Service was recently given in Washington. Five of the nursing consultants are located in the Public Health Service districts and are in a position to stimulate an interest in industrial nursing in the various State nursing bureaus in their districts. In this manner it is hoped to arouse sufficient interest so that consideration will be given by each State to the appointment of a consultant nurse who has had special preparation in industrial hygiene. Such a nurse could work in close relationship with the State nursing and industrial hygiene bureaus in the promotion of industrial nursing.

One of the tasks of this State public health nurse would be to give instruction on public health methods to nurses in plants. The State nurse could stimulate the formation of an industrial nursing society, if none exists in the State, with whom she could meet frequently and discuss current industrial hygiene problems. The State nurse could also consult with the local official public health nurses and could instruct them in industrial hygiene practice. The industrial hygiene division of the State could cooperate with the State nursing consultant in industrial hygiene in presenting a course of instruction to plant nurses. It should be obvious that such a procedure will in time penetrate to local public health agencies, namely, districts, cities, and counties. For example, if there is no nurse in a plant in a community, then the public health nurse of that community is in a position to render at least consultant services to the plant. Some of the functions previously listed for the industrial nurse may be advantageously practiced by the local official nurse.

The entire field of industrial hygiene has apparently been woefully neglected by official public health workers in the past. Public health physicians, engineers, and nurses responsible for the community health program have learned the value of promoting programs among such organizations as parent-teacher associations, and similar bodies. However, they have completely overlooked the untapped source of interest and benefit which may be derived from a public health program in industry. After all, the industrial organizations in a community are the ones which contribute the greatest amount of funds, through taxation, to community enterprises, and these organizations also include many of the influential and successful citizens. It should not be difficult to convince a business man of the value and benefit to be derived from a health program, since in many instances such a program can be translated into dollars and cents. The official public health agency, by rendering adequate health service to the workers in a plant, may often interest an employer in other health measures which the local health department may be attempting to promote at the time. The nurse can do much to establish an interest on the part of industry in the local public health program through her

contacts with plant officials and workers in the course of her visits to the plant.

THE NURSE IN NONOFFICIAL AGENCIES

Ruth W. Hubbard, general director of the Visiting Nurse Society of Philadelphia, (7) has so ably presented the work of the visiting nurses in the small industrial plant that it is entirely unnecessary to discuss this subject further. As she points out, the plant which needs and wishes to pay for part-time nursing services may now properly turn to its local public health organization for such a service. There are more part-time than full-time medical services rendered in industry, while the reverse holds true with reference to nursing services, there being practically no part-time nursing services in industry. There is no reason why such services cannot be supplied by the nonofficial agency in the community. Today only a few of the nonofficial agencies are actually engaged in some form of industrial work. Nursing organizations should be encouraged in their efforts to promote such activities on the part of nonofficial nursing agencies, especially in those communities where the official nursing agency is inadequately staffed to render services in industry.

SUMMARY

An attempt has been made to define some of the problems of industrial hygiene and to indicate to what extent these are now being met, both on the part of industry and various health agencies. The objectives of industrial hygiene have also been defined and some of the activities involved for achieving these objectives have been presented. And, finally, the important role which the public health nurse plays in the entire program of maintaining employee health has been discussed from the viewpoint of the nurse in industry, in official agencies, and in nonofficial organizations.

Now more than at any other time in its history, the Nation is faced with a distinct challenge and a crying need to do everything possible to maintain at a high level the health of workers. As stated earlier, for the attainment of practical results in industrial hygiene, the combined efforts of personnel from several of the scientific professions are needed. The public health nurse has taken a very important place in the entire national health endeavor and has always fulfilled in a creditable manner every responsibility which has been assigned to her. There is no reason why the public health nurse cannot do equally well in the field of industrial hygiene; the individual nurse and the nursing organizations should be given all possible encouragement to participate in this very important phase of public health. It is only by the concerted efforts of the various professions which make up the public health movement that the desired objectives

in industrial hygiene can be achieved; and certainly the nurse can play a very active part in the attainment of these objectives.

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THE INCIDENCE OF CANCER IN NEW ORLEANS, LA., 1937[1]

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This paper continues the series of investigations into the prevalence and incidence of cancer through a survey of 10 areas in various parts of the United States (*1–4*). The findings here discussed concern the survey made in New Orleans, La.,[2] of all cases seen by doctors or hospitals in that area during the calendar year 1937 and diagnosed, either then or prior to that year, as malignant neoplasms. The criteria used in determining the cases to be included were the diagnoses of the reporting physicians, and all types of growths having inherent malignant characteristics were included. Thus sarcomas, epitheliomas, hypernephromas, and the like, were included as well as carcinomas. For a detailed outline of the procedure used in collecting these data from the individual hospitals and doctors, the reader is referred to the first paper in this series (*1*).

The population of this area was 458,762 in 1930. Reports were obtained from all but 8 of the 592 doctors of medicine in practice there in 1937. Since 48 of the 592 physicians submitted joint reports with other doctors, there were actually 536 separate reports received out of a possible 544 reports from doctors. The total number of hospitals

[1] From the Division of Public Health Methods, National Institute of Health.

[2] The data for this area were collected under the supervision of Arthur J. McDowell and Arthur Weissman. The tabulation of the data was carried out under the supervision of Miss Bess Cheney. Assistance in the preparation of these materials was furnished by the personnel of Work Projects Administration Official Project No. 65-2-23-356. The entire survey was under the direction of Harold F. Dorn.

and clinics was 35 and reports were received from all of them. This represents 98.5 percent of all the doctors and 100 percent of the hospitals and clinics.

NUMBER OF CASES REPORTED

There were 814 deaths in New Orleans in 1937 that were attributed, on the death certificate, to cancer. This includes all death certificates on which cancer appeared as a cause of death, with or without other causes. The reports obtained covered these cases as well as any living cases seen during the year. The total number of individual cases reported in New Orleans was 3,277; about four-fifths, or 2,631 cases, were white and one-fifth, or 646 cases, were colored. Cases among females constituted nearly 56 percent of the total number. Over 61 percent of the cases were residents of New Orleans, 35 percent were nonresidents, and the rest, 124 cases, or 3.7 percent, were of unknown residence.

As in the previous studies in this series it was necessary to resort to an indirect method of determining the case rates of cancer incidence and prevalence, because it was inadvisable to apply the latest population figures then available, for the year 1930, to the study year 1937. Consequently the ratio of cases to deaths was found for the study year and this ratio was applied to the death rate for 1930. In doing this resident cases and deaths only were used, since incomplete reporting of deaths of nonresidents is to be expected. For New Orleans these ratios are 3.6 for both sexes combined, 3.3 for males, 3.8 for females, 3.9 for all white cases, and 2.6 for colored. These ratios are higher than those found in any of the cities previously surveyed except Atlanta, where the ratio for both sexes was 5.3, and the other ratios were correspondingly higher.

TABLE 1.—*Number of reported cases of cancer and recorded deaths with the ratio of total resident cases to recorded resident deaths by sex and color, New Orleans, 1937*

	Number of individual cases or deaths								
	White			Colored			Total		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Reported cases	2,631	1,262	1,369	646	188	458	3,277	1,450	1,827
Deaths from cancer [1]	599	313	286	215	84	131	814	397	417
Reported as a case	*541*	*288*	*253*	*187*	*76*	*111*	*728*	*364*	*364*
Not reported as a case	*58*	*25*	*33*	*28*	*8*	*20*	*86*	*33*	*53*
Total resident cases [2]	1,683	756	927	380	96	284	2,063	852	1,211
Resident death certificates	433	213	220	146	48	98	579	261	318
Ratio (resident cases per resident death)	3.9	3.5	4.2	2.6	2.0	2.9	3.6	3.3	3.8

[1] From the Bureau of Vital Statistics, New Orleans, La.
[2] Includes resident cases from death certificates only, as well as all reported resident cases.

Caution must be used in interpreting a ratio of cases per death as a measure of the relative prevalence of cancer. In the first place, this method takes no account of the differences that may exist in the death rates of the places compared. Thus, since New Orleans has relatively more deaths from cancer than Atlanta, the ratio of cases to deaths would be lower in New Orleans if the existing case rate were exactly the same as that in Atlanta. A second shortcoming of the ratio of cases to deaths is that it makes no allowance for the variations that may exist among the cities examined in distribution of cases by primary site of the growth. Since (as will be shown later in this paper) certain sites, such as skin, have a lower fatality rate than certain others, a city in which cancer of the skin is especially common will have more cases per death. Yet this higher ratio may indicate a higher incidence of skin cancers only, while cancer of other sites may be no more frequent than in the cities having lower ratios. Likewise, this measure does not take into account possible differences in age distribution of the populations nor does it allow for differences in the proportions of the cases that were not being treated for cancer but were kept under observation to guard against recurrences. This last factor explains at least part of the difference between the ratios for New Orleans and for Atlanta. Less than 5 percent of the reported cases in New Orleans were cases that were being kept under observation, while in Atlanta 24.5 percent were in this category. Thus the lower case-death ratio in New Orleans reflects the lesser proportion of follow-up cases among persons in whom cancer has been, at least temporarily, arrested.

The 1930 cancer death rate for New Orleans was 140.7 per 100,000 population. If the above ratio of number of cases per death is applied to this death rate it gives a case rate of about 500 per 100,000. Since the 1937 death rate was probably higher than the 1930 rate here used, it seems this is a conservative approximation of the 1937 prevalence rate, where that rate is defined as including all cases seen or treated in one year's time.

NATURE AND NUMBER OF REPORTING SOURCES

Of the 3,277 cases reported in New Orleans, 67.5 percent were reported by hospitals only, 22.4 percent by doctors only, and the remaining 10.1 percent by both doctors and hospitals. There was only one report per case for 86.1 percent of the cases. A greater proportion of the colored cases than of the white cases were reported by hospitals only, and likewise, a greater proportion of colored cases were reported by one source only. Over 95 percent of the colored cases were reported by only one source, while for whites the figure was 83.9 percent. Less than 14 percent of the colored cases were reported by private practitioners (as distinguished from hospital doctors) while over 37

percent of the white cases were so reported. The high proportion of hospital cases among the colored were largely reported either by the clinics of the hospitals or by the State supported Charity Hospital.

TABLE 2.—*Percentages of cases reported by various reporting sources, and by number of sources, by sex and color, New Orleans, 1937*

	Percent of cases								
	Both sexes		All colors		White		Colored		All cases combined
	White	Colored	Male	Female	Male	Female	Male	Female	
Nature of source:									
Doctor(s) only	25.5	9.6	23.2	21.8	25.8	25.4	5.9	11.1	22.4
Hospital(s) only	62.8	86.8	66.9	68.0	63.3	62.2	90.9	85.2	67.5
Doctor(s) and hospital(s)	11.7	3.6	9.9	10.2	10.9	12.4	3.2	3.7	10.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sources:									
1 source only	83.9	95.2	86.0	86.2	84.6	83.1	95.2	95.2	86.1
2 sources only	13.7	4.3	12.0	11.7	13.2	14.3	4.3	4.4	11.9
3 or more sources	2.4	.5	2.0	2.1	2.2	2.6	.5	.4	2.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3.—*Percentages of cases reported by reporting source, for each primary site group, with percentages of cases that were reported once only, New Orleans, 1937*

Primary site	Percent unduplicated	Percent reported by		
		Doctor(s) only	Hospital(s) only	Doctor(s) and hospital(s)
Buccal cavity	87.5	17.8	73.9	8.4
Digestive tract	85.7	20.7	68.0	11.4
Respiratory system	76.3	30.9	54.6	14.5
Genitourinary system	83.8	14.8	72.4	12.8
Breast	77.2	16.2	66.6	17.2
Skin	94.8	39.3	58.0	2.7
Brain	97.3	21.6	75.7	2.7
Bones	87.3	23.8	69.8	6.4
All others	89.7	18.0	75.9	6.2
All sites	86.1	22.4	67.5	10.1

In table 3 the data are examined for the relationships between the part of the body first affected by the malignant growth (primary site) and the nature and number of reporting sources. Among the cases most often unduplicated are those involving the skin, and these same cases are more often reported only by a doctor than are cancers of other sites. Malignant tumors of the brain are also reported by only one source more often than are other malignant tumors. Cancers of the breast and of the respiratory system, however, are seen by more than one source in a greater proportion of the cases than are cancers of other sites.

NUMBER OF CASES REPORTED PER DOCTOR OR HOSPITAL

Over one-half (56.9 percent) of the reporting sources had neither seen nor treated any cases of cancer in 1937. A large number of the doctors who had no cases were specialists in fields where malignant growths are unusual (obstetrics, psychiatry, pediatrics, etc.), while the institutions reporting no cases were mostly small sanatoria likewise devoted to specialized fields (maternity homes, for example). Nevertheless it is true that most of the general practitioners had seen relatively few cases of cancer. In New Orleans 93 percent of the doctors reported having seen not more than 5 cases each in the year 1937. This 93 percent of the doctors accounted for only about one-third (34 percent) of all the cases that were reported by doctors. Likewise 60 percent of the hospitals reported fewer than 6 cases and they contributed only 0.2 percent of the total hospital cases reported.

The bulk of the cases, therefore, were reported by only a few doctors and hospitals. Table 4 shows that over half the doctors' cases were reported by the 2.8 percent of the doctors each of whom had seen over 10 cases. For hospitals, over 99 percent of the cases were reported by 12 institutions (approximately one-third of the entire number), each of which had seen over 10 cases of cancer.

TABLE 4.—*Percentage distribution of reporting sources by number of cancer cases reported, with the corresponding percentage distribution of cases, New Orleans, 1937*

Number of cases reported by each source	All sources		Doctors		Hospitals	
	Percent of all sources reporting	Percent of all cases reported	Percent of all sources reporting	Percent of all cases reported	Percent of all sources reporting	Percent of all cases reported
No cases	56.9	0.0	57.5	0.0	48.6	0.0
1 or more cases	43.1	100.0	42.5	100.0	51.4	100.0
1 case	*15.2*	*1.9*	*15.7*	*7.4*	*8.6*	*.1*
2 to 5 cases	*18.7*	*6.9*	*19.8*	*27.0*	*2.9*	*.1*
6 to 10 cases	*4.4*	*4.2*	*4.3*	*15.3*	*5.7*	*.5*
11 to 20 cases	*1.6*	*2.9*	*1.1*	*8.0*	*8.6*	*1.2*
Over 20 cases	*3.2*	*84.1*	*1.7*	*42.3*	*25.7*	*98.1*
Total reporting	100.0	100.0	100.0	100.0	100.0	100.0

FREQUENCY OF MICROSCOPIC EXAMINATIONS TO CONFIRM DIAGNOSES

Cases which had been diagnosed as cancer by a licensed doctor of medicine were included in the survey irrespective of the method of diagnosis used. However, a column on the schedule form provided for designating those cases where the diagnosis had been confirmed by a microscopic examination of the tissue (biopsy or necropsy). In 51.7 percent of the cases there was such a test. This is significantly lower than the percentages in the cities previously surveyed, except for Atlanta where the figure was 52 percent. For Chicago, Pittsburgh, and Detroit, the percentages were 70, 62, and 78, respectively. One

reason for this is that in New Orleans, as in Atlanta, a high proportion of the cases were cancers of the skin. Fewer specimens of tissue are examined in these cases, partly because of the disfigurement that might result. The large proportion of skin cancers, however, explains only a part of the low frequency of microscopic examinations. Table 5 shows for each of several primary site groups the percentages of cases microscopically diagnosed. While such an examination was made in only 38.9 percent of the cases of cancer of the skin, for almost every site there was a lower percentage of biopsies than in the northern cities surveyed. As in cancer of the skin, there was a lower percentage of biopsies for malignant tumors primary in the brain and the digestive tract than in the other sites. This reflects the positive relationship between accessibility of the growth and probability of microscopic diagnosis, a relationship to which cancer of the skin is an exception.

TABLE 5.—*Percentage of cancer cases reported that had a microscopically confirmed diagnosis, by primary site and whether reported by a hospital, New Orleans, 1937*

Primary site	Percentage of cases microscopically diagnosed		
	All reports	Reported by doctor only	Reported by a hospital [1]
Buccal cavity	58.5	33.3	64.0
Digestive tract	33.0	23.0	35.6
Respiratory system	56.6	57.4	56.2
Genitourinary system	62.9	54.4	64.3
Breast	66.3	45.5	70.4
Skin	38.9	11.4	56.7
Brain	21.6	25.0	20.7
Bones	66.7	66.7	66.7
All other sites	51.3	34.3	55.0
All sites	51.7	31.1	57.6

[1] With or without a duplicate doctor's report.

SITE DISTRIBUTION OF REPORTED CANCER CASES

An examination of the 3,277 cases on the basis of the primary sites of the malignant lesions shows that there are sharp differences between the distributions of male and female cases, and likewise between those of white and colored cases. For this reason the percentage distributions in table 6 have been calculated separately by sex and color.

