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## PUBLIC HEALTH EDUCATION

### THE FUNCTIONS OF THE UNIVERSITY AND OF THE PRIVATE FOUNDATION[1]

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#### INTRODUCTION

In considering the subject of public health education, certain fundamental questions naturally arise. Why are we interested in public health education? What is it and what does it include? Who are going to be the public health educators? Let us see whether we can answer these questions.

In the modern public health movement the human being has become the center of interest. Formerly the chief interest—in fact, one may say the whole interest—in public health was centered on the environment, i. e., sanitation—the prevention and control of communicable diseases through sewage treatment, garbage disposal, water purification, pasteurization of milk, inspection and control of foods, and eradication of insects. While public health will necessarily always be interested in these machineries concerned with the blocking of the several environmental routes over which communicable diseases travel and are disseminated, and in other matters pertaining to the environment in its relation to disease, the center of its interest has shifted to the human being. In dealing with this new field, the human being, health promotion, i. e., the building up of sound, vigorous, harmoniously developed body machines free from incapacitating defects and illnesses, is becoming the major interest in the new public health. Moreover, we are realizing more and more that the education of the masses in the fundamentals of health promotion and in the prevention and control of communicable and other diseases is our most effectual procedure. In matters pertaining to health promotion and to the personal factors involved in the prevention and control of communicable and other diseases, we can not deal effectively through legislation and regulation. Education is our only recourse; hence, the preponderant importance of public health education in the modern public health movement.

[1] Presented before the National Conference of Social Work, Fifty-eighth Annual Meeting, Minneapolis, June 14-20, 1931.

One may define public health education as that phase of education which is concerned with (1) acquainting the individual with the fundamentals of health promotion and with the principles and practices of prevention and control of communicable and other diseases; (2) inculcating in him an impelling appreciation for both personal and community hygiene; (3) helping him to attain certain effective skills whereby positive physical, emotional, and mental health may be maintained; and (4) developing in him lasting health habits. It is readily seen that this is a "big order" in the new public health movement. The trend is for public health education as a specialty to fall into two main lines of interests and activities. The one is concerned with adult education; the other with child health education. In adult public health education the press is largely used—news items, health columns, feature stories, advertisements, magazine articles, bulletins, posters, and similar means. In a large measure one may say that adult health education is a matter of effective journalism. Public lectures, radio talks, local study groups, demonstrations, and so on, are other procedures utilized in adult public health education. The schools of our land are taking over the problem of child health education. Methods and materials in health teaching for each of the grades, psychologically and pedagogically sound, are being developed rapidly with a view of acquainting the child with the fundamentals of health and with a view of developing within him the desired attitudes, skills, and habits.

Thus, it is seen that public health education is calling for the expert services of two types of specialists—one for adult health education and the other for school health education. However, one can not draw a sharp line between these two specialties; they overlap. Of course, these specialties must be built up on a foundation which consists of an adequate training in those sciences which acquaint one with the "make up" or structure, the "workings" or functions, and the care of the human body machine. In other words, the person who anticipates public health education as a career should have a basic training in anatomy, physiology, hygiene, and public health (including bacteriology and pathology), psychology, and sociology. Training in those subjects which acquaint one with the effective teaching of health for both adults and children should follow this scientific training.

In addition to specialists in adult and child health education, all public health work must be permeated with the idea, function, scope, and importance of public health education. To-day it is just as important for all public health workers to have an appreciation for and a general working knowledge of public health education as it is for them to know about water filtration, sewage treatment, nutrition, mental hygiene, and related subjects.

Hence public health education not only requires experts, but it must become one of the working tools for all public health workers. Already attention has been called to the importance of adequate training, on the part of the public health educator, in those basic sciences which acquaint one with the structure, functions, and care of the human body. The first principle in all public health education is knowledge of the facts involved in the promotion of health and the prevention and control of communicable diseases. Far too much of our public health education of to-day includes opinions and empiricisms. This is due largely to our innate tendency to react emotionally toward our human make-ups, whether in order or out of order. What we feel to be a good health practice we are prone to pass along as a scientific dictum. Moreover, there is that emotional proclivity to adopt and follow the single-track mind in matters pertaining to health. Hence fads and hobbies may permeate health practices and public health education.

The public health educator should and must know the facts—not only the established facts, but also the new facts which are contributed almost daily through research and investigation. The second principle in health education is to know how to present these facts to the public—adult and child—and to present them. Thus it is seen that all the interests and activities of governmental agencies, of private agencies, and of universities in matters pertaining to hygiene and public health are indirectly or directly concerned with public health education.

## THE FUNCTION OF THE UNIVERSITY IN PUBLIC HEALTH EDUCATION

More than 50 years ago the wise and far-seeing Disraeli said: "Public health is the foundation on which repose the happiness of a people and the power of a country. The care of the public health is the first duty of a statesman." The university is deeply obligated to the society which supports it, to establish and maintain leadership in all those interests and activities which contribute to the welfare of mankind and to the happiness and power of a country. Surely it has a deep obligation to society in matters pertaining to hygiene and public health.

University methods and the university spirit have contributed, in a large measure, to raising modern medicine to its present high standards. They have influenced for immeasurable good the professions of law, engineering, dentistry, nursing, teaching, and of social work. Likewise the university is meeting its obligation and accepting its responsibility in the field of public health. One many define the function of the university in the modern public health movement in one word—leadership.

Universities should contribute, and are contributing, much to the modern public health movement. Whatever they give is of direct or indirect interest to public health education. The larger universities of our land, with their medical schools and schools or departments of hygiene and public health, their schools of education, and their various departments of sociology, psychology, statistics, economics, and so on, through research and investigation have advanced and are increasing our knowledge relative to the facts of hygiene and public health, how best to utilize these facts, and how best to establish comprehensive and constructive programs of hygiene and public health. These same larger universities have given and are giving valuable service in training public health workers both for general public health work and for the specialties, including public health education. Moreover, they are advancing public health work in general and public health education in particular by seeing that public health subjects are given due consideration in the various professional training courses which are allied with public health, namely, medicine, dentistry, nursing, pharmacy, city managers, engineering, home economics, and education. Furthermore, universities equipped to do so can do much for popular health instruction through extension courses, popular lectures, radio talks, and similar activities.

In universities where schools of education are maintained and in teacher training institutions, public health education is being decidedly advanced through the training of teachers and supervisors of school health education and through acquainting the future class-room teachers with the important rôle that they must play in the school's health education program. In many respects it is this training of special teachers or supervisors of school health education and of class-room teachers in matters pertaining to health that is going to do most for the cause of public health. Practically all colleges and universities are also contributing to public health in general and public health education in particular through general informational courses in college hygiene and through their student health services.

These various services which colleges and universities are giving to public health education directly and to public health work in general may be grouped as follows:

1. Research and investigation:
   - *a.* Laboratory—Bacteriology, physiology, hygiene, etc.
   - *b.* Epidemiological—Field studies relative to the sources and transmission of disease.
   - *c.* Social and economic—Income, housing, poverty, crime, etc
   - *d.* Educational—Methods and materials in health teaching.

2. Training of public health personnel:
   *a.* Public health administrators—Health officers.
   *b.* Public health specialties—Preventive medicine and dentistry, public health nursing, laboratorians, statisticians, sanitary engineers, sanitary inspectors, epidemiologists, mental hygienists, nutrition workers, public health educators for both adult health education and for school health education, social workers.
   *c.* Experts for the various interests and specialties in public health—Tuberculosis, venereal diseases, cancer, conservation of vision and hearing, etc.

3. Special and general informational courses in hygiene and public health:
   *a.* Appropriate special courses in hygiene and public health for students in medicine, nursing, dentistry, pharmacy, engineering, teacher training, governmental administration.
   *b.* General courses for college students.
   *c.* Extension work in popular health information—Lectures, radio broadcasts, bulletins, correspondence courses.

4. Students' health service (in association with genuine physical education activities):
   *a.* Personal attention—Health examinations, prevention and correction of defects, preventive inoculations, care of ill students, etc.
   *b.* Individual advice—To students when they present themselves at the health service.
   *c.* Sanitation—Campus and off-campus sanitation, living quarters, restaurants, etc.

Let us now consider each of these services in more or less detail.

1. *Research and investigation.*—The fundamental thing in all public health education is to know the facts relative to health promotion and to the prevention and control of communicable and other diseases. With these facts at our command, the next interest is to know how these facts may be most effectively presented to the public so that the people will use them.

Universities, through productive scientific research and investigation, have contributed much to our knowledge of the nature, sources, and prevention and control of infectious and other diseases. Moreover, they have contributed a great deal to our knowledge of genetics and eugenics, and to the several factors of or approaches to health promotion, including nutrition and mental hygiene. Notwithstanding the many praiseworthy contributions to our knowledge of hygiene and public health, we are still in need of many more facts before we are able to teach the masses just what should make up a comprehensive

and constructive program of healthful living for each of the various age groups which constitute our society. Public health education should always be deeply interested in the promotion of research and investigation and in acquainting itself with the new facts that are brought out.