As previously stated, a very large number of the cases were primary in the skin. The percentages were 26.0 for males and 16.0 for females. These are considerably higher than the figures for Chicago, Pittsburgh, and Detroit, 12.5, 16, and 12.3 percent for males, and 6.9, 9, and 6.2 percent for females, respectively. The one other southern area already surveyed, however, had an even higher percentage of cases in the skin group. In that area, Atlanta, Ga.,

38.5 percent of the cases among males and 23.1 percent of those among females were primary in the skin. As is well known, cancer of the skin is less common among colored people. For colored cases only 4.3 percent of the cases among males and 2.6 percent of those among females were primary in this site.

Along with skin, cancer of the buccal cavity occupies a somewhat more important position among the cases in New Orleans than it did in Chicago, Pittsburgh, and Detroit, although here again there was an even higher percentage in Atlanta.

TABLE 6.—*Percentage distribution of reported cases of cancer by sex, color, and primary site, New Orleans, 1937*

Primary site	White		Colored		Total	
	Male	Female	Male	Female	Male	Female
Buccal cavity	16.2	3.6	8.5	3.7	15.2	3.6
Lip	*9.2*	*1.2*	*2.1*	*.2*	*8.3*	*.9*
Tongue	*2.1*	*.6*	*3.7*	*.4*	*2.3*	*.5*
Mouth	*.9*	*.3*	*.5*	*.2*	*.8*	*.3*
Jaw	*.5*	*.6*	*1.1*	*.4*	*.6*	*.5*
Pharynx	*.5*	*.1*	*.5*	*.2*	*.5*	*.2*
Others	*3.1*	*.8*	*.5*	*2.2*	*2.8*	*1.2*
Digestive tract	19.1	12.0	46.3	11.8	22.6	11.9
Esophagus	*1.1*	*.2*	*5.3*	*1.1*	*1.7*	*.4*
Stomach, duodenum	*8.0*	*2.8*	*26.1*	*6.1*	*10.3*	*3.6*
Intestines	*3.4*	*5.0*	*3.2*	*1.8*	*3.4*	*4.2*
Rectum, anus	*2.8*	*1.6*	*3.2*	*1.8*	*2.8*	*1.6*
Liver, biliary passage	*1.8*	*1.0*	*3.7*	*.4*	*2.1*	*.9*
Pancreas	*1.2*	*.8*	*3.2*	*.4*	*1.4*	*.7*
Others	*.8*	*.5*	*1.6*	*.2*	*.9*	*.4*
Respiratory system	9.5	1.2	7.4	.4	9.2	1.0
Larynx	*4.8*	*.2*	*2.1*	----	*4.4*	*.1*
Lungs, pleura	*4.3*	*.7*	*5.3*	*.4*	*4.4*	*.7*
Others	*.5*	*.3*	----	----	*.4*	*.2*
Genitourinary	15.5	33.0	20.2	51.5	16.1	37.7
Uterus	----	*25.0*	----	*45.9*	----	*30.3*
Kidneys	*1.5*	*1.6*	*3.7*	*.4*	*1.8*	*1.3*
Bladder	*5.6*	*2.2*	*1.1*	*1.1*	*5.0*	*1.9*
Prostate	*6.2*	----	*9.0*	----	*6.6*	----
Others	*2.1*	*4.2*	*6.4*	*4.1*	*2.7*	*4.2*
Breast	.2	22.1	1.6	21.4	.4	22.0
Skin	29.2	20.4	4.3	2.6	26.0	16.0
Brain	1.2	1.5	1.1	----	1.2	1.1
Bones	2.4	1.1	1.6	3.3	2.3	1.6
All other sites	6.7	5.1	9.0	5.2	7.0	5.1
All sites	100.0	100.0	100.0	100.0	100.0	100.0

One other difference between New Orleans and the other cities surveyed appears in the distribution by site. There is a definitely greater proportion of cases primary in the respiratory system. Examination reveals that this reflects a real difference and that this difference comes primarily from a greater relative prevalence of cancer of the larynx. The percentage of cases in this group is more than twice as great for New Orleans as for any city previously surveyed. The reason for this higher prevalence is not immediately apparent.

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In general, the same sex and color differences prevail in the site distribution of the cases in this area as have been noted in the earlier papers. For cases among males the order of importance of sites is skin and buccal cavity, digestive tract, genitourinary, and respiratory. For cases among females two sites, genitourinary and breast, make up over half of all cases reported, and, with skin and digestive tract, constitute over 87 percent of all cases. One other difference which has been apparent in all of the cities is the greater prevalence of respiratory cancer among males than among females. This is true

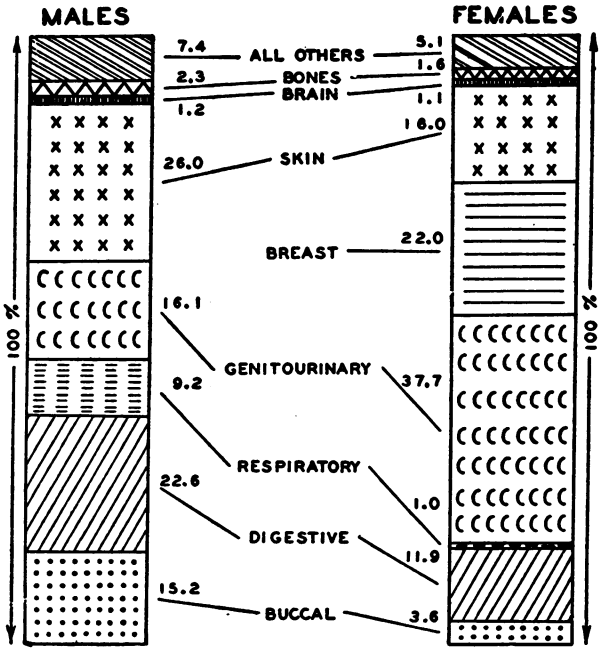

FIGURE 1.—Percentage distribution of reported cases of cancer by primary site, for males and for females, New Orleans, 1937.

of each of the specific sites in the respiratory group and is true of cancer mortality as well as of morbidity.

The site distribution of colored cases is less varied than that of white cases. Two-thirds of all cases among colored males are reported as primary in either the digestive tract or the genitourinary system. For colored females, 72.9 percent of the cases are reported as primary in either the genitourinary system (with 45 percent in one specific site, the uterus) or the breast. This concentration of cases in very few sites results partly from the fact that medical care is received by colored persons at a later stage of the disease. The resulting diagnoses of primary site may be less specific and precise because of the widespread metastases and extensions which often characterize the late stages of cancer.

AGE DISTRIBUTION OF REPORTED CANCER CASES

The percentage distribution by age of the patient of all reported cancer cases in New Orleans shows no important differences from those seen in the other cities studied. In table 7 this distribution is given separately for all cases, male, female, white, and colored. Among persons under 20 years of age there are more cases among males than females; among persons aged 20–50 a majority of the cases are among females; in the older age groups the proportions are again reversed, a larger proportion of the cases among males than among females being over 60 years of age. The immediate reason for this lies in the differences in sites most frequently involved for males and for females. This relationship of site to age is considered below.

TABLE 7.—*Percentage age distribution of all reported cases of cancer, by sex and color, New Orleans, 1937*

Age groups	Percent of cases of known age in each age group				
	All cases combined	Male	Female	White	Colored
Under 10	0.6	0.8	0.5	0.5	0.9
10–19	1.0	1.1	.9	.8	1.6
20–29	3.7	2.7	4.4	2.7	7.2
30–39	10.6	7.7	12.9	10.1	12.4
40–49	20.2	16.5	23.2	19.1	24.5
50–59	24.7	24.7	24.7	24.4	25.7
60–69	24.5	27.8	21.9	26.1	19.0
70–79	11.9	15.1	9.5	13.3	7.1
80 and over	2.7	3.6	2.0	3.0	1.6
All cases of known age	100	100	100	100	100

The age distribution of colored cases differs from that of white cases chiefly in that higher percentages of the colored cases are found in every group below 50, while in every age group above 60 there is a higher percentage of cases among white persons. This may be only a function of the age composition of the white and colored populations involved.

Between the ages of 40 and 69 are found 69.4 percent of all the cancer cases reported. Sixteen percent of the cases were among persons under 40, and 14.6 percent among persons over 70. This differs slightly from the percentage distributions in some of the other cities in that here a proportionately larger number of cases are in the younger age groups.

AGE AND PRIMARY SITE RELATIONSHIPS

In tables 8 (males) and 9 (females) the distribution of the cases is shown by age and primary site groups. The same relationships that have been noted in the earlier studies appear here. In two sites, brain and bones, there is an unusually high percentage of cases in the

younger age groups. On the other hand, cancer of the prostate and cancer of the skin are found most frequently in older persons. Cancer

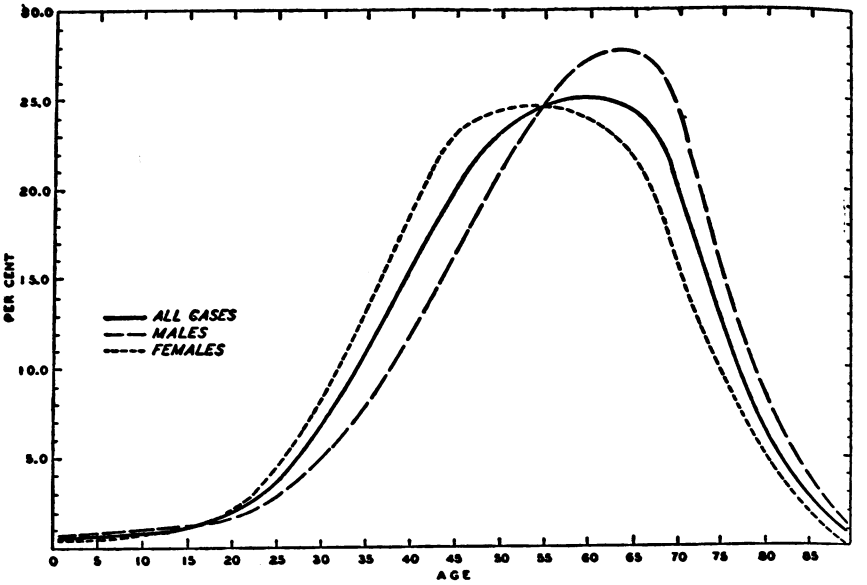

FIGURE 2.—Percentage age distribution of all reported cases of cancer by sex, New Orleans, 1937.

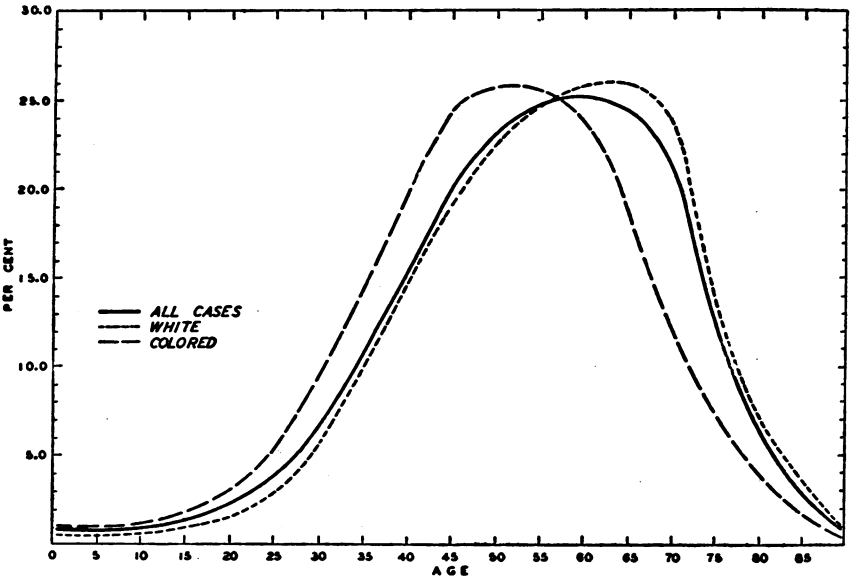

FIGURE 3.—Percentage age distribution of all reported cases of cancer by color, New Orleans, 1937.

of the respiratory system is most prevalent in the age groups from 35 to 65, 71.8 percent of the male and 71.5 percent of the female respiratory cases being found in these age groups.

TABLE 8.—*Percentage distribution of reported cases of cancer by age for each site of malignant growth, males only, New Orleans, 1937*

Primary site	Percentage in each age group									Number of cases
	Under 15	15–24	25–34	35–44	45–54	55–64	65–74	75 and over	All known ages	
Buccal cavity	0.5	0.5	5.9	14.8	21.2	35.0	15.2	6.9	100.0	203
Lip	------	.9	5.4	21.8	27.3	27.3	10.9	6.4	100.0	110
Others	1.1	------	6.5	6.5	13.9	44.1	20.4	7.5	100.0	93
Digestive tract	.6	1.0	5.1	11.6	18.7	32.8	23.8	6.4	100.0	311
Stomach	------	------	3.6	9.4	20.3	33.3	27.6	5.8	100.0	138
Intestines	------	------	8.3	12.5	16.7	27.1	22.9	12.5	100.0	48
Rectum	------	2.5	10.0	22.5	17.5	32.5	5.0	10.0	100.0	40
Others	2.4	2.4	3.5	9.4	17.6	35.3	27.0	2.4	100.0	85
Respiratory system	.8	1.6	2.4	13.7	23.4	34.7	20.2	3.2	100.0	124
Lungs	1.6	1.6	4.7	20.6	17.5	39.7	12.7	1.6	100.0	63
Others	------	1.6	------	6.6	29.5	29.5	27.9	4.9	100.0	61
Genitourinary system	1.4	.9	4.6	5.5	16.0	29.2	30.6	11.8	100.0	219
Prostate	------	------	------	------	3.4	26.1	51.2	19.3	100.0	88
Others	2.3	1.5	7.6	9.2	24.4	31.3	16.8	6.9	100.0	131
Skin	------	.7	4.8	9.5	19.0	25.5	24.2	16.3	100.0	294
Brain	------	13.3	13.3	26.7	13.3	33.4	------	------	100.0	15
Bones	3.6	17.9	3.6	10.7	32.1	21.4	10.7	------	100.0	28
All others	3.3	7.6	9.8	10.9	20.7	21.7	18.4	7.6	100.0	92
All sites	.9	1.9	5.2	10.9	19.5	30.0	22.4	9.2	100.0	1,286

TABLE 9.—*Percentage distribution of reported cases of cancer by age, for each site of malignant growth, females only, New Orleans, 1937*

Primary site	Percentage in each age group									Number of cases
	Under 15	15–24	25–34	35–44	45–54	55–64	65–74	75 and over	All known ages	
Buccal cavity	3.6	3.6	7.1	19.6	23.2	17.9	17.9	7.1	100.0	56
Digestive tract	.5	1.5	3.9	16.5	18.0	25.2	24.7	9.7	100.0	206
Stomach	------	------	4.8	22.6	11.3	17.7	33.9	9.7	100.0	62
Intestines	1.4	2.8	4.2	11.3	19.7	31.0	19.7	9.9	100.0	71
Rectum	------	3.5	6.9	17.2	27.6	13.8	24.1	6.9	100.0	29
Others	------	------	------	15.9	18.2	34.1	20.4	11.4	100.0	44
Respiratory system	------	7.1	7.1	21.4	21.5	28.6	14.3	------	100.0	14
Genitourinary system	.5	.6	9.8	21.0	28.7	24.1	12.3	3.0	100.0	665
Uterus	------	.7	10.6	22.1	29.0	25.5	11.0	1.1	100.0	538
Others	2.4	------	6.3	16.5	27.6	18.1	18.1	11.0	100.0	127
Breast	------	1.1	4.4	22.3	26.2	26.2	15.1	4.7	100.0	363
Skin	------	1.4	7.3	11.9	16.9	25.1	25.1	12.3	100.0	219
Brain	11.1	11.1	27.8	27.8	16.7	5.5	------	------	100.0	18
Bones	3.5	13.8	17.2	17.2	20.7	3.5	24.1	------	100.0	29
All others	6.3	7.6	13.9	15.2	17.7	25.3	8.9	5.1	100.0	79
All sites	.9	1.8	7.9	19.2	24.2	24.1	16.3	5.6	100.0	1,649

Another way of viewing this interrelationship of site and age is to consider the relative importance of the various sites at each age group. This shows what part of the body is most likely to be affected by cancer at any particular age (see figs. 4 and 5).