I have already emphasized the fact that modern public health has shifted its center of interest from the environment to the human being. This has introduced an extremely complex and difficult problem. The new field in public health is *the nature and behavior of man.* Before we can make much progress in this new field we must know a great deal more about it. This complex, difficult, troublesome, and, one is inclined to say sometimes, onerous human being presents at least four facets, each of which must be more thoroughly studied and understood before noteworthy progress may be anticipated in public health work in general and public health education in particular. These facets are the physiological, psychological, sociological, and immunological aspects. It is clearly the function of the university, through research and investigation in the various departments concerned, to add to our knowledge of this complex make-up of man. In the field of immunology, universities have already contributed a great deal; likewise, in its closely related field, the prevention and control of infectious diseases. Much has been added by our universities to our knowledge of physiology and to physiological aspects of a euthenics program. We are just in the beginning of our studies of the psychological make-up of man, including his emotions and mentality. There is much that is yet to be learned relative to society in general, its structure, its many unsolved problems of education, economics, poverty, crime, homicide, suicide, and so on, all of which have a bearing on public health and public health education. Assuredly universities will continue their productive researches and investigations with a view of helping us to understand more fully this new and most important field of public health, the human being. Noteworthy progress in public health education will be dependent on the enhancement of our knowledge of the physiological, psychological, sociological, and immunological aspects and the effective application of this knowledge to the welfare of man.

Again, let me remind you that with this centering of public health interest on the human being, we have become suddenly aware of the need for a new interest and activity in public health—*public health education.* The effective education of the masses in the fundamentals of right living is our one great hope in the modern public health movement. We need to study and to experiment with this new interest and activity with a view of utilizing it more effectively. We know so little about sound and effective health teaching. Therefore, researches and investigations relative to methods and materials in health teach-

ing for both adults (adult public health education) and for children (in school health education) must be fostered and sustained in our universities adequately equipped for this work. Not only must we learn how to teach the new facts, but we have at our command many established facts in hygiene and public health which we are not teaching effectively. At any rate, scientific departments in the university concerned with the discovery and teaching of the facts relative to hygiene and public health should join hands with departments or schools of education with a view of working out sound materials, techniques, procedures, and methods for effective health teaching. Institutions of higher learning, where teacher-training curricula are maintained, have already made important contributions to the psychology and pedagogy of health teaching.

2. *Training of public health personnel.*—No comprehensive and constructive program of public health can be anticipated unless trained personnel are forthcoming who understand the basic facts of hygiene, who are capable of teaching these facts or seeing that these facts are effectively taught, and who are capable of organizing and administering well balanced, constructive, and comprehensive public health programs. It is clearly the obligation and the function of the university equipped for the work to train public health workers. Several of the larger universities have already set up programs of study which train personnel for public health administration and for the several fields and specialties of public health work, such as public health nursing, epidemiology, laboratory work, vital statistics, mental hygiene, sanitary inspection, public health education, and similar specialties.

3. *Special and general informational courses in hygiene and public health.*—Not only should the university, through its department or division of hygiene and public health, provide appropriate courses in hygiene and public health, including public health education, for its professional training courses in medicine, dentistry, nursing, education, city managership, and engineering (this is obvious), but it should also arrange for attractive informational courses in hygiene and public health which will appeal to all the students in the university. I have already pointed out that practically all institutions of higher learning are equipped to do this, and, therefore, should contribute much to public health and public health education. It is this college course in hygiene and public health which should be of great significance in the promotion of hygiene and public health in our land. College students, generally, become the leaders in the society in which they cast their lots later on in life.

At any rate, let us assume that each college graduate has completed an interesting, effective course in college hygiene wherein the factors of health promotion, the principles and practices of prevention and

control of communicable diseases, and the sound application of these factors, principles, and practices to himself, to his family, and to his community have been impressingly and adequately considered. Assuredly he should prove to be an outstanding factor in the promotion and support of public health education and administration in the United States. Let us ever be mindful of the rôle that the college graduate should play and can play in the new public-health education.

In the promotion of popular health instruction, the university can be of great assistance through its extension division. I have in mind the productive work that the extension division of the University of Oklahoma and that other universities are doing. This type of work may be carried on in conjunction with outside voluntary health agencies. In Michigan we have the joint committee on public health education. It is made up of representatives from state-wide voluntary health agencies and organizations, from official health and educational agencies and from other agencies or institutions which have something to contribute to the interests and activities of this joint committee. Here we have a pooling of resources. The work of the committee is directed by the director of the extension division at the University of Michigan. The magnitude of the work of the joint committee is seen in the following excerpt from its annual report, July 1, 1930, to July 1, 1931:

| | |
|---|---|
| Lectures in high schools | 464 |
| Lectures to parent-teacher associations | 48 |
| Total | 512 |
| Aggregate audience | 150,000 |

Popular lectures, radio talks, demonstrations, and correspondence courses on the fundamentals of hygiene and public health should be offered by many colleges and universities.

4. *Student health service.*—Each college or university should maintain an effective student health service. The health service should function adequately with regard to personal attention, individual health advice, and sanitation. Periodic health examinations, prevention and correction of defects, care and treatment of ill students, immunization, health promotion, including mental hygiene and nutrition, and similar activities, should make up the important interests and activities of the "personal attention" aspect of the health service. Each student should be advised relative to his own particular health problems. Sanitation in all its various phases should be enforced. Not only is the student immeasurably benefited directly by an effective health service, but such a service should serve as a demonstration or teaching unit of what should constitute effective health machineries in a community. The health service should be

regarded as the practical phase or laboratory aspect of the regular teaching courses in hygiene and public health.

During the school year 1930–31 more than 80,000 visits were made by students at the University of Michigan health service. Surely effective students' health services maintained in all similar institutions will contribute much to effective public health work, including public health education, in the United States. Students who graduate from colleges and universities where effective health teaching is emphasized, and where health services are maintained, will want to see to it that these health machineries are provided for the communities in which they are to live.

### THE FUNCTION OF NONOFFICIAL HEALTH AGENCIES IN PUBLIC HEALTH EDUCATION

I was also asked to speak on the function of private foundations in public health education. I am taking the privilege of including other nonofficial health agencies as well, because their relationships to public health education are similar to those of the private foundations.

In general, we may group nonofficial health agencies into three general classes:

1. Private foundations or funds.
2. Voluntary health organizations—local, State, and National.
3. Insurance companies and commercial firms.

1. *Private foundations.*[2]—One of the outstanding social phenomena of this age has been the progression of a series of great foundations, the funds from which are utilized for social betterment in general and for public health in particular. Time will permit the enumeration of only a few of the many commendable agencies established in the United States since the movement was begun by Andrew Carnegie in 1886. We are all more or less familiar with the Carnegie Foundation, the Rockefeller Foundation, the Commonwealth Fund, the Duke Foundation, the Milbank Memorial Fund, the Children's Fund of Michigan, the Rosenwald Fund, the W. K. Kellogg Foundation, the Macy Foundation, the Elks National Foundation, the Elizabeth McCormick Memorial Foundation, and many others. Evans Clark, director of the Twentieth Century Fund, has listed 128 of these distinct or quasi foundations, giving their forms of capitalization, their methods of operation, and their fields of action. His classification of the activities of these foundations include the following: Individual aid, 48; education, 36; scientific research, 33; child welfare, 26; health, 22; social welfare, 18; international relations, 3; esthetics, 9; industry

[2] See "The Foundation; Its Place in the American Life," By Frederick P. Keppel, MacMillan Co.

and business, 7. Twenty-nine more are divided among 16 other designated fields.

2. *Voluntary health organizations.*—We are all familiar with at least some of the nation-wide voluntary associations concerned with the promotion and support of public health. At any rate, we know, or at least should know, of the valuable contributions to public health which have come and are forthcoming from the various associations which make up the National Health Council, viz, the American Child Health Association, American Heart Association, American Public Health Association, American Red Cross, American Social Hygiene Association, American Society for the Control of Cancer, National Committee for Mental Hygiene, National Committee for the Prevention of Blindness, National Organization for Public Health Nursing, and National Tuberculosis Association. Several of these have State and local branches. Other important National organizations such as the American Federation of Organizations for the Hard of Hearing, American Recreation Association, Parent-Teacher Associations, National Safety Council, and chambers of commerce are actively promoting health work. I realize that I am not naming them all. Assuredly, one is impressed with that long list of National associations listed in the Social Work Year Book of 1929, which are directly or indirectly interested in the promotion of public health work.

3. *Insurance companies and commercial firms.*—Many of the large life insurance companies are making creditable contributions to public health education, the names of some having become especially associated with their valuable and effective work in public health education. Many large commercial firms are also effectively contributing to health education in various ways, such as by means of attractive posters, creditable public health literature, bulletins, and similar means.

The subcommittee on the relation of official and nonofficial agencies in public health organization of the White House Conference on Child Health and Protection[3] classifies the type of service rendered by nonofficial agencies into seven major types:

*A.* Support of the work of other agencies or individuals by—

1. Grants for research.
2. Grants for training of personnel.
3. Grants for actual service.

*B.* Operating activity in the form of—

4. Conduct of research.
5. Standardization and consultation.
6. Propaganda and preparation of material for popular health instruction.

[3] Report of Committee A, Public Health Organization, Section III, White House Conference on Child Health and Protection.

*C.* Director service to the public—

7. Operation of nursing and clinical services and health education.

From twenty-five to thirty million dollars a year are now contributed to the public health movement in the United States by these nonofficial agencies along the seven major types of activities just named. This sum is approximately one-quarter of the estimated total amount spent annually for public health in the United States. We may assume that public health education is tied up with each of the seven major types of service enumerated above which voluntary or nonofficial health agencies are contributing to public health in the United States. It is, therefore, impossible to estimate just how much of the twenty-five to thirty millions of dollars contributed each year by these nonofficial health agencies to public health work in the United States goes directly or indirectly to public health education. Certainly the proportion which goes to health propaganda and education is of considerable magnitude. The subcommittee of the White House conference to which I have referred gives $4,358,726 as the amount which was contributed by several nonofficial health agencies to popular health instruction in the United States in 1929.