RELATIVE FATALITY OF DIFFERENT PRIMARY SITES OF CANCER

As is well known, there are sharp differences in the fatality of malignant growths, depending upon the part of the body that is

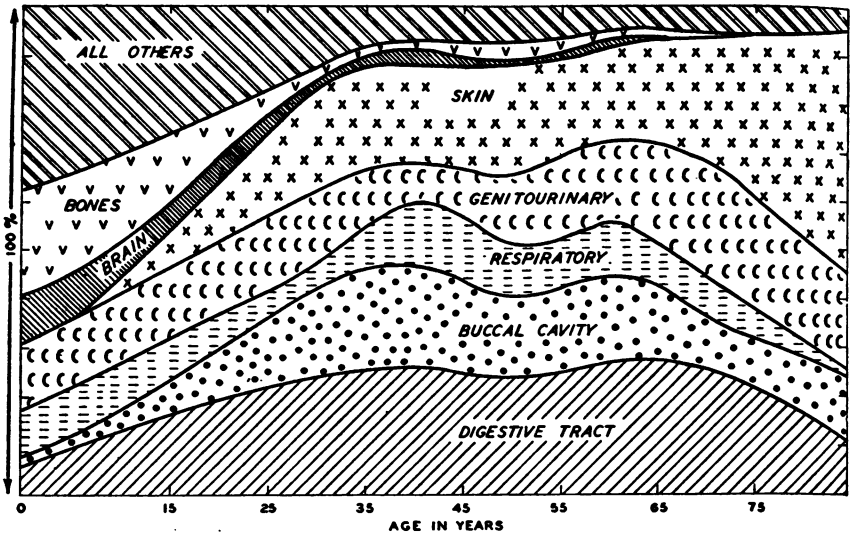

FIGURE 4.—Percentage distribution of reported cases of cancer for each age group by primary site, male cases only, New Orleans, 1937.

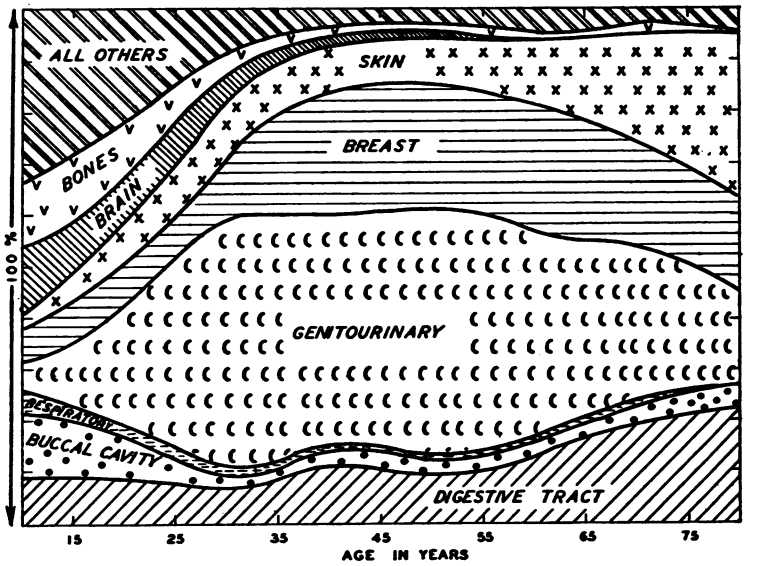

FIGURE 5.—Percentage distribution of reported cases of cancer for each age group by primary site, female cases only, New Orleans, 1937.

involved. In table 10 these differences are shown by the percentage distributions among the sites of both deaths and cases collected in the survey. If cancer of a particular site is relatively more fatal than the average, then it will constitute a greater proportion of the

deaths than of the cases; conversely, if less fatal it will constitute a smaller proportion of the deaths than of the cases. Thus, skin is a site with relatively low fatality: For males, 26 percent of the cases were primary in this site, compared with only 4 percent of the deaths; for females, 16 percent of the cases were in this site, and 2.4 percent of the deaths. On the other hand, cases primary in sites in the respiratory system and digestive tract make up a larger part of the deaths than of the cases, indicating that they are more fatal than the average. Malignant growths that are primary in the male genitourinary and female urinary systems are likewise more fatal, while cancers of the female breast and uterus are somewhat less fatal than those primary in other sites.

TABLE 10.—*Percentage distribution of all cancer deaths*[1] *and of all cancer cases reported by sex, color, and primary site, New Orleans, 1937*

	White				Total			
	Male		Female		Male		Female	
	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases
Buccal cavity, pharynx	12.5	15.4	2.4	3.3	10.4	14.5	2.5	3.1
Lip	1.8	9.2	----	1.2	1.4	8.3	----	.9
Tongue	5.0	2.1	1.2	.6	4.2	2.3	.8	.5
Mouth	.7	.9	----	.3	.6	.8	.3	.3
Jaw	1.4	.5	.4	.6	1.1	.6	.3	.5
Pharynx	1.1	.5	----	.1	1.1	.5	.3	.2
Others	2.5	2.2	.8	.5	2.0	2.0	.8	.7
Digestive tract	37.4	19.1	35.8	12.0	42.7	22.6	33.3	11.9
Esophagus	.7	1.1	.8	.2	1.7	1.6	.8	.4
Stomach, duodenum	16.0	8.0	8.9	2.8	19.8	10.3	11.6	3.6
Intestines	7.8	3.4	11.7	5.1	7.1	3.4	8.9	4.2
Rectum, anus	3.2	2.8	4.4	1.6	3.4	2.8	4.6	1.7
Liver, biliary passage	5.4	1.8	5.2	1.0	5.9	2.1	4.1	.9
Pancreas	3.2	1.2	3.2	.8	3.7	1.5	2.2	.7
Others	1.1	.8	1.6	.5	1.1	.9	1.1	.4
Respiratory system	16.0	9.5	2.4	1.2	15.2	9.2	1.6	1.0
Larynx	4.6	4.8	----	.1	4.5	4.4	----	.1
Lungs, pleura	7.8	3.0	2.4	.7	7.6	3.1	1.6	.6
Others	3.6	1.7	----	.4	3.1	1.7	----	.3
Genitourinary system	21.0	15.5	30.1	32.8	19.8	16.1	33.3	37.5
Uterus	----	----	16.5	25.1	----	----	21.9	30.3
Kidneys	4.7	1.5	3.6	1.6	4.5	1.8	2.7	1.3
Bladder	7.8	5.6	5.2	2.2	6.5	5.0	3.8	1.9
Prostate	7.8	6.2	----	----	7.7	6.6	----	----
Others	.7	2.2	4.8	3.9	1.1	2.7	4.9	4.0
Breast	----	.2	17.7	22.1	----	.4	16.8	22.0
Skin	4.6	29.2	3.6	20.4	4.0	26.0	2.4	16.0
Brain	.3	1.2	.4	1.5	.3	1.2	.3	1.1
Bones	1.8	2.4	1.2	1.1	1.4	2.3	1.1	1.6
All others	6.4	7.5	6.4	5.6	6.2	7.7	8.7	5.8
All sites	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Deaths obtained from death certificate only (i. e., with no corresponding case report) are included here.

DURATION OF CASE SINCE FIRST DIAGNOSIS

The schedule form used in reporting the cases provided for the recording of the date on which the case was first seen with cancer. The time

from this date to January 1, 1938, the end of the study year, for living cases, or to the date of death for dead cases, was considered to be the duration of the case. These durations were calculated for all cases reported and the results are listed in tables 11 and 12.

Three-fourths of all the cases (76.2 percent) had a duration of less than 1 year. Nearly half (47.7 percent) were first seen less than 6 months prior to the end of the study year. The cases that died during the year had a markedly shorter duration; 70.6 percent had a duration of less than 6 months, and 83.4 percent under 1 year. The percentage of white cases with a year or more duration is slightly higher than that of colored cases. Only 3.1 percent of the cases had been seen at least 5 years prior to the end of the study year; only 1.1 percent had been seen at least 8 years before that date. These durations for the cases in New Orleans are considerably shorter than those for the cases in the cities previously surveyed. This is probably an indication of less complete follow-up of cases successfully treated as well as later diagnosis.

TABLE 11.—*Percentage distribution of cases of cancer by months since first diagnosis, by color and vital status, New Orleans, 1937*

Months since first seen	Percentage of cases in each duration group						
	All cases	All white	All colored	Alive		Dead	
				White	Colored	White	Colored
Under 6	47.7	47.0	50.7	41.7	39.1	67.6	79.1
6–11	28.5	28.7	27.9	32.7	34.7	13.4	11.2
12–23	11.5	11.7	11.0	11.9	12.9	10.6	6.4
24–35	4.7	4.8	4.3	5.1	5.7	3.5	1.1
36–47	2.7	2.8	2.3	3.0	2.8	2.0	1.1
48–59	1.8	1.7	1.9	1.9	2.6	1.1	----
60–71	1.1	1.1	1.1	1.1	1.3	.8	.6
72–83	.6	.7	.3	.7	.2	.4	.5
84–95	.3	.3	----	.3	----	.2	----
96 and over	1.1	1.2	.5	1.5	.7	.4	----
All known durations	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of cases (known duration)	3,264	2,619	645	2,082	458	537	187

The duration of cases by primary site of the malignant growth is shown in table 12. The percentage of the cases in each duration group is shown separately for living and dead, for each of the broad site groups. Some differences are noted, similar to those seen in the earlier table comparing the fatality of various sites. Cancers of the digestive tract, respiratory system, brain, and bones tend to have especially short durations, while those of the skin, breast, buccal cavity, and genitourinary system have relatively longer recorded durations since first diagnosis. These differences are true of both the living and dead classifications. The latter group, of course, has a much shorter duration than the former.

TABLE 12.—*Percentage distribution of cancer cases by months since first diagnosis, primary site, and vital status at end of survey, New Orleans, 1937*

Primary site	Percentage of cases in each duration (months since first seen) group												Number of cases
	Under 6	6–11	12–17	18–23	24–29	30–35	36–41	42–47	48–53	54–59	60 and over	Total	
Buccal cavity:													
Living	35.3	32.4	10.4	2.9	5.8	2.9	1.6	2.9	2.1	0.8	2.9	100.0	241
Dead	56.5	19.6	------	4.4	4.4	4.3	------	2.2	4.3	------	4.3	100.0	46
Digestive tract:													
Living	44.3	44.0	5.2	1.4	2.1	.7	------	.3	.3	.3	1.4	100.0	291
Dead	84.5	7.5	4.0	1.6	.4	.4	------	.8	------	.4	.4	100.0	252
Respiratory system:													
Living	44.3	33.0	9.2	4.1	2.1	3.1	2.1	------	------	------	2.1	100.0	97
Dead	77.8	14.8	3.7	------	1.8	------	1.9	------	------	------	------	100.0	54
Genitourinary system:													
Living	41.1	35.6	6.9	4.9	3.1	1.3	.4	1.4	1.7	1.0	2.6	100.0	710
Dead	67.3	13.9	10.6	2.9	1.4	1.4	1.0	------	------	------	1.5	100.0	208
Breast:													
Living	30.6	31.9	9.9	7.8	5.1	3.6	4.8	1.2	1.2	.9	3.0	100.0	333
Dead	43.2	18.9	10.8	1.4	5.4	5.4	2.7	4.0	------	1.4	6.8	100.0	74
Skin:													
Living	44.6	26.8	7.3	3.8	3.0	2.4	2.5	1.4	1.9	.3	6.0	100.0	632
Dead	48.4	9.7	19.3	9.7	------	------	6.5	------	6.4	------	------	100.0	31
Brain [1]	46.0	45.9	5.4	------	------	2.7	------	------	------	------	------	100.0	37
Bones [1]	46.0	23.8	15.9	4.7	------	------	3.2	------	1.6	1.6	3.2	100.0	63
All others:													
Living	52.2	29.0	10.7	.6	1.9	.6	------	1.3	.6	.6	2.5	100.0	159
Dead	75.0	16.7	5.5	2.8	------	------	------	------	------	------	------	100.0	36
All sites:													
Living	41.2	33.0	8.0	4.1	3.3	2.0	1.7	1.3	1.4	.7	3.3	100.0	2,540
Dead	70.6	12.8	7.2	2.3	1.5	1.4	1.0	.8	.6	.3	1.5	100.0	724

[1] Too few cases to separate by vital status.

CASES UNDER OBSERVATION ONLY

The preceding discussion has concerned itself with all cancer cases reported. However, there are certain groups that merit special consideration. One such group consists of the cases which had received their last treatment for cancer prior to the survey year (1937) but which had been seen in that year for check-up subsequent to the last treatment. These cases constitute that part of the "cured" cases which are kept under observation to guard against recurrence. This group is here called the group "under observation only."

Only 4.3 percent of all cases reported in New Orleans were under observation only. This is considerably lower than the percentages that were under observation in the other cities surveyed. In Detroit 20.5 percent of the cases were in this group, in Atlanta 24.5 percent, in Pittsburgh 15.0 percent, and in Chicago 8.4 percent. When the cases under observation only are examined by reporting source it is found that this unusually low figure for New Orleans results from the very few cases under observation reported by the hospitals. There were 11.7 percent of the doctors' cases in the group under observation only, while only 2.5 percent of the hospital cases were in this group. There is also a marked difference between the percentages of white and colored cases in this group. The figure for colored is 1.9 percent as

compared with 4.9 percent for white. Apparently very few of the colored cases are observed subsequent to successful treatment.

TABLE 13.—*Percentages that cases under observation only are of all cases of cancer reported, by sex, color, and reporting source, New Orleans, 1937*

Class of case	Percentage of all cases					Percentage reported by—		
	Male	Female	White	Colored	Total	Doctor(s) only	Hospital(s) only	Doctor(s) and hospital(s)
Under observation only	4.4	4.2	4.9	1.9	4.3	11.7	2.5	
Treated in 1937	95.6	95.8	95.1	98.1	95.7	88.3	97.5	100.0
All cases	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The number of these cases, 141, is too small to permit detailed break-downs by age and site. The actual numbers have been listed in the appendix, but no percentage distributions have been computed except for the distribution of the cases by site. In table 14 this distribution is compared with that of treated cases. The differences stand out clearly. The cases under observation only are concentrated in three groups—skin, breast, and genitourinary system. These three groups include over 78 percent of all the cases under observation only. The breast and genitourinary cases are nearly all among females, while most of the skin cases are in males.

TABLE 14.—*Percentage site distribution of cancer cases under observation only during the study year and of cases treated, New Orleans, 1937*

Primary site	Percentage in each site group		Primary site	Percentage in each site group	
	Cases under observation only	Treated cases		Cases under observation only	Treated cases
Buccal cavity	9.9	8.7	Brain	.7	1.2
Digestive tract	4.3	17.2	Bones	1.4	1.9
Respiratory system [1]		4.8	All others	5.7	6.0
Genitourinary system	14.2	28.7			
Breast	15.6	12.3	All sites	100.0	100.0
Skin	48.2	19.2			

[1] There were no cases of respiratory cancer in the group under observation only.

In appendix tables 13, 14, and 15, the cases under observation only are listed by months since cessation of treatment. This time is calculated up to January 1, 1937, the beginning of the study year. Thus, if the cases were still alive at the end of the study year (a year during which they had no treatment), the duration was 1 year longer than listed here for each of the cases. Considering the duration up to the beginning of the study year only, there were 59 cases with a duration of over 1 year without treatment prior to that date. There were 12 cases with over 5 years duration without treatment, and 6 cases with a duration of over 8 years.

CANCER CASES FIRST SEEN IN 1937

The strict meaning of incidence of a disease refers to the number of persons "coming down with" the disease in a given period of time. In a consideration of this problem it is necessary to exclude those cases which originated prior to the period of time under consideration. In table 15, only the cancer cases that originated in 1937 (that is to say, were first diagnosed in 1937) are considered. There were 2,349 such cases, 1,062 in males and 1,287 in females. Just as a ratio of all

TABLE 15.—*Number of cancer cases first seen in 1937, by sex, color, vital status, and residence, New Orleans*

Vital status (as of Jan. 1, 1938)	Number of cases first seen in 1937									
	White				Colored				Total	
	Resident		Nonresident		Resident		Nonresident			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Alive	268	397	191	185	32	96	25	44	516	722
Dead	141	128	67	30	35	63	29	20	272	241
Death certificate located	*134*	*118*	*60*	*27*	*34*	*59*	*26*	*20*	*254*	*224*
Death certificate not located	*7*	*10*	*7*	*3*	*1*	*4*	*3*	*0*	*18*	*17*
Unknown	136	147	104	82	11	56	23	39	274	324
Total reported	545	672	362	297	78	215	77	103	1,062	1,287
Cases from death certificate only	25	33	-------	-------	8	20	-------	-------	33	53
Total new cases among residents[1]	570	705	-------	-------	86	235	-------	-------	656	940
Total death certificates of residents[2]	213	220	-------	-------	48	98	-------	-------	261	318
Ratio of resident cases to deaths	2.7	3.2	-------	-------	1.8	2.4	-------	-------	2.5	3.0

[1] Includes cases from death certificate only.
[2] Irrespective of whether the case was first seen in 1937.

resident cases to deaths was computed earlier in this paper, a similar ratio can be calculated for these cases. This ratio, using resident cases first seen in 1937, and all resident deaths, is 2.8 for all cases, 2.5 for males and 3.0 for females. The 1930 cancer death rate used in conjunction with this ratio yields an approximate case incidence rate of 394 per 100,000. Since this is based on the 1930 death rate and since the cancer death rate has been increasing almost everywhere, it seems that this is a conservative estimate and that, therefore, about 400 new cases of cancer for every 100,000 of the population are seen in this area every year. This is considerably higher than the similar rates for the northern areas surveyed. In Detroit, for example, the incidence rate was estimated to be at least 126 per 100,000. The sharp difference in these rates, just as in the prevalence rates discussed earlier, arises, at least in part, from the large number of skin cancers which constitute 23 percent of all the cancer cases among males and

16 percent of all the cases among females first seen in 1937 in New Orleans.

Earlier in this paper the prevalence rate of all cases of cancer, observed or treated, was found to be somewhat lower in New Orleans than the rate established for Atlanta, Ga. It was suggested that this difference arose, at least in part, from the less complete follow-up of cancer cases subsequent to successful treatment in New Orleans as compared to Atlanta. The ratios of cases first seen in 1937 to all deaths, for residents only, bear out this conclusion. This ratio for Atlanta is 2.7, slightly lower than the New Orleans ratio (2.8), and so, since the death rate is higher in New Orleans, the incidence rate of cancer is likewise higher than in Atlanta, as well as higher than in any of the northern cities surveyed.

In general the site distribution of the cases first seen in 1937 resembles that of all cases reported. Among the cases first seen in 1937, there is a larger proportion in sites with relatively high fatality rates. For example, cancer of the digestive tract constitutes 22.6 percent of all cases reported among males, but it makes up 26.5 percent of all such cases first seen in 1937. Conversely, cases in sites such as skin, breast, and genitourinary system, which have a lower fatality and a longer duration, make up a smaller proportion of the cases first seen in 1937 than they do of all cases combined. The age distribution of the cases first diagnosed in 1937 is not significantly different from that of all cases combined.

TABLE 16.—*Percentage distribution of cancer cases first seen in 1937, by primary site and sex, New Orleans*

Primary site	Percentage of cases in each site group		Primary site	Percentage of cases in each site group	
	Male	Female		Male	Female
Buccal cavity	13.2	3.3	Brain	1.5	1.3
Digestive tract	26.5	13.6	Bones	2.3	1.5
Respiratory system	9.4	1.2	All others	7.4	5.7
Genitourinary system	15.9	39.4			
Breast	.5	18.2	All sites	100.0	100.0
Skin	23.3	15.8			

TABLE 17.—*Percentage distribution of cancer cases first seen in 1937, by age and sex, New Orleans*

Age	Percentage of cases in each age group		Age	Percentage of cases in each age group	
	Male	Female		Male	Female
Under 15	0.9	0.9	55–64	29.9	22.7
15–24	2.4	2.0	65–74	22.3	15.7
25–34	5.3	9.5	75 and over	8.2	5.7
35–44	11.1	19.9			
45–54	19.9	23.6	All known ages	100.0	100.0

SUMMARY

The fifth area studied in a survey of the incidence and prevalence of cancer, New Orleans, La., yielded 3,277 individual cases of malignant neoplasms seen by doctors or hospitals in that area in the year 1937. There were 814 deaths from cancer in that year in New Orleans. The ratio of resident cases to resident deaths is 3.6 for all cases, 3.3 for males and 3.8 for females. On the basis of the 1930 cancer death rate this would represent a prevalence rate of about 500 per 100,000 population. This is considerably higher than the rates for Chicago, Pittsburgh, or Detroit, and somewhat higher than the rate in Atlanta.

Over two-thirds of all the cases in New Orleans were reported by hospitals only. There was only one report on 86 percent of all cases. Proportionately fewer colored than white cases were reported by doctors rather than by hospital clinics. Over half, 57.5 percent, of the doctors reported having seen no case of cancer in 1937. The 2.8 percent of the doctors who had over 10 cases each reported over 50 percent of all the doctors' cases. The one-third of the hospitals, each of which reported over 10 cases, accounted for 98 percent of all the hospital cases reported.

A microscopic examination of tissue was used to confirm the diagnosis in only 51.7 percent of the cases. This is a considerably smaller proportion of microscopic tests than in any of the northern cities surveyed.

New Orleans, like Atlanta, had a large percentage of cases of cancer primary in the skin. There were 29.2 percent of cases among white males, and 20.4 percent among white females in this group. This is very much higher than the percentages for Chicago, Detroit, and Pittsburgh. Another site more common in New Orleans than in the cities previously surveyed is the larynx. The most important sites for male cases are skin and buccal cavity, digestive tract, genitourinary system, and respiratory system. For females, two sites, genitourinary and breast, make up over half of the cases, and with skin and digestive tract constitute 87 percent of all cases. The sites of cancer among colored persons fall chiefly into a few of the site groups, three sites, genitourinary, breast, and digestive tract, accounting for over two-thirds of all cases.

The age distribution of the cancer cases reported in New Orleans is similar to that of the other cities surveyed. About 39 percent of all the cases are among persons over 60 years of age. Over 5 percent of the persons with cancer were under 30 years of age. There is a larger percentage of cases in the age groups from 20 to 50 among females than among males. The colored cases tend to be younger than the white cases.

There are marked differences in the age distributions by site of the cancer. Cancer of the skin becomes increasingly more important as age increases. Bones, brain, and "all other sites," however, are important sites of malignant growths only at relatively young ages. The pattern of distribution by age and site is substantially the same as has been observed in the earlier studies.

The durations of the cases in New Orleans were somewhat shorter than those found in the other cities surveyed. Nearly half, 47.7 percent, of the cases had been first seen less than 6 months prior to the end of the study year. The longest durations occur in those site groups which have the lowest fatality—skin, breast, and female genital system.

More than 95 percent of the cases reported in this area had received some treatment for cancer in the study year. The proportion of cases that were under observation only was 4.3 percent, lower than in any of the earlier studies. This resulted largely from the low percentage of cases under observation reported by hospitals. Of the cases reported by hospitals, less than 3 percent were under observation.

There were 2,349 cases of cancer in New Orleans that were first seen in 1937. This represents a ratio of cases to deaths of 2.8. Using the 1930 cancer death rate as a basis this would indicate an incidence rate of cancer of 394 per 100,000. This is significantly higher than the rates estimated for any of the areas previously surveyed.

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Appendix

The tables listed here contain the actual figures on which the tables of the paper proper are based. They are numbered to correspond with the related tables in the text.

TABLE 2.—*Number of cases of cancer reported by various sources and by number of sources, by sex and color, New Orleans, 1937*

Reported by	Actual number of cases								
	Both sexes by color		All colors by sex		White		Colored		All cases combined
	White	Colored	Male	Female	Male	Female	Male	Female	
Nature of source									
Doctor(s) only	672	62	336	398	325	347	11	51	734
Hospital(s) only	1,651	561	970	1,242	799	852	171	390	2,212
Doctor(s) and hospital(s)	308	23	144	187	138	170	6	17	331
All sources	2,631	646	1,450	1,827	1,262	1,369	188	458	3,277
Number of sources									
1 source only	2,206	615	1,247	1,574	1,068	1,138	179	436	2,821
2 sources only	361	28	174	215	166	195	8	20	389
3 or more sources	64	3	29	38	28	36	1	2	67
All sources	2,631	646	1,450	1,827	1,262	1,369	188	458	3,277

TABLE 3.—*Number of reported cases of cancer by primary site and reporting agency, with numbers of unduplicated cases reported, New Orleans, 1937*

Primary site	Reported by doctor only		Reported by hospital only		Reported by doctor and hospital	All reports	
	Total cases	Unduplicated cases	Total cases	Unduplicated cases	Total cases	Total cases	Unduplicated cases
Buccal cavity	51	48	212	203	24	287	251
Digestive tract	113	108	371	360	62	546	468
Respiratory system	47	36	83	80	22	152	116
Genitourinary system	136	125	667	647	118	921	772
Breast	66	60	271	254	70	407	314
Skin	263	258	388	376	18	669	634
Brain	8	8	28	28	1	37	36
Bones	15	13	44	42	4	63	55
All others	35	35	148	140	12	195	175
All sites	734	691	2,212	2,130	331	3,277	2,821

TABLE 4.—*Number of sources reporting specified numbers of cancer cases, by source reporting, with actual number of cases [1] so reported, New Orleans, 1937*

Number of cases reported by each source	Doctors		Hospitals		All sources	
	Number of sources reporting	Actual number of cases reported	Number of sources reporting	Actual number of cases reported	Number of sources reporting	Actual number of cases reported
No case	308	0	17	0	325	0
1 case	84	84	3	3	87	87
2 cases	53	106			53	106
3 cases	27	81	1	3	28	84
4 cases	11	44			11	44
5 cases	15	75			15	75
5 or less cases	*190*	*390*	*4*	*6*	*194*	*396*
6 to 10 cases	23	173	2	16	25	189
10 or less cases	*213*	*563*	*6*	*22*	*219*	*585*
11 to 20 cases	6	91	3	41	9	132
Over 20 cases	9	480	9	3,315	18	3,795
Any number of cases	228	1,134	18	3,378	246	4,512
Total reporting	536	1,134	35	3,378	571	[1] 4,512

[1] All cases reported are listed here, including duplicate reportings of the same case. All duplications were later eliminated.

TABLE 5.—*Number of cancer cases reported, and number with diagnoses microscopically confirmed, by primary site and reporting source, New Orleans, 1937*

Primary site	Number of cases reported					
	By doctors only		By a hospital [1]		By all sources	
	Total	With microscopic diagnosis	Total	With microscopic diagnosis	Total	With microscopic diagnosis
Buccal cavity	51	17	236	151	287	168
Digestive tract	113	26	433	154	546	180
Respiratory system	47	27	105	59	152	86
Genitourinary system	136	74	785	505	921	579
Breast	66	30	341	240	407	270
Skin	263	30	406	230	669	260
Brain	8	2	29	6	37	8
Bones	15	10	48	32	63	42
All other sites	35	12	160	88	195	100
All sites	734	228	2,543	1,465	3,277	1,693

[1] With or without a duplicate report from a doctor.

TABLE 6.—*Number of reported cases of cancer, by sex, color, and primary site, New Orleans, 1937*

Primary site	White		Colored		Total	
	Male	Female	Male	Female	Male	Female
Buccal cavity	205	49	16	17	221	66
Lip	*116*	*16*	*4*	*1*	*120*	*17*
Tongue	*26*	*8*	*7*	*2*	*33*	*10*
Mouth	*11*	*4*	*1*	*1*	*12*	*5*
Jaw	*7*	*8*	*2*	*2*	*9*	*10*
Pharynx	*6*	*2*	*1*	*1*	*7*	*3*
Others	*39*	*11*	*1*	*10*	*40*	*21*
Digestive tract	241	164	87	54	328	218
Esophagus	*14*	*3*	*10*	*5*	*24*	*8*
Stomach, duodenum	*101*	*38*	*49*	*28*	*150*	*66*
Intestines	*43*	*69*	*6*	*8*	*49*	*77*
Rectum, anus	*55*	*22*	*6*	*8*	*41*	*30*
Liver, biliary passage	*23*	*14*	*7*	*2*	*30*	*16*
Pancreas	*15*	*11*	*6*	*2*	*21*	*13*
Others	*10*	*7*	*3*	*1*	*13*	*8*
Respiratory system	120	16	14	2	134	18
Larynx	*60*	*2*	*4*	----	*64*	*2*
Lungs, pleura	*54*	*10*	*10*	*2*	*64*	*12*
Others	*6*	*4*	----	----	*6*	*4*
Genitourinary	195	452	38	236	233	688
Uterus	----	*343*	----	*210*	----	*553*
Kidneys	*19*	*22*	*7*	*2*	*26*	*24*
Bladder	*71*	*30*	*2*	*5*	*73*	*35*
Prostate	*78*	----	*17*	----	*95*	----
Others	*27*	*57*	*12*	*19*	*39*	*76*
Breast	3	303	3	98	6	401
Skin	369	280	8	12	377	292
Brain	15	20	2	----	17	20
Bones	30	15	3	15	33	30
All other sites	84	70	17	24	101	94
All sites	1,262	1,369	188	458	1,450	1,827

TABLE 7.—*Number of reported cases of cancer by age of patient, by sex, and by color, New Orleans, 1937*

Age group	Number of cases				
	Male	Female	White	Colored	All cases combined
Under 5	5	5	6	4	10
5–9	5	3	6	2	8
10–14	1	6	6	1	7
15–19	13	9	13	9	22
20–24	11	20	19	12	31
25–29	24	52	42	34	76
30–34	43	79	84	38	122
35–39	56	134	149	41	190
40–44	84	183	189	78	267
45–49	128	199	249	78	327
50–54	123	200	247	76	323
55–59	195	208	315	88	403
60–64	191	190	318	63	381
65–69	167	172	281	58	339
70–74	121	97	183	35	218
75–79	73	59	122	10	132
80–84	29	25	47	7	54
85–89	15	6	19	2	21
90–94	----	1	1	----	1
95–99	2	----	1	1	2
100 and over	----	1	1	----	1
Unknown	164	178	333	9	342
All ages	1,450	1,827	2,631	646	3,277

TABLE 8.—*Number of cancer cases reported by primary site and age group, males only, New Orleans, 1937*

Primary site	Under 15	15-24	25-34	35-44	45-54	55-64	65-74	75 and over	Unknown	All ages
Buccal cavity	1	1	12	30	43	71	31	14	18	221
Lip	*0*	*1*	*6*	*24*	*30*	*30*	*12*	*7*	*10*	*120*
Others	*1*	*0*	*6*	*6*	*13*	*41*	*19*	*7*	*8*	*101*
Digestive tract	2	3	16	36	58	102	74	20	17	328
Stomach	*0*	*0*	*5*	*13*	*28*	*46*	*38*	*8*	*12*	*150*
Intestines	*0*	*0*	*4*	*6*	*8*	*13*	*11*	*6*	*1*	*49*
Rectum	*0*	*1*	*4*	*9*	*7*	*13*	*9*	*4*	*1*	*41*
Others	*2*	*2*	*3*	*8*	*15*	*30*	*23*	*2*	*3*	*88*
Respiratory system	1	2	3	17	29	43	25	4	10	134
Lungs	*1*	*1*	*3*	*13*	*11*	*25*	*8*	*1*	*1*	*64*
Others	*0*	*1*	*0*	*4*	*18*	*18*	*17*	*3*	*9*	*70*
Genitourinary system	3	2	10	12	35	64	67	26	14	233
Prostate	*0*	*0*	*0*	*0*	*3*	*23*	*45*	*17*	*7*	*95*
Others	*3*	*2*	*10*	*12*	*32*	*41*	*22*	*9*	*7*	*138*
Skin	0	2	14	28	56	75	71	48	83	377
Brain	0	2	2	4	2	5	0	0	2	17
Bones	1	5	1	3	9	6	3	0	5	33
Breast	0	2	0	0	0	2	1	0	1	6
All others	3	5	9	10	19	18	16	7	14	101
All sites	11	24	67	140	251	386	288	119	164	1,450

TABLE 9.—*Number of cancer cases reported, by primary site and age group, females only, New Orleans, 1937*

Primary site	Under 15	15-24	25-34	35-44	45-54	55-64	65-74	75 and over	Unknown	All ages
Buccal cavity	2	2	4	11	13	10	10	4	10	66
Lip	*0*	*0*	*1*	*2*	*4*	*1*	*3*	*1*	*5*	*17*
Others	*2*	*2*	*3*	*9*	*9*	*9*	*7*	*3*	*5*	*49*
Digestive tract	1	3	8	34	37	52	51	20	12	218
Stomach	*0*	*0*	*3*	*14*	*7*	*11*	*21*	*6*	*4*	*66*
Intestines	*1*	*2*	*3*	*8*	*14*	*22*	*14*	*7*	*6*	*77*
Rectum	*0*	*1*	*2*	*5*	*8*	*4*	*7*	*2*	*1*	*30*
Others	*0*	*0*	*0*	*7*	*8*	*15*	*9*	*5*	*1*	*45*
Respiratory system	0	1	1	3	3	4	2	0	4	18
Lungs	*0*	*0*	*0*	*3*	*3*	*4*	*1*	*0*	*1*	*12*
Others	*0*	*1*	*1*	*0*	*0*	*0*	*1*	*0*	*3*	*6*
Genitourinary system	3	4	65	140	191	160	82	20	23	688
Uterus	*0*	*4*	*57*	*119*	*156*	*137*	*59*	*6*	*15*	*553*
Others	*3*	*0*	*8*	*21*	*35*	*23*	*23*	*14*	*8*	*135*
Breast	0	4	16	81	95	95	55	17	38	401
Skin	0	3	16	26	37	55	55	27	73	292
Brain	2	2	5	5	3	1	0	0	2	20
Bones	1	4	5	5	6	1	7	0	1	30
All others	5	6	11	12	14	20	7	4	15	94
All sites	14	29	131	317	399	398	269	92	178	1,827

TABLE 10.—*Number of recorded cancer deaths[1] with corresponding number of reported cases, by color, sex, and primary site, New Orleans, 1937*

Primary site	White				Total			
	Male		Female		Male		Female	
	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases
Buccal cavity, pharynx	35	194	6	45	37	210	9	57
Lip	5	116	---	16	5	120	---	17
Tongue	14	26	3	8	15	33	3	10
Mouth	2	11	---	4	2	12	1	5
Jaw	4	7	1	3	4	9	1	10
Pharynx	3	6	---	2	4	7	1	3
Others	7	28	2	7	7	29	3	12
Digestive tract	105	241	89	164	151	328	123	218
Esophagus	2	14	2	3	6	24	3	8
Stomach, duodenum	45	101	22	38	70	150	45	66
Intestines	22	43	29	69	25	49	33	77
Rectum, anus	9	35	11	22	12	41	17	30
Liver, biliary passage	15	23	13	14	21	30	15	16
Pancreas	9	15	8	11	13	21	8	13
Others	3	10	4	7	4	13	4	8
Respiratory system	45	120	6	16	54	134	6	18
Larynx	13	60	---	2	16	64	---	2
Lungs, pleura	22	38	6	9	27	45	6	11
Others	10	22	---	5	11	25	---	5
Genitourinary system	59	195	75	449	70	233	123	685
Uterus	---	---	41	343	---	---	81	553
Kidneys	13	19	9	22	16	26	10	24
Bladder	22	71	13	50	23	73	14	35
Prostate	22	78	---	---	27	95	---	---
Others	2	27	12	54	4	39	18	73
Breast	---	3	44	303	---	6	62	401
Skin	13	369	9	280	14	377	9	292
Brain	1	15	1	20	1	17	1	20
Bones	5	30	3	15	5	33	4	30
All others	18	95	16	77	22	112	32	106
All sites	281	1,262	249	1,369	354	1,450	369	1,827

[1] Cancer deaths include those which were not reported as cases.