I have purposely gone into this in much detail relative to the contributions of foundations, associations, insurance companies, and commercial firms with a view of helping you to appreciate more fully and more acutely the important rôle that these agencies have played and are now playing in the promotion and support of public health in general and public health education in particular in the United States. The functions of nonofficial health agencies in public health are seen in the seven types of services already enumerated.

From the foregoing discussion it is readily seen that in several respects the functions of the university and of nonofficial health agencies are similar. So closely akin are some of these functions that universities and nonofficial health agencies have joined hands in their interests and activities to render the highest type of leadership service to public health work and public health education. Thus, the one serves as a complement to the other. Certainly many of the contributions of the university to public health along the lines of research and investigation, training of public health personnel, including public health education, and in similar ways, would not have been or be forthcoming were it not for the financial support given to the university by nonofficial health agencies.

### OFFICIAL VERSUS NONOFFICIAL HEALTH AGENCIES

The outstanding function of the university and the nonofficial health agency in public health education is that of leadership. They are the discoverers, the explorers, the experimenters, the frontiers-

men, the architects, the builders, the prophets, and the teachers of the new public health. Their objectives and efforts are to find out new facts relative to hygiene and public health, to determine the best methods whereby these new facts and the established facts may be made applicable to and utilized by society as a whole, and then to teach society to want and to support interests and machineries whereby these facts may be made available for the common good of society. Nonofficial health agencies and universities realize that, in time, as a result of their intelligent, forceful, and persistent joint efforts in promoting public health in all its completeness, the majority of individuals making up a social unit will understand the need for, and, therefore, will want to establish and maintain, by means of laws and taxation, effective official public health departments. This is the goal of nonofficial health agencies and universities in their relations to public health. When the masses are ready to take over and support a health demonstration or project which has been promoted by a nonofficial health agency, then the latter should withdraw, generally speaking, at least in theory, with a view of promoting some neglected or newly discovered field in public health until the public, in turn, is ready to take this over, and so on, ad infinitum. The unexplored fields of public health are many, indeed. I should like to see the foundations or some other of the nonofficial agencies go into the matter of local government—township, village, municipal. The welfare and progress of official public health is greatly dependent on local government. On the whole, one may say that local government, with its senile charters and laws and its untrained and emotional administrators, is not conducive to the initiation and support of meritorious official public health work. Why can not demonstrations and other effective educational procedures be set up with a view of helping the masses to understand, appreciate and want efficient local government? Assuredly, this would do much to promote official public health in the United States.

We need much more information relative to adult health education. At present this field develops sluggishly and ineffectively. We are in dire need of newer and more effective methods and materials in popular adult health instruction. This is an all-important field for investigation. I sincerely trust that some nonofficial health agency will help us out in this matter.

Attention has already been called to the supreme importance of health education in our public schools. Seeing that each school or school district in the land is administered by a superintendent or principal who understands and appreciates effective school health programs, is taught by classroom teachers who are intelligently and actively interested in the normal growth and development of the little wards entrusted to them, and has in its service an adequately

trained supervisor of health education, should be of paramount concern to all who are interested in the promotion of public health in the United States. Obviously this can be brought about best through the establishment and support of professorial chairs of health education in our teacher-training institutions—normal schools, normal colleges, and schools of education in universities. In this field nonofficial agencies can render a valuable service to public health. And so the need for the services of nonofficial health agencies goes on without end.

Let us always bear in mind that intelligent nonofficial health programs, of one kind or another, depending on local needs, may well continue in communities where satisfactory official public health programs are maintained. The former can and should serve as stimulus to and as an auxiliary of the latter. Both can mutually coexist. One may well compare the interrelationships of the interests and activities of the official and nonofficial health agencies to those of the State-supported institutions of higher learning and the endowed colleges and universities. No intelligent person would seriously advocate the abolition of a university, supported by a foundation, in a State because some difficulties had arisen between it and the State university.

Thus it is seen that the functions of the universities and of nonofficial agencies in the field of public health are extensive and important; and our concern should not be in the limitations of these functions but rather in their aggrandizement.

We all realize keenly and impatiently the social lag in matters pertaining to public health. Society moves more slowly here than in any other of its interests and activities. This is due to the fact that most people react almost wholly emotionally to health and disease. It is difficult for the masses to take an intelligent attitude toward their body machines, in order or out of order. Therefore, the millenium of official public health is incomprehensively far away. For an inconceivably long time to come we shall need the intelligent investigation, stimulus, direction, and support of nonofficial health agencies. It is difficult, indeed, for us even to speculate as to just how far we have been advanced in all matters pertaining to public health as the direct result of the intelligent and resourceful efforts and contributions of nonofficial health agencies. Assuredly the profoundest gratitude of the American people is due them. That they may continue in their efficient functions is my sincerest wish.