TABLE 11.—*Number of reported cases of cancer by months since first diagnosis, color, and vital status, New Orleans, 1937*

Months since first diagnosis	Vital status				Total		All cases
	Alive[1]		Dead		White	Colored	
	White	Colored	White	Colored			
Under 6	867	179	363	148	1,230	327	1,557
6-11	680	159	72	21	752	180	932
12-17	167	37	42	10	209	47	256
18-23	82	22	15	2	97	24	121
24-29	67	16	9	2	76	18	94
30-35	40	10	10	---	50	10	60
36-41	37	6	7	---	44	6	50
42-47	26	7	4	2	30	9	39
48-53	25	10	4	---	29	10	39
54-59	15	2	2	---	17	2	19
60-65	11	6	2	---	13	6	19
66-71	13	---	2	1	15	1	16
72-77	8	1	2	1	10	2	12
78-83	7	---	---	---	7	---	7
84-89	4	---	1	---	5	---	5
90-95	3	---	---	---	3	---	3
96 and over	30	3	2	---	32	3	35
Unknown	8	1	4	---	12	1	13
Total	2,090	459	541	187	2,631	646	3,277

[1] There were 779 cases reported as of "unknown" vital status. These cases largely represent the reports of 2 radiologists who listed all their cases (except known dead ones) as unknown. Since they were alive on the date in 1937 on which they were last seen, and since no cancer death certificate was found for them, they are here included with the "alive" group.

TABLE 12a.—*Number of reported living[1] cases of cancer, by months since first diagnosis and primary site, New Orleans, 1937*

Primary site	Months since first diagnosis												
	Under 6	6–11	12–17	18–23	24–29	30–35	36–41	42–47	48–53	54–59	60 and over	Unknown	Total
Buccal cavity, pharynx	85	78	25	7	14	7	4	7	5	2	7	----	241
Lip	*50*	*41*	*15*	*5*	*6*	*4*	*2*	*4*	*2*	*1*	*2*	----	*132*
Tongue	*5*	*13*	*2*	----	*2*	----	*1*	*1*	*1*	----	*1*	----	*26*
Mouth	*3*	*7*	*2*	----	----	----	----	----	----	----	*1*	----	*13*
Jaw	*5*	*4*	*2*	----	----	*2*	----	*1*	----	----	*1*	----	*15*
Pharynx	*6*	*1*	*1*	----	----	*1*	----	----	----	----	----	----	*9*
Others	*16*	*12*	*3*	*2*	*6*	----	*1*	*1*	*2*	*1*	*2*	----	*46*
Digestive tract	129	128	15	4	6	2	----	1	1	1	4	2	293
Esophagus	*11*	*10*	----	----	----	----	----	----	----	----	----	----	*21*
Stomach, duodenum	*50*	*71*	*3*	*2*	*1*	*1*	----	----	----	----	*1*	----	*129*
Intestines	*34*	*19*	*7*	*2*	*2*	*1*	----	*1*	----	----	*1*	*1*	*68*
Rectum, anus	*18*	*18*	*3*	----	*1*	----	----	----	----	*1*	*2*	*1*	*44*
Liver, biliary passage	*5*	*6*	*1*	----	*1*	----	----	----	----	----	----	----	*13*
Pancreas	*7*	*2*	----	----	*1*	----	----	----	*1*	----	----	----	*11*
Others	*4*	*2*	*1*	----	----	----	----	----	----	----	----	----	*7*
Respiratory system	43	32	9	4	2	3	2	----	----	----	2	1	98
Larynx	*17*	*19*	*4*	*3*	*1*	*3*	*1*	----	----	----	*2*	*1*	*51*
Lungs, pleura	*20*	*9*	*5*	*1*	*1*	----	*1*	----	----	----	----	----	*37*
Others	*6*	*4*	----	----	----	----	----	----	----	----	----	----	*10*
Genitourinary system	292	253	49	35	22	9	3	10	12	7	18	----	710
Uterus	*184*	*175*	*34*	*24*	*16*	*8*	*2*	*6*	*7*	*7*	*9*	----	*472*
Kidneys	*7*	*10*	*1*	----	*1*	----	----	----	----	----	*1*	----	*20*
Bladder	*35*	*19*	*5*	*3*	*4*	----	----	*1*	*1*	----	*2*	----	*70*
Prostate	*23*	*25*	*4*	*5*	----	----	*1*	*1*	*2*	----	*2*	----	*63*
Others	*43*	*24*	*5*	*3*	*1*	*1*	----	*2*	*2*	----	*4*	----	*85*
Breast	102	106	33	26	17	12	16	4	4	3	10	----	333
Skin	282	169	46	24	19	15	16	9	12	2	38	6	638
Brain	11	16	2	----	----	1	----	----	----	----	----	----	30
Bones	19	11	8	3	----	----	2	----	1	1	2	----	47
All others	83	46	17	1	3	1	----	2	1	1	4	----	159
All sites	1,046	839	204	104	83	50	43	33	36	17	85	9	2,549

[1] Cases reported as "vital status unknown" are included here.

TABLE 12b.—*Number of reported dead cases of cancer, by months since first diagnosis and primary site, New Orleans, 1937*

Primary site	Months since first diagnosis												
	Under 6	6–11	12–17	18–23	24–29	30–35	36–41	42–47	48–53	54–59	60 and over	Unknown	Total
Buccal cavity, pharynx	26	9	-----	2	2	2	-----	1	2	-----	2	-----	46
Lip	3	-----	-----	1	-----	-----	-----	1	-----	-----	-----	-----	5
Tongue	7	8	-----	-----	-----	-----	-----	-----	1	-----	1	-----	17
Mouth	1	1	-----	-----	1	-----	-----	-----	1	-----	-----	-----	4
Jaw	4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	4
Pharynx	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Others	10	-----	-----	1	1	2	-----	-----	-----	-----	1	-----	15
Digestive tract	213	19	10	4	1	1	-----	2	-----	1	1	1	253
Esophagus	10	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	11
Stomach, duodenum	76	7	2	2	-----	-----	-----	-----	-----	-----	-----	-----	87
Intestines	49	4	3	1	-----	-----	-----	1	-----	-----	-----	-----	58
Rectum, anus	19	1	3	-----	1	1	-----	-----	-----	1	-----	1	27
Liver, biliary passage	28	3	1	1	-----	-----	-----	-----	-----	-----	-----	-----	33
Pancreas	22	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	23
Others	9	4	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	14
Respiratory system	42	8	2	-----	1	-----	1	-----	-----	-----	-----	-----	54
Larynx	10	3	1	-----	1	-----	-----	-----	-----	-----	-----	-----	15
Lungs, pleura	32	5	1	-----	-----	-----	1	-----	-----	-----	-----	-----	39
Others	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Genitourinary system	140	29	22	6	3	3	2	-----	-----	-----	3	3	211
Uterus	46	14	13	4	1	-----	1	-----	-----	-----	1	1	81
Kidneys	26	2	1	-----	1	-----	-----	-----	-----	-----	-----	-----	30
Bladder	28	2	2	1	-----	2	-----	-----	-----	-----	1	2	38
Prostate	20	6	3	1	1	1	-----	-----	-----	-----	-----	-----	32
Others	20	5	3	-----	-----	-----	1	-----	-----	-----	1	-----	30
Breast	32	14	8	1	4	4	2	3	-----	1	5	-----	74
Skin	15	3	6	3	-----	-----	2	-----	2	-----	-----	-----	31
Brain	6	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	7
Bones	10	4	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	16
All others	27	6	2	1	-----	-----	-----	-----	-----	-----	-----	-----	36
All sites	511	93	52	17	11	10	7	6	4	2	11	4	728

TABLE 13.—*Number of cancer cases under observation only during study year, by months since last treated, sex, and color, and by reporting source, New Orleans, 1937*

Months since last treated	Number of cases under observation only							Number of cases by reporting source [1]	
	All		White		Colored		Total	Doctors only	Hospitals only
	Male	Female	Male	Female	Male	Female			
Under 6	13	15	13	14	-----	1	28	10	18
6–11	8	9	8	7	-----	2	17	8	9
12–17	2	7	2	6	-----	1	9	4	5
18–23	9	4	8	2	1	2	13	6	7
24–29	2	6	2	4	-----	2	8	1	7
30–35	2	3	2	2	-----	1	5	2	3
36–41	3	4	3	3	-----	1	7	3	4
42–47	1	1	1	1	-----	-----	2	1	1
48–53	1	-----	1	-----	-----	-----	1	1	-----
54–59	2	-----	2	-----	-----	-----	2	2	-----
60–65	-----	1	-----	1	-----	-----	1	1	-----
66–71	-----	1	-----	1	-----	-----	1	1	-----
72–77	-----	-----	-----	-----	-----	-----	-----	-----	-----
78–83	-----	-----	-----	-----	-----	-----	-----	-----	-----
84–89	-----	4	-----	4	-----	-----	4	4	-----
90–95	-----	-----	-----	-----	-----	-----	-----	-----	-----
96 and over	3	3	3	2	-----	1	6	5	1
Unknown	18	19	18	19	-----	-----	37	37	-----
Total	64	77	63	66	1	11	141	86	55

[1] None of the cases under observation only were reported by both doctor and hospital.

TABLE 14.—*Number of cancer cases that were under observation only during the study year, by months since last treated and primary site, with the number of cases treated, and the total number reported, New Orleans, 1937*

Months since last treated	Primary site									All sites combined
	Buccal cavity	Digestive tract	Respiratory	Genito-urinary	Breast	Skin	Brain	Bones	All other sites	
Under 6	3			5	5	13			2	28
6–11	2			2	4	8		1		17
12–17	2	2				5				9
18–23	1			2	2	7			1	13
24–29	2			3	2	1				8
30–35				1	1	2			1	5
36–41				4	1	2				7
42–47				1		1				2
48–53						1				1
54–59		1				1				2
60–65						1				1
66–71						1				1
72–77										
78–83										
84–89					1	3				4
90–95										
96 and over						5			1	6
Unknown	4	3		2	6	17	1	1	3	37
Total	14	6		20	22	68	1	2	8	141
Number treated in 1937	273	540	152	901	385	601	36	61	187	3,136
Total number of cases	287	546	152	921	407	669	37	63	195	3,277

TABLE 15.—*Number of cancer cases under observation only during the study year, by months since last treated and by age groups, New Orleans, 1937*

Months since last treated	Age in years									All ages
	Under 15	15–24	25–34	35–44	45–54	55–64	65–74	75 and over	Unknown	
Under 6			2	2	4	7	7	5	1	28
6–11		1	1		3	4	5	2	1	17
12–17				1	1	2	1	2	2	9
18–23			1		6	3	1	2		13
24–29			2	1	2	1	2			8
30–35		1			2	1			1	5
36–41				1	2	1	3			7
42–47					1	1				2
48–53									1	1
54–59						1	1			2
60–65						1				1
66–71								1		1
72–77										
78–83										
84–89					1	2		1		4
90–95										
96 and over		1				3			2	6
Unknown	1		2	3	10	12	7		2	37
Total	1	3	8	8	32	39	27	13	10	141

TABLE 16.—*Number of cases of cancer first seen in 1937, by primary site, sex, color, and residence, New Orleans*

Primary site	Number of cases first seen in 1937									
	White				Colored				Total	
	Resident [1]		Nonresident		Resident [1]		Nonresident			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Buccal cavity	73	21	58	13	3	6	6	3	140	43
Digestive tract	123	94	82	33	43	36	34	12	282	175
Respiratory	51	11	36	2	5	1	8	1	100	15
Genitourinary	83	222	57	111	11	116	18	58	169	507
Breast	3	136		50	2	32		17	5	235
Skin	159	142	81	56	4	4	3	1	247	203
Brain	6	7	8	10	1		1		16	17
Bones	11	5	10	2	3	5		7	24	19
All other sites	36	34	30	20	6	15	7	4	79	73
All sites	545	672	362	297	78	215	77	103	1,062	1,287

[1] 107 cases of unknown residence included with residents.

TABLE 17.—*Number of cancer cases first seen in 1937, by sex, color, age distribution, and residence, New Orleans*

Age group	Number of cases									
	All white		All colored		White residents		Colored residents		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under 5	3	2	1	2	1	1		1	4	4
5–9	2	1	2		1	1	1		4	1
10–14		5		1		1		1		6
15–19	7	4	5	2	6	3	2		12	6
20–24	7	10	3	7	6	6	2	5	10	17
25–29	13	20	3	28	6	14	1	19	16	48
30–34	28	37	5	24	16	21	8	13	33	61
35–39	34	72	6	23	16	52	4	20	40	95
40–44	51	89	12	44	28	59	5	27	63	133
45–49	76	100	15	31	38	63	8	23	91	131
50–54	78	97	15	43	43	67	8	30	93	140
55–59	118	97	25	40	73	61	12	27	143	137
60–64	110	99	24	24	68	75	12	14	134	123
65–69	100	88	18	26	49	58	10	18	118	114
70–74	74	55	14	11	47	41	5	7	88	66
75–79	51	39	1	5	34	33		3	52	44
80–84	11	14	2	2	5	8	2	2	13	16
85–89	8	4	1		5	4	1		9	4
90–94										
95 and over	1	1	1			1	1		2	1
Unknown	135	135	2	5	103	103	1	5	137	140
Total	907	969	155	318	545	672	78	215	1,062	1,287

TABLE 18.—*Number of cases of cancer first seen in 1937, by primary site and age (males only), New Orleans*

Primary site	Number of cases in each age group									All ages
	Under 15	15–24	25–34	35–44	45–54	55–64	65–74	75 and over	Unknown	
Buccal cavity	1	1	7	21	30	42	19	5	14	140
Lip	-----	*1*	*4*	*17*	*23*	*15*	*7*	*4*	*8*	*79*
Others	*1*	-----	*3*	*4*	*7*	*27*	*12*	*1*	*6*	*61*
Digestive tract	1	3	12	27	48	88	69	18	16	282
Stomach	-----	-----	*3*	*10*	*25*	*41*	*36*	*8*	*12*	*135*
Intestines	-----	-----	*4*	*6*	*8*	*12*	*9*	*5*	*1*	*45*
Rectum	-----	*1*	*2*	*5*	*5*	*9*	*2*	*3*	*1*	*28*
Others	*1*	*2*	*3*	*6*	*10*	*26*	*22*	*2*	*2*	*74*
Respiratory system	1	2	2	11	22	38	14	3	7	100
Lungs	*1*	*1*	*2*	*6*	*10*	*24*	*5*	*1*	-----	*50*
Others	-----	*1*	*2*	*5*	*12*	*14*	*9*	*2*	*7*	*48*
Genitourinary system	3	2	8	9	26	46	47	17	11	169
Prostate	-----	-----	-----	-----	*2*	*20*	*30*	*12*	*6*	*70*
Others	*3*	*2*	*8*	*9*	*24*	*26*	*17*	*5*	*5*	*99*
Skin	-----	1	11	21	32	42	42	28	70	247
Brain	-----	1	2	4	2	5	-----	-----	2	16
Bones	1	5	-----	2	7	3	2	-----	4	24
All others	1	7	7	8	17	13	13	5	13	84
All sites	8	22	49	103	184	277	206	76	137	1,062

TABLE 19.—*Number of cases of cancer first seen in 1937, by primary site and age (females only), New Orleans*

Primary site	Number of cases in each age group									All ages
	Under 15	15–24	25–34	35–44	45–54	55–64	65–74	75 and over	Unknown	
Buccal cavity	2	1	3	7	9	5	6	3	7	43
Digestive tract	1	3	8	31	29	35	40	17	11	175
Stomach	-----	-----	*3*	*14*	*6*	*8*	*17*	*5*	*4*	*57*
Intestines	*1*	*2*	*3*	*7*	*10*	*13*	*11*	*6*	*5*	*58*
Rectum	-----	*1*	*2*	*5*	*6*	*3*	*5*	*2*	*1*	*25*
Others	-----	-----	-----	*5*	*7*	*11*	*7*	*4*	*1*	*35*
Respiratory system	-----	1	1	3	1	3	2	-----	4	15
Genitourinary system	2	4	57	96	139	118	56	15	20	507
Uterus	-----	*4*	*51*	*83*	*110*	*97*	*36*	*4*	*12*	*397*
Others	*2*	-----	*6*	*13*	*29*	*21*	*20*	*11*	*8*	*110*
Breast	-----	3	10	54	52	55	29	11	21	235
Skin	-----	3	12	21	26	27	37	16	61	203
Brain	2	2	4	4	3	1	-----	-----	1	17
Bones	1	2	4	2	4	-----	5	-----	1	19
All others	3	4	10	10	8	16	5	3	14	73
All sites	11	23	109	228	271	260	180	65	140	1,287

DEATHS DURING WEEK ENDED MAY 17, 1941

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

	Week ended May 17, 1941	Corresponding week, 1940
Data from 88 large cities of the United States:		
Total deaths	8,070	8,390
Average for 3 prior years	8,191	
Total deaths, first 20 weeks of year	182,591	183,711
Deaths per 1,000 population, first 20 weeks of year, annual rate	12.7	12.8
Deaths under 1 year of age	521	493
Average for 3 prior years	495	
Deaths under 1 year of age, first 20 weeks of year	10,619	10,215
Data from industrial insurance companies:		
Policies in force	64,507,375	65,523,880
Number of death claims	10,882	12,182
Death claims per 1,000 policies in force, annual rate	8.8	9.7
Death claims per 1,000 policies, first 20 weeks of year, annual rate	10.4	10.5

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 MAY 24, 1941

Summary

A total of 35,044 cases of measles was reported for the current week, as compared with 37,941 cases for the preceding week. Slight increases were recorded for the West South Central, Mountain, and Pacific States, while the incidence declined in all other geographic areas.

As compared with the preceding week, increases were reported for diphtheria, influenza, meningococcus meningitis, poliomyelitis, and typhoid fever. The incidence of influenza, measles, meningococcus meningitis, poliomyelitis, and whooping cough was above the 5-year (1936–40) median expectancy, and the cumulative totals (first 21 weeks) for these diseases, with the exception of meningococcus meningitis, were above the median.

Of 27 cases of poliomyelitis, 10 were reported in Florida and 5 in California. A total of 491 cases has been reported to date this year, as compared with 499 for the corresponding period last year. One-fourth of the cases reported in the past three weeks occurred in Florida.

Of 30 cases of Rocky Mountain spotted fever, 24 were reported from the Mountain and Pacific States, and of 24 cases of endemic typhus fever, 11 cases occurred in Georgia.

Plague infection was reported in ground squirrels and fleas from ground squirrels in Kern and Monterey Counties, California.

The death rate for the current week in 87 major cities of the United States, as reported by the Bureau of the Census, was 11.6 per 1,000 population, as compared with 11.3 for the preceding week and with a 3-year average (1938–40) of 11.4 (88 cities). The cumulative rate for the first 21 weeks of 1941 is 12.7, as compared with 12.8 for the corresponding period of 1940. (All rates are on an annual basis.)

Telegraphic morbidity reports from State health officers for the week ended May 24, 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.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended		Median 1936–40	Week ended		Median 1936–40	Week ended		Median 1936–40	Week ended		Median 1936–40
	May 24, 1941	May 25, 1940		May 24, 1941	May 25, 1940		May 24, 1941	May 25, 1940		May 24, 1941	May 25, 1940	
NEW ENG.												
Maine	0	1	0	------	------	------	97	449	156	0	0	0
New Hampshire	0	0	0	------	------	------	31	28	3	1	1	0
Vermont	1	1	0	------	------	------	88	13	140	0	0	0
Massachusetts	0	3	3	------	------	------	958	869	869	1	0	1
Rhode Island	0	0	0	------	------	------	2	188	70	0	0	0
Connecticut	0	2	2	------	3	1	397	17	181	1	1	1
MID. ATL.												
New York [1] [3]	19	20	22	[2] 3	[2] 7	[2] 7	3,596	888	2,181	7	1	5
New Jersey	7	7	7	2	4	4	2,324	990	708	2	0	1
Pennsylvania	6	17	24	------	------	------	5,887	453	1,257	9	5	8
E. NO. CEN.												
Ohio	12	9	9	13	7	7	2,994	25	435	3	1	4
Indiana	5	1	5	21	1	3	1,200	5	13	2	2	2
Illinois [1]	13	16	36	22	3	54	1,459	174	174	1	0	0
Michigan [4]	3	4	9	4	2	2	2,232	------	192	3	1	1
Wisconsin	4	7	4	24	53	34	1,644	1,162	785	0	0	0
W. NO. CEN.												
Minnesota	8	1	1	2	1	1	21	140	254	1	0	0
Iowa [1]	2	4	3	10	------	1	140	416	207	2	0	0
Missouri [3]	5	5	7	4	6	13	587	25	25	0	0	0
North Dakota	0	0	1	------	------	------	107	5	5	0	0	0
South Dakota	1	0	1	------	------	------	37	2	2	0	0	0
Nebraska	0	1	1	------	------	------	37	16	22	0	0	0
Kansas	3	3	3	7	1	1	557	392	97	2	0	1
SO. ATL.												
Delaware	0	1	0	------	------	------	85	0	11	0	0	0
Maryland [1] [4]	4	3	3	1	4	3	401	17	165	3	1	1
Dist. of Col	0	2	5	1	------	------	248	4	146	0	0	0
Virginia	9	6	9	59	57	26	1,343	286	325	2	2	2
West Virginia [4]	7	6	5	4	9	23	619	32	35	1	2	2
North Carolina	6	3	6	3	4	3	1,597	110	298	3	0	1
South Carolina [3]	5	5	4	138	299	104	272	5	62	1	2	1
Georgia [3]	2	7	6	14	23	------	360	112	72	0	0	0
Florida [3]	0	1	6	29	3	3	475	152	19	0	0	0
E. SO. CEN.												
Kentucky	5	3	7	------	12	9	962	113	113	0	0	2
Tennessee [1]	7	5	5	21	16	16	341	133	87	0	0	2
Alabama [3]	7	2	7	21	34	28	269	165	149	0	2	2
Mississippi [4]	1	2	4	------	------	------	------	------	------	1	1	1
W. SO. CEN.												
Arkansas	2	2	3	258	16	26	317	39	39	0	0	0
Louisiana [3]	0	1	5	1	13	13	27	4	13	2	2	1
Oklahoma	7	3	3	19	21	18	152	13	60	0	0	1
Texas [3]	18	13	25	442	126	138	1,146	1,350	482	0	1	2
MOUNTAIN												
Montana [1]	1	0	1	2	9	9	63	81	81	0	0	0
Idaho [1]	0	0	0	------	------	3	6	40	16	0	0	0
Wyoming [1]	6	0	0	------	3	------	277	16	16	0	0	0
Colorado [1]	8	16	8	20	2	------	542	29	36	0	0	1
New Mexico	2	4	4	------	8	2	106	87	75	0	0	0
Arizona	3	1	0	58	55	40	110	118	41	0	0	0
Utah [1] [4]	5	0	0	7	------	------	42	507	73	0	0	0
Nevada	0	------	------	------	------	------	0	------	------	0	------	------
PACIFIC												
Washington [1]	1	0	3	2	------	------	15	502	437	0	1	0
Oregon [1]	2	3	2	2	10	18	140	519	83	0	0	0
California [3]	11	8	24	222	64	52	734	272	564	1	0	6
Total	208	199	305	1,436	876	876	35,044	10,963	12,971	49	26	47
21 weeks	5,660	6,849	9,998	588,857	164,052	146,309	696,002	161,950	207,146	1,021	858	1,639

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended May 24, 1941, and comparison with corresponding week of 1940 and 5-year median—Con.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended		Median 1936–40	Week ended		Median 1936–40	Week ended		Median 1936–40	Week ended		Median 1936–40
	May 24, 1941	May 25, 1940		May 24, 1941	May 25, 1940		May 24, 1941	May 25, 1940		May 24, 1941	May 25, 1940	
NEW ENG.												
Maine	0	0	0	13	13	14	0	0	0	0	0	0
New Hampshire	0	0	0	0	3	7	0	0	0	0	0	0
Vermont	0	0	0	4	4	5	0	0	0	0	0	0
Massachusetts	0	0	0	197	120	202	0	0	0	1	4	1
Rhode Island	0	0	0	7	4	16	0	0	0	1	0	0
Connecticut	0	0	0	58	75	75	0	0	0	2	0	0
MID. ATL.												
New York [1,2]	1	1	1	546	948	703	0	0	0	17	5	5
New Jersey	2	0	0	278	362	221	0	0	0	1	1	2
Pennsylvania	0	1	1	384	401	401	0	0	0	6	15	10
E. NO. CEN.												
Ohio	0	1	1	260	213	241	1	0	1	3	7	8
Indiana	1	0	0	87	115	94	0	1	9	2	6	2
Illinois [1]	1	0	1	269	797	512	3	2	10	5	4	4
Michigan [4]	0	2	1	267	268	381	6	0	0	0	3	3
Wisconsin	0	0	0	100	149	161	2	6	5	0	1	2
W. NO. CEN.												
Minnesota	1	0	0	40	74	79	0	4	11	0	1	0
Iowa [1]	0	0	0	26	78	88	4	15	33	2	1	2
Missouri [3]	0	0	0	99	37	55	4	2	11	1	3	1
North Dakota	0	0	0	2	6	7	0	1	2	0	1	1
South Dakota	0	0	0	5	6	8	4	2	10	0	0	0
Nebraska	0	0	0	9	7	25	0	0	3	0	1	0
Kansas	0	0	0	20	60	84	0	0	18	4	0	0
SO. ATL.												
Delaware	0	0	0	19	4	4	0	0	0	0	0	1
Maryland [1,4]	0	0	0	39	23	38	0	0	0	3	1	3
Dist. of Col	0	0	0	14	26	15	0	0	0	0	0	0
Virginia	0	0	0	15	26	17	0	0	0	3	5	5
West Virginia [4]	0	0	0	38	34	28	0	0	0	2	4	4
North Carolina	1	0	0	12	8	12	0	0	0	2	4	4
South Carolina [3]	0	1	0	5	5	4	0	0	0	3	1	2
Georgia [3]	0	0	0	13	12	8	0	0	0	13	14	8
Florida [3]	10	1	1	2	3	4	0	1	0	1	2	6
E. SO. CEN.												
Kentucky	0	1	1	85	30	24	0	0	0	5	5	5
Tennessee [1]	0	0	0	51	71	13	3	8	0	8	8	5
Alabama [3]	1	1	1	19	6	5	0	1	1	0	1	1
Mississippi [4]	2	0	0	1	6	4	1	0	0	0	3	3
W. SO. CEN.												
Arkansas	0	0	0	2	5	5	1	0	9	3	1	3
Louisiana [3]	0	1	1	4	6	10	0	0	0	4	14	13
Oklahoma	0	0	0	13	6	16	1	3	3	7	2	6
Texas [3]	1	0	0	33	24	49	1	4	4	3	7	8
MOUNTAIN												
Montana [1]	0	0	0	6	15	21	0	0	12	0	1	0
Idaho [1]	0	1	0	4	10	4	2	0	6	0	1	1
Wyoming [1]	0	0	0	0	1	5	0	0	1	0	0	0
Colorado [1]	0	0	0	18	20	44	0	3	3	0	3	2
New Mexico	0	0	0	5	7	10	0	1	0	0	1	1
Arizona	0	0	0	6	10	10	0	1	1	0	0	1
Utah [1,4]	0	1	0	13	10	15	1	1	0	0	0	0
Nevada	0			0			0			0		
PACIFIC												
Washington [1]	0	10	0	17	37	37	0	0	4	0	0	0
Oregon [1]	1	1	0	5	10	18	1	0	4	4	4	2
California [3]	5	9	4	108	117	194	0	1	15	1	6	6
Total	27	32	22	3,218	4,272	4,272	35	57	269	107	141	150
21 weeks	491	499	432	76,766	100,689	117,582	956	1,498	6,508	1,690	1,811	2,414

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended May 24, 1941, and comparison with corresponding week of 1940—Continued

Division and State	Whooping cough	
	Week ended	
	May 24, 1941	May 25, 1940
NEW ENG.		
Maine	19	34
New Hampshire	16	4
Vermont	13	36
Massachusetts	357	161
Rhode Island	23	7
Connecticut	66	37
MID. ATL.		
New York [1] [2]	270	313
New Jersey	194	100
Pennsylvania	435	277
E. NO. CEN.		
Ohio	370	200
Indiana	32	27
Illinois [1]	106	87
Michigan [4]	379	195
Wisconsin	111	108
W. NO. CEN.		
Minnesota	90	40
Iowa [1]	28	50
Missouri [3]	65	21
North Dakota	20	3
South Dakota	16	4
Nebraska	6	7
Kansas	130	63
SO. ATL.		
Delaware	0	10
Maryland [1] [4]	146	106
Dist. of Col	10	5
Virginia	83	66
West Virginia [4]	89	60
North Carolina	345	87
SO. ATL.—continued		
South Carolina [3]	89	23
Georgia [3]	47	11
Florida [3]	24	15
E. SO. CEN.		
Kentucky	40	88
Tennessee [1]	65	64
Alabama [3]	68	28
Mississippi [4]	------	------
W. SO. CEN.		
Arkansas	70	12
Louisiana [3]	5	54
Oklahoma	26	31
Texas [3]	309	434
MOUNTAIN		
Montana [1]	4	0
Idaho [1]	6	16
Wyoming [1]	3	5
Colorado [1]	205	9
New Mexico	40	67
Arizona	35	75
Utah [1] [4]	34	200
Nevada	0	------
PACIFIC		
Washington [1]	108	83
Oregon [1]	34	20
California [3]	811	462
Total	5,442	3,805
21 weeks	96,623	66,492

[1] Rocky Mountain spotted fever, week ended May 24, 1941, 30 cases, as follows: New York, 1; Illinois, 1; Iowa, 1; Maryland, 1; Tennessee, 2; Montana, 11; Idaho, 2; Wyoming, 7; Colorado, 1; Utah, 1; Washington, 1; Oregon, 1.

[2] New York City only.

[3] Typhus fever, week ended May 24, 1941, 24 cases, as follows: New York, 1; Missouri, 1; South Carolina, 3; Georgia, 11; Florida, 2; Alabama, 1; Louisiana, 1; Texas, 3; California, 1.

[4] Period ended earlier than Saturday.

PLAGUE INFECTION IN CALIFORNIA

IN RATS IN CONTRA COSTA COUNTY

Under date of May 13, 1941, Dr. Bertram P. Brown, State Director of Public Health of California, reported plague infection proved, by animal inoculation and cultures, in organs from two rats, *R. norvegicus*, taken from a garbage dump at the foot of Gertrude Avenue, Richmond, Contra Costa County, Calif., and submitted to the laboratory on April 28.

In Ground Squirrels and Fleas in Kern County

Under date of May 16, 1941, Dr. Bertram P. Brown, State Director of Public Health of California, reported plague infection proved in organs from a ground squirrel, *C. beecheyi*, submitted to the laboratory on May 1, 1941; in a pool of 103 fleas from 15 ground squirrels from a ranch 12 miles east of Wheeler Ranch; in a pool of 51 fleas from 22 ground squirrels submitted to the laboratory on April 24 from a ranch 6 miles south of Davis Ranger Station; and in a pool of 112 fleas from 10 ground squirrels submitted to the laboratory on April 24 from a ranch 3 miles south of Davis Ranger Station, Kern County, Calif.

According to a report dated May 14, from N. E. Wayson, Medical Officer in Charge, Plague Suppressive Measures, San Francisco, Calif., two ground squirrels (*C. beecheyi*) instead of one were taken on the same day near Tehachapi, Kern County, and proved positive for plague infection. (See Public Health Reports of May 16, 1941, p. 1067.)

In Fleas From Ground Squirrels in Monterey County

Under date of May 16, 1941, Dr. Bertram P. Brown, State Director of Public Health of California, reported plague infection proved in a pool of 354 fleas from 57 ground squirrels, *C. beecheyi*, submitted to the laboratory on April 29, from a military reservation 25 miles southwest of King City, Monterey County, Calif.