In dealing with the place of nonofficial health agencies in the special field of public health education, as well as in other branches of public health, we should not lose sight of the fact that efficient local, State, and Federal official health organizations are most necessary in public-health work, for it is by means of the official health agencies that the

actual sanitary knowledge and modern public health methods will be applied. There is an increasing conviction that the protection of the public health is a governmental function and duty, and that an adequately trained whole-time personnel, properly organized, is necessary for the accomplishment of the task.

Attainment and maintenance of conditions in sanitation and hygiene necessary for the mental and physical well being of a people, such as safe water and milk supplies, proper housing, hours of labor, efficient vaccination against and the control of the communicable diseases, depend not only upon education and voluntary action but largely upon police powers exercised by the government—local, State, and Federal. The very corner stone of effective public health work is the local health officer; and that office must be made one of sufficient dignity by proper remuneration and certainty of tenure to attract the right type of young man, and facilities which now exist in only a few schools should be given in every medical school to educate men for these positions.

It is apparent and inevitable that as official health agencies are established or are augmented as a result of the activities of nonofficial health agencies, there will be, for a time, some overlapping of functions. It is in this overlapping zone that misunderstandings, frictions, and even antagonisms develop. Particularly is this true in those types of services which have to do with actual direct services to the public—demonstrations, clinics, nursing, and similar services. Moreover, representatives of voluntary health agencies engaged in the promotion of special fields of public health are likely to overemphasize and overpromote their particular interests to such an extent that an unbalanced program of public health may result in the communities concerned. Again, when a voluntary health agency has given birth to a special health activity and has been solely responsible for its nourishment, growth, and development, it is difficult, indeed, for it to give away its child. While we can recount many instances of friction between official and nonofficial health agencies, most of them are due to our human instinctive and emotional make-ups. As I view it, these controversies impediments, and obstructions will vanish gradually, providing we pay more attention to the following:

1. Full time, adequately trained health officers must be employed in all official public health units. This training should include a comprehensive survey of the whole field of public health and of the functions of nonofficial agencies in public health. Each physician who anticipates public health administration as a career should devote at least one year to study of public health in a recognized school of hygiene and public health. A minimum of at least one year of study is required in order for the physician to get a comprehensive view of the modern public health and human conservation movement with all

the psychological, sociological, and economic factors involved. We can anticipate little progress in obviating misunderstandings and frictions between official and nonofficial health agencies as long as part time untrained health officers are employed.

2. Representatives of nonofficial health agencies should likewise be trained with a view of possessing a working knowledge of the entire field of public health. They should know the various factors of or approaches to health promotion and the relative values of these factors for each of the age groups. They should be familiar with the principles and practices of prevention and control of communicable diseases in general. In other words, each representative of nonofficial health agencies should understand just what is meant by a well balanced, comprehensive, and constructive program of public health. It is just as important for representatives of nonofficial health agencies to know the field of public health as it is for public health workers attached to official health departments. At any rate, the nonofficial health agency representative, adequately trained in the two major groups of interests and activities of modern public health—(*a*) health promotion for the various age periods making up our society and (*b*) the principles and practices of disease prevention and control—should be able to comprehend much more clearly the relation of his particular interests to a balanced public health program, and, therefore, be able to cooperate much more effectively with official public health agencies.

In many respects one might even expect a higher degree of training on the part of representatives of nonofficial health agencies. As a rule, their positions are more secure, and they are usually better paid. Assuredly, if they are to function efficiently as the prophets, the architects, and the builders of the new public health, they should have the highest degree of training in public health in order to help and direct society to establish comprehensive, balanced, and constructive programs of public health.

At times we are constrained to feel that some of our nonofficial health agencies have not given this matter of trained personnel the attention which it merits. Here they should establish a genuine leadership.

3. With an adequately trained personnel making up the official health departments and adequately trained representatives of nonofficial health agencies working together, then effective cooperation may be anticipated. Trained men who see clearly the entire field of public health cooperate well. The well-trained public health officer should be the pivot around which revolve the interests and activities of both official and nonofficial health agencies. It is he who should be held responsible for a smooth running public health machinery in a community.

In conclusion, I want to pay my tribute to the National Conference of Social Workers. In this day and age one can no longer differentiate between public health and social work. In certain fields, a public health worker in the modern public health movement must be a social worker, and an effective social worker must be a public health worker. I am constrained to feel that, in the future, these two interests and activities will be more fully amalgamated. At any rate, great credit is due the various agencies which make up your conference for the present achievements in public health work in general and public health education in particular.