MONTHLY REPORTS FROM STATES

Case reports consolidated for the quarter January–March 1941

Division and State	Actinomycosis	Chickenpox	Diphtheria	Dysentery, amoebic	Dysentery, bacillary	Dysentery, undefined	Encephalitis, epidemic or lethargic	German measles	Hookworm disease	Influenza	Malaria	Measles	Meningitis, meningococcus	Mumps	Ophthalmia neonatorum	Pellagra	Pneumonia, all forms
NEW ENG.																	
Maine		1,068	1					254		4,356		1,096	1	271			262
New Hampshire		104								1,170		427	2	501			30
Vermont		640						77		403		271	1	623			23
Massachusetts		4,085	23		18		4	299			1	6,911	26	2,881	(1)	3	[2] 1,885
Rhode Island		495	1					35		428		27	4	65			152
Connecticut		2,192	5	1	5		1	266	1	4,869	1	632	4	1,876			1,602
MID. ATL.																	
New York		11,891	146	7	115		36	7,200			16	58,176	47		27		
New Jersey		8,658	146	10	2		4	6,937		4,533	2	20,439	15	4,997	19		12,749
Pennsylvania		15,619	202				8	1,903				43,319	60	10,399	1	3	2,458
																	3,162
E. NO. CEN.																	
Ohio		7,921	109	2	6		4	519		11,065		38,521	16	2,104			1,953
Indiana		1,754	189				1	158		2,218		5,175	15	613			407
Illinois	1	7,534	248	17	46		8	1,109	1	1,084	6	31,045	13	5,729	10	3	6,143
Michigan	1	7,000	66	1	4		2	659		1,746	1	35,003	10				1,913
Wisconsin		7,688	5				1	34		3,674		8,565	5	3,233			[2] 436
W. NO. CEN.																	
Minnesota	2	1,850	18	2	3		2			4,591		99	7				668
Iowa		1,411	102			3	1	16		3,835		2,059	0	2,294		1	1,000
Missouri		1,114	89		6		4			1,221	13	1,274	10	243			1,091
North Dakota	1	490	36				1			899		145	0	412			443
South Dakota		156	19		2					72		228	0	60			144
Nebraska		487	26							180		64	1	272			42
Kansas		2,110	45	2			7	51		7,663	2	6,154	8	180		2	1,260
SO. ATL.																	
Delaware		271	9					5		144		2,309	2	38			61
Maryland		2,035	48	2	13	2		1,779		2,828		1,361	18	693	1	1	1,804
Dist. of Col.		477	33	1	1					827		1,031	6	159			598
Virginia		1,384	123		136					59,918	3	13,980	24	782		14	2,406
West Virginia		659	85		39		1			45,099	1	3,118	30	389		3	663
North Carolina		2,400	206		2			4,348		5,659	36	6,087	13			12	324
South Carolina		850	208					2,082	325	48,389	761	2,291	11	494	2	272	3,136
Georgia		676	76	14	11		2		2,164	33,729	96	3,217	13	348		21	1,221
Florida		399	53	21	1		1	858	3,187	2,934	15	4,476	9	197		22	449

See footnotes at end of table.

Case reports consolidated for the quarter January–March 1941—Continued

Division and State	Actinomycosis	Chickenpox	Diphtheria	Dysentery, amoebic	Dysentery, bacillary	Dysentery, undefined	Encephalitis, epidemic or lethargic	German measles	Hookworm disease	Influenza	Malaria	Measles	Meningitis, meningococcus	Mumps	Ophthalmia neonatorum	Pellagra	Pneumonia, all forms
E. SO. CEN.																	
Kentucky		1,685	78	2	7		1	9		22,110	2	7,216	28	4,300			638
Tennessee		1,005	91	1	9		2	879	3	19,741	28	2,551	26	1,034	4	10	2,433
Alabama		576	88	2			2	252		33,273	147	3,898	32	1,258		35	2,640
Mississippi		2,225	52	418	1,039				2,408	70,145	2,402	6,066	29	2,974	29	711	4,530
W. SO. CEN.																	
Arkansas		433	109	5	5			346	10	24,052	131	1,646	9	1,000	1	38	1,312
Louisiana		203	63	3	5				231	12,113	18	362	15	128	1	3	697
Oklahoma		301	89	7	16		2			12,487	102	211	11	279	3	5	1,674
Texas		3,515	438	31	202		21			104,779	783	8,068	32	2,160	12	304	5,006
MOUNTAIN																	
Montana		950	41				5	17		3,714		115	1	154			52
Idaho		297	6					19		1,195		161	2	184			35
Wyoming	1	481	19				1	9		9,577	1	440	2	142			217
Colorado		2,269	105	2	15		6			4,776		2,028	2	1,032			446
New Mexico		418	19	2	2	5	2	41		866		1,758	3	373		2	509
Arizona		553	51			216	2	63		5,276	5	1,620	3	512	1	12	658
Utah		1,441	17	2				562		5,245		255	2	473			168
Nevada		165	2							399		88	1	5			31
PACIFIC																	
Washington		1,985	32	3	2		[1]6	6,895		1,164		1,060	11	2,291			118
Oregon		840	18	1			1			1,962	2	2,862	4	975			363
California	1	12,319	209	29	91		10	4,862		16,493	11	2,484	28	6,047	9		[2]917
Total	7	125,099	3,844	588	1,803	226	149	42,543	8,330	602,901	4,586	340,389	612	65,174	120	1,477	70,929
First quarter 1940	6	105,680	4,988	568	1,435	139	132	2,648	13,382	212,458	5,367	81,284	528	41,420	338	1,635	61,920
Alaska		45	3					770		4,899		268	4				69
Hawaii	1	373	33	1	45		2	474	31	360	2	1,721		26			[2]58

[1] 325 cases of ophthalmia neonatorum and suppurative conjunctivitis reported. [2] Lobar pneumonia only. [3] 1 case of equine type also reported.

Case reports consolidated for the quarter January–March 1941—Continued

Division and State	Poliomyelitis	Puerperal septicemia	Rabies in animals	Rabies in man	Rocky Mountain spotted fever	Scarlet fever	Septic sore throat	Smallpox	Tetanus	Trachoma	Trichinosis	Tuberculosis, all forms	Tularemia	Typhoid and paratyphoid fever	Typhus fever	Undulant fever	Vincent's infection	Whooping cough
NEW ENG.																		
Maine	0				0	94	8	0	1		2	276		2		4	7	356
New Hampshire	0				0	53	10	0				52		2		2		45
Vermont	0				0	118		0				33		4		18	19	148
Massachusetts	1		7		1	1,774	65	0	1	10	8	874		22		16		2,976
Rhode Island	1		3		0	112	42	0				752		2		2	2	185
Connecticut	2		1		0	599	103	0	1		6	334		10		23		870
MID. ATL.																		
New York	9		48	1	0	5,438	262	0	2		61	3,833	1	62	9	67	[4] 119	4,525
New Jersey	1		88		0	3,614	55	0	1	2	7	911		12		11		1,416
Pennsylvania	6				0	3,830		0	1		6	611	4	49		13		5,599
E. NO. CEN.																		
Ohio	14	4		2	0	3,398	71	12	1	2	42	1,274	12	32	1	17		4,191
Indiana	6		17		0	2,047	1	19				[5] 239	12	22		6		289
Illinois	16		67		0	5,447	18	42	5	96	2	2,480	35	34		35	65	1,301
Michigan	11		9		0	3,037	347	32		89	4	1,088	3	28		19	29	4,213
Wisconsin	12				0	1,705	42	84		2		242	4	4		23		1,426
W. NO. CEN.																		
Minnesota	6		3		0	771	38	110	1	1	7	395	1	4		34		928
Iowa	10		8		0	764	57	45				[6] 119	9	15		55		439
Missouri	6				0	1,191	67	67	1	39		578	16	22		7		595
North Dakota	0				0	132	8	2	1	1		65	8	3		2	10	245
South Dakota	3				1	246	7	10		4		59	4					140
Nebraska	0				0	368		5				59		1		2		288
Kansas	8		3		0	817	45	25	2	2		170	3	8	2	21	30	1,416
SO. ATL.																		
Delaware	0		2		0	173		0				[5] 49						166
Maryland	6				0	761	92	0	2			712	4	18	1	1	45	1,062
Dist. of Col	3				0	217		0				542	2	7	1			109
Virginia	7				1	631	688	0	2	3		[5] 505	15	34	3	3		1,648
West Virginia	9			1	0	571	29	0				506		17				800
North Carolina	12				0	603	28	1					12	12	29	2	65	3,693
South Carolina	1		95		0	142	6	3				170	5	38	24			1,315
Georgia	9	1		2	0	293	159	1	2	3		476	28	25	102	16		345
Florida	31				0	64	6	0				258	1	30	24	6	36	151

See footnotes at end of table.

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Case reports consolidated for the quarter January–March 1941—Continued

Division and State	Poliomyelitis	Puerperal septicemia	Rabies in animals	Rabies in man	Rocky Mountain spotted fever	Scarlet fever	Septic sore throat	Smallpox	Tetanus	Trachoma	Trichinosis	Tuberculosis, all forms	Tularemia	Typhoid and paratyphoid fever	Typhus fever	Undulant fever	Vincent's infection	Whooping cough
E. SO. CEN.																		
Kentucky	14				0	1,410	213	1		16		399	15	34		5		784
Tennessee	5	2			0	1,295	125	6	4	1		784	13	42	1	4	13	757
Alabama	6		30		0	297		7	5			584	4	23	27	5		485
Mississippi	8	64	5		0	86		10		24		302	9	12	21	18		2,551
W. SO. CEN.																		
Arkansas	7	2	70		0	142	304	7		915		242	10	31		7		304
Louisiana	8	1	11		0	99	44	3	3	1		[4] 358	13	50	14	8		92
Oklahoma	5				1	288	324	7		144	4	409	4	20		13	29	275
Texas	9		34		0	732		20		30		669	6	76	64	54		3,653
MOUNTAIN																		
Montana	6				8	393	44	1		3		123	4	4		4		262
Idaho	3	1			0	151	4	4				[5] 8		4			6	165
Wyoming	2				1	123	9	2				24	4	2		1	1	49
Colorado	1				0	403	8	36				[5] 145		19		5		684
New Mexico	1	2	35		0	67	20	3		7		229		17		2		287
Arizona	2				0	79	1	10		195		354		13		7		346
Utah	4				0	120	37	0				45	1	5		2		922
Nevada	0				1	9		1				14		7				31
PACIFIC																		
Washington	5		4		0	302	12	18	1	18		333		12		4	12	1,118
Oregon	4		20		3	138	17	4				159		8		2	11	124
California	25		101	1	0	1,754	24	4	13	50	26	2,457	3	53	3	64		5,302
Total	305	77	661	7	17	46,903	3,440	602	50	1,658	175	25,300	265	951	326	610	499	59,071
First quarter 1940	352	119	693	2	10	61,317	3,757	1,070	72	913	154	24,070	564	1,011	300	631	596	40,708
Alaska						3	63					219		7			2	
Hawaii	1					5			6	2		199		6	3	1		70

[4] Exclusive of New York City.

[5] Respiratory only.

Anthrax: Massachusetts, 1; New York, 4; New Jersey, 2; Pennsylvania, 5; Missouri, 1; Delaware, 2; District of Columbia, 1; Texas, 1; California, 1.
Botulism: California, 3.
Colorado tick fever: Colorado, 7.
Dengue: South Carolina, 8; Mississippi, 4; Texas, 6; California, 1.
Diarrhea: Ohio, 37 (under 2 years; enteritis included); Maryland, 27; South Carolina, 1,296; New Mexico, 18 (enteritis included); California, 15 (epidemic diarrhea of newborn).
Enteritis: Kansas, 1; Washington, 5 (2, under 2 years; 3, over 2 years).
Food poisoning: Washington, 4; California, 76.
Granuloma, coccidioidal: California, 15.
Leprosy: Hawaii Territory, 9; Mississippi, 1; Louisiana, 2; Wyoming, 1; California, 5.
Psittacosis: Connecticut, 1; Ohio, 1; Illinois, 1; Florida, 1.
Relapsing fever: Texas, 1.
Weil's disease: Hawaii Territory, 2; Michigan, 9.

WEEKLY REPORTS FROM CITIES

City reports for week ended May 10, 1941

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

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Data for 90 cities:											
5-year average	115	97	40	4,967	540	1,946	18	381	23	1,247	------
Current week [1]	54	49	9	10,686	312	1,357	0	348	15	1,555	------
Maine:											
Portland	0	------	0	1	3	0	0	0	0	10	20
New Hampshire:											
Concord	0	------	0	1	0	0	0	0	0	0	7
Nashua	0	------	0	0	0	0	0	0	0	12	9
Vermont:											
Barre	0	------	0	1	0	1	0	0	0	0	1
Burlington	0	------	0	1	0	0	0	0	0	0	8
Rutland	0	------	0	0	0	0	0	0	0	0	8
Massachusetts:											
Boston	1	------	0	269	12	83	0	9	3	61	205
Fall River	0	------	0	1	0	7	0	4	0	1	40
Springfield	0	------	0	43	0	10	0	0	0	6	37
Worcester	0	------	0	23	6	12	0	1	0	0	55
Rhode Island:											
Pawtucket	0	------	0	1	0	8	0	0	0	3	14
Providence	0	------	0	6	6	2	0	2	0	10	74
Connecticut:											
Bridgeport	0	------	0	12	1	5	0	0	0	0	30
Hartford	0	------	0	2	1	6	0	0	0	8	40
New Haven	0	------	0	3	0	24	0	1	0	0	36
New York:											
Buffalo	0	------	0	91	5	24	0	2	0	24	101
New York	19	5	0	2,533	68	275	0	63	3	114	1,464
Rochester	0	------	0	262	3	2	0	0	0	17	68
Syracuse	0	------	0	0	1	2	0	3	0	3	54
New Jersey:											
Camden	0	------	0	7	1	15	0	1	0	2	26
Newark	0	------	0	96	0	36	0	7	0	5	96
Trenton	0	------	0	54	0	24	0	2	0	0	43
Pennsylvania:											
Philadelphia	1	1	1	567	15	134	0	26	1	72	450
Pittsburgh	1	4	3	1,403	8	23	0	6	1	55	162
Reading	0	------	0	88	1	4	0	3	0	8	26
Scranton	0	------	--------	48	-------	0	0	-------	0	3	--------
Ohio:											
Cincinnati	0	------	0	127	1	11	0	10	0	3	138
Cleveland	2	1	0	87	11	64	0	17	1	100	204
Columbus	0	1	1	109	2	9	0	2	0	17	73
Toledo	0	------	0	296	3	8	0	3	0	15	77
Indiana:											
Anderson	0	------	0	7	0	3	1	0	0	2	6
Fort Wayne	0	------	0	17	0	0	0	0	0	0	29
Indianapolis	1	------	0	580	6	10	0	5	0	20	97
Muncie	1	------	0	46	2	6	0	1	0	0	11
South Bend	0	------	0	38	0	1	0	0	0	0	17
Terre Haute	0	------	0	4	0	0	0	0	1	0	21
Illinois:											
Alton	0	------	0	13	0	2	0	0	0	2	7
Chicago	9	------	2	429	22	157	0	33	1	44	649
Elgin	0	------	0	16	1	0	0	0	0	0	4
Springfield	0	1	0	49	0	7	0	0	0	0	19
Michigan:											
Detroit	3	1	0	703	9	130	0	14	0	162	259
Flint	0	------	0	102	2	2	0	0	0	11	26
Grand Rapids	0	------	0	299	1	11	0	1	0	6	37
Wisconsin:											
Kenosha	0	------	0	98	0	5	0	0	0	0	9
Madison	0	------	0	22	0	7	0	0	0	1	11
Milwaukee	0	1	0	467	3	10	0	2	0	32	97
Racine	0	------	0	10	0	9	0	0	0	2	8
Superior	0	------	0	0	0	0	0	0	0	7	6
Minnesota:											
Duluth	0	------	0	1	1	0	0	0	0	23	25
Minneapolis	1	------	0	13	2	13	0	1	0	45	103
St. Paul	0	------	0	4	5	6	0	2	0	31	61

[1] Figures for Raleigh estimated, report not received.

City reports for week ended May 10, 1941—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Iowa:											
Cedar Rapids	0	----	----	8	----	0	0	----	0	0	----
Davenport	0	----	----	5	----	1	0	----	0	0	----
Des Moines	0	----	----	14	----	4	0	----	0	2	25
Sioux City	0	----	----	5	----	3	0	----	0	6	----
Waterloo	0	----	----	16	----	0	1	----	0	0	----
Missouri:											
Kansas City	0	----	1	141	5	9	0	3	0	5	92
St. Joseph	0	----	0	27	4	0	0	1	0	0	25
St. Louis	0	----	0	333	6	89	0	6	0	39	178
North Dakota:											
Fargo	0	----	0	0	0	0	0	0	0	13	6
Grand Forks	0	----	----	0	----	1	0	----	0	0	----
Minot	0	----	----	9	----	1	0	----	0	7	3
South Dakota:											
Aberdeen	0	----	----	0	----	1	0	----	0	3	----
Sioux Falls	0	----	----	0	----	1	0	----	0	0	9
Nebraska:											
Omaha	0	----	0	17	0	3	0	1	0	0	53
Kansas:											
Topeka	0	----	0	115	0	2	0	0	0	9	12
Wichita	0	1	0	7	3	0	0	2	0	10	35
Delaware:											
Wilmington	0	----	0	13	0	5	0	1	0	0	28
Maryland:											
Baltimore	0	3	0	139	10	22	0	14	0	71	225
Cumberland	0	----	0	6	0	0	0	0	0	4	9
Frederick	0	----	0	3	0	1	0	0	0	0	1
Dist. of Col.:											
Washington	1	1	0	257	9	5	0	8	0	20	159
Virginia:											
Lynchburg	1	----	0	4	0	0	0	0	0	4	7
Norfolk	0	2	0	198	0	2	0	0	0	3	35
Richmond	2	----	0	51	2	0	0	0	0	0	60
Roanoke	0	----	0	20	0	0	0	0	0	0	20
West Virginia:											
Charleston	0	1	0	1	1	0	0	1	0	0	24
Wheeling	0	----	0	69	1	1	0	0	0	2	19
North Carolina:											
Gastonia	1	----	----	18	----	0	0	----	0	0	----
Raleigh	----	----	----	----	----	----	----	----	----	----	----
Wilmington	0	----	0	17	1	1	0	1	0	20	13
Winston-Salem	0	1	0	4	0	1	0	1	0	11	9
South Carolina:											
Charleston	0	6	0	6	1	1	0	2	0	0	21
Florence	0	----	0	0	0	0	0	0	0	2	11
Greenville	0	----	0	15	0	0	0	0	0	4	4
Georgia:											
Atlanta	0	2	0	10	3	0	0	5	0	0	86
Brunswick	0	----	0	1	0	0	0	0	0	0	3
Savannah	0	2	0	3	1	7	0	1	0	0	41
Florida:											
Miami	0	1	2	8	0	0	0	0	0	3	39
St. Petersburg	0	----	0	75	1	0	0	0	0	0	27
Tampa	0	----	0	0	1	0	0	0	0	1	30
Kentucky:											
Ashland	1	----	0	1	0	0	0	0	0	5	6
Covington	0	----	0	4	2	2	0	2	0	0	22
Lexington	0	----	0	3	0	1	0	0	0	2	15
Louisville	0	----	0	632	4	45	0	4	0	18	58
Tennessee:											
Knoxville	0	----	0	34	1	6	0	0	0	0	32
Memphis	0	----	0	138	2	5	0	3	1	13	57
Nashville	0	----	0	60	0	7	0	2	1	8	42
Alabama:											
Birmingham	0	4	0	27	1	8	0	1	0	1	56
Mobile	0	1	0	4	0	1	0	4	0	0	26
Montgomery	1	----	----	18	----	1	0	----	0	0	----
Arkansas:											
Fort Smith	0	----	----	5	----	0	0	----	0	0	----
Little Rock	0	----	0	9	7	1	0	4	0	3	47
Louisiana:											
Lake Charles	0	----	0	2	0	0	0	0	0	0	1
New Orleans	1	----	0	2	10	2	0	10	0	35	132
Shreveport	0	----	0	0	4	1	0	2	1	1	45
Oklahoma:											
Oklahoma City	0	1	1	10	5	4	0	1	0	0	57
Tulsa	1	----	0	57	0	2	0	0	0	2	8

City reports for week ended May 10, 1941—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Texas:											
Dallas	2	------	0	44	3	0	0	4	1	3	52
Fort Worth	0	------	2	36	3	1	0	3	0	0	37
Galveston	0	------	0	0	2	0	0	4	0	0	25
Houston	0	------	0	1	4	0	0	7	0	9	95
San Antonio	1	------	0	5	4	1	0	7	0	6	70
Montana:											
Billings	0	------	0	0	0	0	0	0	0	0	11
Great Falls	0	------	0	0	0	0	0	0	0	1	4
Helena	0	------	0	0	0	0	0	0	0	0	3
Missoula	0	------	0	0	0	0	0	0	0	0	5
Idaho:											
Boise	0	------	0	7	0	0	0	2	0	0	7
Colorado:											
Colorado Springs	0	------	0	3	1	4	0	0	0	10	7
Denver	5	6	0	390	3	4	0	3	0	117	80
Pueblo	0	------	0	2	1	2	0	0	0	35	13
New Mexico:											
Albuquerque	0	------	0	29	0	0	0	2	0	0	4
Arizona:											25
Phoenix	0	30	--------	7	-------	0	0	-------	0	14	--------
Utah:											
Salt Lake City	0	------	0	6	3	1	0	0	0	19	25
Washington:											
Seattle	0	------	0	0	6	0	0	1	0	31	86
Spokane	0	------	0	3	1	0	0	0	0	2	30
Tacoma	0	------	0	1	0	1	0	0	0	2	30
Oregon:											
Portland	1	1	0	2	2	2	0	2	0	2	59
Salem	0	------	--------	0	-------	0	0	-------	0	0	--------
California:											
Los Angeles	0	6	0	79	7	34	0	19	0	53	368
Sacramento	2	------	1	2	3	0	0	3	0	38	36
San Francisco	1	------	0	6	6	8	0	7	0	52	178

State and city	Meningitis, meningococcus		Poliomyelitis cases	State and city	Meningitis, meningococcus		Poliomyelitis cases
	Cases	Deaths			Cases	Deaths	
Massacusetts:				West Virginia:			
Boston	2	1	0	Wheeling	0	1	0
Springfield	0	1	0	Florida:			
Connecticut:				Miami	0	0	4
Bridgeport	0	1	0	Louisiana:			
New York:				New Orleans	0	0	1
Buffalo	2	0	0	Oklahoma:			
New York	4	3	2	Tulsa	1	0	0
New Jersey:				Texas:			
Camden	0	0	1	Houston	1	0	1
Illinois:				Oregon:			
Chicago	2	0	0	Portland	0	0	1
Maryland:				California:			
Baltimore	3	0	0	Los Angeles	0	0	1

Encephalitis, epidemic or lethargic.—Cases: New York, 1; Muncie, 1.
Pellagra.—Cases: Charleston, S. C., 2; Atlanta, 1; Savannah, 1; Houston, 1.
Typhus fever.—Cases: New York, 3; Atlanta, 1; Miami, 3; Montgomery, 1; Houston, 1.

TERRITORIES AND POSSESSIONS

PANAMA CANAL ZONE

Notifiable diseases—January–March 1941.—During the months of January, February, and March 1941, certain notifiable diseases, including imported cases, were reported in the Panama Canal Zone and terminal cities as follows:

Disease	January		February		March	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chickenpox	13		16		15	
Diphtheria	11		7		9	
Dysentery (amoebic)	9		10	2	8	
Dysentery (bacillary)	2	2	2		2	1
Leprosy	3		1			1
Malaria	229	7	188	4	123	9
Measles	3		31		42	
Meningitis, meningococcus	1		1	1		
Mumps	2		1		2	
Paratyphoid fever	5		2		2	
Pneumonia	[1] 54	29		18		10
Poliomyelitis			1			
Tuberculosis		36		22		34
Typhoid fever			5		1	1
Typhus fever			1		2	
Whooping cough	[1] 18		[1] 6		[1] 5	

[1] In the Canal Zone only.

SAMOA (AMERICAN)

Vital statistics—Year 1940.—Following are vital statistics for American Samoa for the year 1940:

Number of births	491
Number of stillbirths	15
Deaths, all causes	175
Deaths per 1,000 population	13.49
Deaths under 1 year of age per 1,000 live births	101.83

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Weeks ended April 19 and 26, 1941.—During the weeks ended April 19 and 26, 1941, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Week ended April 19, 1941

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis	3	9		5	13	1		3	3	37
Chickenpox		24	2	88	215	31	15	38	33	446
Diphtheria		15		22	4	5		1		47
Dysentery				5						5
Influenza		43			9				36	88
Lethargic encephalitis						2				2
Measles		190	77	473	1,403	63	133	99	347	2,785
Mumps				234	240	49	12	15	26	576
Pneumonia		18			14	2			12	46
Poliomyelitis				1						1
Scarlet fever	1	34	7	93	158	4	3	13	5	318
Smallpox							3			3
Tuberculosis	2	3	8	71	44	3	10	5		146
Typhoid and paratyphoid fever		1		14	2	1	2			20
Whooping cough		1		98	121		2	9	19	250

Week ended April 26, 1941

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis	1	10		4	18	1	1	1	3	39
Chickenpox		9	2	127	205	36	39	36	47	501
Diphtheria	2	25		21	3	1				52
Dysentery				3						3
Influenza		13			1	11			25	50
Measles	3	55	43	413	1,433	74	106	72	408	2,607
Mumps				243	162	19	25	10	8	467
Pneumonia	4	7			13				5	29
Poliomyelitis				1						1
Scarlet fever		22	11	72	138	6	9	10	8	276
Smallpox							1			1
Tuberculosis	3	4	3	66	34	20	5	1		136
Typhoid and paratyphoid fever				8	3				4	15
Whooping cough				70	142	1	7	7	21	248

CUBA

Habana—Communicable diseases—4 weeks ended May 3, 1941.—During the 4 weeks ended May 3, 1941, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths
Diphtheria	30	2
Tuberculosis		1
Typhoid fever	33	5

Provinces—Notifiable diseases—4 weeks ended April 26, 1941.—During the 4 weeks ended April 26, 1941, cases of certain notifiable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Habana[1]	Matanzas	Santa Clara	Camaguey	Oriente	Total
Cancer	1	1	2	7	2	11	24
Chickenpox	1	4	4	8	1	13	31
Diphtheria	1	39				3	43
Hookworm disease		28					28
Leprosy						3	3
Malaria	7	2		12	3	65	89
Measles	1	4	22	5	2	1	35
Poliomyelitis						1	1
Scarlet fever		1				1	2
Tuberculosis	23	29	13	41	8	41	155
Typhoid fever	19	73	9	14	5	26	146
Yaws						2	2

[1] The city of Habana is also included.

GREAT BRITAIN

England and Wales—Infectious diseases—13 weeks ended December 28, 1940.—During the 13 weeks ended December 28, 1940, cases of certain infectious diseases were reported in England and Wales as follows:

Disease	Cases	Disease	Cases
Diphtheria	17,015	Puerperal pyrexia	1,590
Dysentery	1,135	Scarlet fever	22,351
Ophthalmia neonatorum	934	Typhoid and paratyphoid fever	430
Pneumonia	9,576		

England and Wales—Vital statistics—Fourth quarter 1940.—The following vital statistics for the fourth quarter of 1940 for England and Wales are taken from the Quarterly Return of Births, Deaths, and Marriages, issued by the Registrar-General and are provisional:

	Number	Annual rate per 1,000 population		Number	Annual rate per 1,000 population
Live births	137,009	13.1	Deaths from—Continued		
Stillbirths	5,127	.49	Influenza		0.08
Deaths, all causes	141,598	14.2	Measles		0.04
Deaths under 1 year of age	7,765	[1] 57	Scarlet fever		0.00
Deaths from:			Typhoid and paratyphoid fever		0.00
Diarrhea and enteritis (under 2 years of age)		5.6	Whooping cough		0.03
Diphtheria		0.09			

[1] Per 1,000 live births.

NOTE.—The above deaths include civilians only.

WORLD DISTRIBUTION OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, International Office of Public Health, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases; D, deaths]

NOTE.—Since many of the figures in the following tables are from weekly reports, the accumulated totals are for approximate dates.

Place		January-February 1941	March 1941	April 1941—week ended—			
				5	12	19	26
ASIA							
China: Hong Kong	C	18	549	49	20	------	------
India:							
Calcutta	C	538	176	------	------	------	------
Rangoon	C	13	------	------	------	------	------

PLAGUE

[C indicates cases; D, deaths]

AFRICA							
Belgian Congo	C	1	------	------	------	------	------
British East Africa:							
Kenya	C	8	2	------	------	------	------
Uganda	C	28	1	------	------	------	------
Madagascar	C	103	69	------	------	------	[1] 11
Morocco	C	375	242	38	35	55	53
Tunisia: Tunis	C	2	------	------	------	------	------
Union of South Africa	C	13	4	------	------	------	------
ASIA							
Dutch East Indies:							
Java and Madura	C	158	------	------	------	------	------
West Java	C	88	------	------	------	------	------
India:							
Calcutta	C	------	3	------	------	------	------
Rangoon	C	2	------	------	------	------	------
Thailand: Lampang Province	C	------	------	1	------	------	------
SOUTH AMERICA							
Argentina: Cordoba Province	C	1	------	------	------	------	------
Peru:							
Lambayeque Department	C	1	1	------	------	------	------
Libertad Department	C	5	1	------	------	------	------
Lima Department	C	2	3	------	------	------	------
OCEANIA							
Hawaii Territory: Plague-infected rats		6	3	------	1	------	------
New Caledonia	C	7	------	------	------	------	------

[1] For the month of April.

WORLD DISTRIBUTION OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Con.

SMALLPOX

[C indicates cases; D, deaths]

Place		January–February 1941	March 1941	April 1941—week ended— 5	12	19	26
AFRICA							
Algeria	C	38	41			14	
British East Africa	C	7					
Dahomey	C	270	81				
French Guinea	C	11	9		3		
Ivory Coast	C	15	6				
Morocco	C	27		4			
Nigeria	C	83	187				
Niger Territory	C	52	72				
Portuguese East Africa	C	9					
Rhodesia: Southern	C	62	18				
Senegal	C	18	12				
Sudan (Anglo-Egyptian)	C	1	4	2			
Sudan (French)	C	10	4			3	
ASIA							
China	C	89	25	5	7	3	
Chosen	C	[1] 207					
India	C	4,682					
Indochina (French)	C	196	129				[2] 180
Iran	C	4					
Iraq	C	621	137				
Japan	C	80	12				
Syria	C		1				
Thailand	C	70	5	8	1		7
EUROPE							
France	C	1					
Portugal	C	9	3		1	3	2
Spain	C	95	2				
NORTH AMERICA							
Canada	C	1	2	6		3	1
Cuba	C			1			
Dominican Republic	C		2				
Guatemala	C	3					
Mexico	C	18					
SOUTH AMERICA							
Colombia	C	127	3			3	
Uruguay	C	[1] 7					
Venezuela (alastrim)	C	34	13				

[1] For the month of January.
[2] For the month of April.

TYPHUS FEVER

[C indicates cases; D, deaths]

AFRICA							
Algeria	C	807	741				
Egypt	C	26	6				
Morocco	C	29	110	24	21	26	31
Sierra Leone	C	3	1				
Tunisia	C	382	612	223	170	141	178
Union of South Africa	C	11	1				
ASIA							
China	C	33	24	8	9		
Chosen	C	[1] 5					
Iran	C	[1] 11	40				
Iraq	C	5	4				
Japan	C		1				
Straits Settlements	C	2					

See footnotes at end of table.

WORLD DISTRIBUTION OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Con.

TYPHUS FEVER—Continued

[C indicates cases; D, deaths]

Place		January–February 1941	March 1941	April 1941—week ended— 5	12	19	26
EUROPE							
Bulgaria	C	39	32			9	
Germany	C	209	146	6	63		
Greece	C	7					
Hungary	C	40	51	3		12	30
Irish Free State	C	3	4				
Poland	C		[3] 77				
Rumania	C	337	102	12	23	2	
Spain	C				[3] 968		
Switzerland	C		2				
Turkey	C	[1] 91					
Yugoslavia	C	76					
NORTH AMERICA							
Guatemala	C	62	20				
Mexico	C	3	2		2		
Panama Canal Zone	C	1	2				
SOUTH AMERICA							
Chile	C	8	2				
Ecuador	C	21	8				
Venezuela	C	17	2				
OCEANIA							
Australia	C	3	3				
Hawaii Territory	C	2	1	7			

[1] For the month of January.
[2] For 2 weeks.
[3] For the period Jan. 26 to Apr. 12, 1941.

YELLOW FEVER

[C indicates cases; D, deaths]

Place							
AFRICA							
French Equatorial Africa	C		2				
Gold Coast	C			1			
Ivory Coast	C	[1] 3					
Spanish Guinea.[2]							
SOUTH AMERICA [3]							
Colombia:							
Antioquia Department	D	1					
Boyaca Department	D	3			1		
Intendencia of Meta	D	1					
Santander Department	D	2					
Tolima Department	D	1					

[1] Includes 2 suspected cases.
[2] For the week ended May 3, 1941, 4 deaths from yellow fever were reported in Kogo, Spanish Guinea.
[3] All yellow fever reported in South America is jungle type unless otherwise specified.

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