## IMMUNIZATION OF SCHOOL CHILDREN IN KANSAS CITY, MO.

The health department of Kansas City, Mo., with the cooperation of the board of education, has conducted a campaign against diphtheria and smallpox. The following table shows what can be accomplished by intelligent work continued over several years. In 1932 more than 85 per cent of the pupils in the kindergarten and in the first four grades were immunized against diphtheria, and 88 per cent of these pupils were vaccinated against smallpox.

| | 1930 | 1931 | 1932 |
|---|---|---|---|
| Number of pupils in kindergarten and first four grades | 43,519 | 43,604 | 43,016 |
| Number immunized against diphtheria (toxin antitoxin) | 32,218 | 34,686 | 36,718 |
| Per cent immunized against diphtheria | 74.0 | 79.5 | 85.4 |
| Number vaccinated against smallpox | ---------- | 36,607 | 37,898 |
| Per cent vaccinated against smallpox | ---------- | 84.0 | 88.1 |

## COURT DECISION RELATING TO PUBLIC HEALTH

*Bovine tuberculosis eradication law held valid.*—(Minnesota Supreme Court; State ex rel. Benson, Atty. Gen., et al. *v.* Board of Com'rs of Pine County et al., 243 N. W. 851; decided July 15, 1932.) A 1923 statute (ch. 269) entitled "An act relating to the testing of cattle for tuberculosis and authorizing county boards to appropriate money therefor, authorized a county board, upon the petition of a majority of the cattle owners in the county, to provide for the tuberculin testing of cattle. Chapter 360 of the 1931 laws entitled "An act to amend Mason's Minnesota Statutes of 1927, sections 5416, 5417, and 5418, relating to the eradication of bovine tuberculosis," gave discretionary authority to a county board to act without a petition being filed and made it mandatory for it to act where a petition had been filed. The 1931 law also provided that, where a petition had been filed under the

old law and the county board had not acted, the board was required to act upon the filing of a petition by 100 or more resident cattle owners.

A mandamus proceeding was instituted against the commissioners and auditor of Pine County to compel them to comply with this 1931 statute by contracting with the State livestock sanitary board for the testing of all cattle in the county. The trial court overruled a demurrer to the petition, and, upon appeal from such order, the constitutionality of the amendatory statute was questioned. The supreme court pointed out that it had held the original 1923 law constitutional, and that, respecting the contention in the instant case that the affairs of counties were being unconstitutionally dealt with, the argument proceeded upon a nonexistent basis. Said the court:

* * * the subject matter of both acts is not regulation of counties or county affairs. Rather it is the prevention, so far as possible, of tuberculosis in cattle and its spread to human beings. The counties and their officers are made use of by the State not to effect any local or county purpose but as agencies in the performance of its own paramount governmental duty to protect public health. * * * The subject matter of the statute is a State affair, its purpose a State purpose. Nothing purely local to county or other municipality is dealt with.

Another contention made by appellants and answered adversely by the court was that the 1931 act violated the provision of the State constitution that "no law shall embrace more than one subject, which shall be expressed in its title."

With regard to another point raised by appellants, namely, that the 1931 statute vested resident taxpayers with power to govern the corporate action of the county because the county board was required to act upon the filing of the requisite petition, the court held that the act did not delegate legislative power, saying:

* * * We repeat that it is not a county affair that is being dealt with. It is a State affair. That the legislature has not made tuberculin tests everywhere mandatory is not for lack of power but for lack of the will. * * *

We have here a general law applicable throughout the State. * * * It applies in one county precisely as in another. The law is everywhere in effect as law. But it does not become the duty of a given board of county commissioners to proceed until they have the petition required. It is no objection, on constitutional grounds, that procedure under the law is so conditioned. Nor is there delegation of legislative power. The law-making power has been fully exercised. What is left is for executive power, which must proceed upon the conditions and in the manner declared by the law. In that is nothing strange or offensive to constitutional restrictions. * * *

# DEATHS DURING WEEK ENDED SEPTEMBER 17, 1932

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

| | Week ended Sept. 17, 1932 | Corresponding week, 1931 |
|---|---|---|
| Data from 85 large cities of the United States: | | |
| Total deaths | 6,504 | 7,510 |
| Deaths per 1,000 population, annual basis | 9.3 | 10.9 |
| Deaths under 1 year of age | 568 | 737 |
| Deaths under 1 year of age per 1,000 estimated live births [1] | 47 | 57 |
| Deaths per 1,000 population, annual basis, first 37 weeks of year | 11.2 | 12.1 |
| Data from industrial-insurance companies: | | |
| Policies in force | 70,636,403 | 74,883,159 |
| Number of death claims | 12,516 | 12,059 |
| Death claims per 1,000 policies in force, annual rate | 9.3 | 8.4 |
| Death claims per 1,000 policies, first 37 weeks of year, annual rate | 9.7 | 9.9 |

[1] 1932, 81 cities; 1931, 77 cities.

# 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

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

**Reports for Weeks Ended September 24, 1932, and September 26, 1931**

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 24, 1932, and September 26, 1931*

| Division and State | Diphtheria | | Influenza | | Measles | | Meningococcus meningitis | |
|---|---|---|---|---|---|---|---|---|
| | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 |
| New England States: | | | | | | | | |
| Maine | 1 | 5 | | | | 15 | 0 | 1 |
| New Hampshire | | 4 | | | | 1 | 0 | 0 |
| Vermont | | | | | | 1 | 0 | 0 |
| Massachusetts | 19 | 30 | | 4 | 20 | 18 | 3 | 4 |
| Rhode Island | 3 | 1 | | | 5 | 6 | 0 | 0 |
| Connecticut | 3 | 3 | 3 | | 4 | 5 | 0 | 2 |
| Middle Atlantic States: | | | | | | | | |
| New York | 49 | 55 | [1]7 | [1]6 | 49 | 55 | 7 | 5 |
| New Jersey | 36 | 15 | 4 | | 44 | 10 | 0 | 4 |
| Pennsylvania | 62 | 68 | | | 46 | 91 | 3 | 6 |
| East North Central States: | | | | | | | | |
| Ohio | 51 | 80 | | 10 | 31 | 28 | 2 | 1 |
| Indiana | 61 | 19 | 26 | 6 | 11 | 12 | 4 | 1 |
| Illinois | 82 | 63 | 7 | 266 | 9 | 85 | 0 | 11 |
| Michigan | 13 | 20 | 1 | | 26 | 13 | 0 | 8 |
| Wisconsin | 9 | 10 | 15 | 10 | 16 | 8 | 1 | 0 |
| West North Central States: | | | | | | | | |
| Minnesota | 10 | 10 | 2 | 2 | 11 | 2 | 3 | 0 |
| Iowa | 16 | 9 | | | 4 | 2 | 1 | 2 |
| Missouri | 63 | 55 | | 1 | 1 | | 2 | 0 |
| North Dakota | 2 | 2 | | | 5 | | 0 | 4 |
| South Dakota | 2 | 1 | | | 3 | 1 | 0 | 0 |
| Nebraska | 11 | 14 | | | 10 | | 0 | 0 |
| Kansas | 18 | 6 | 3 | | 8 | 6 | 0 | 0 |
| South Atlantic States: | | | | | | | | |
| Delaware | 6 | 2 | | | | | 0 | 0 |
| Maryland [2] | 20 | 40 | 11 | 8 | 3 | 2 | 0 | 1 |
| District of Columbia | 3 | 11 | 1 | 2 | 1 | 1 | 0 | 1 |
| Virginia | 48 | | | | 10 | | 0 | |
| West Virginia | 38 | 28 | 13 | 12 | 9 | 5 | 1 | 0 |
| North Carolina [2] | 67 | 129 | 5 | 1 | 16 | 4 | 1 | 0 |
| South Carolina | 39 | 28 | 209 | 113 | 10 | 7 | 0 | 0 |
| Georgia [2] | 56 | 56 | 15 | 6 | 1 | 2 | 0 | 0 |
| Florida [2] | 24 | 17 | 1 | | | | 0 | 0 |
| East South Central States: | | | | | | | | |
| Kentucky | 81 | 147 | | | | 10 | 1 | 0 |
| Tennessee [4] | 103 | 74 | 7 | 2 | 1 | | 3 | 4 |
| Alabama [2] | 80 | 95 | 8 | 1 | 1 | 1 | 1 | 1 |
| Mississippi | 39 | 112 | | | | | 0 | 0 |

See footnotes at end of table.

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 24, 1932, and September 26, 1931*—Continued

| Division and State | Diphtheria | | Influenza | | Measles | | Meningococcus meningitis | |
|---|---|---|---|---|---|---|---|---|
| | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 |
| West South Central States: | | | | | | | | |
| Arkansas | 43 | 28 | 8 | | | 2 | 1 | 0 |
| Louisiana | 24 | 44 | 8 | | 1 | 3 | 0 | 2 |
| Oklahoma [5] | 74 | 95 | 15 | 12 | 1 | 1 | 0 | 0 |
| Texas [3] | 86 | 22 | 43 | 2 | 1 | | 1 | 0 |
| Mountain States: | | | | | | | | |
| Montana | 2 | 2 | | | 45 | 3 | 0 | 0 |
| Idaho | 13 | 2 | | | 2 | | 1 | 0 |
| Wyoming | | | | | 2 | 1 | 0 | 0 |
| Colorado | 4 | 10 | | | 4 | 6 | 2 | 0 |
| New Mexico | 8 | 2 | | | 3 | 1 | 0 | 0 |
| Arizona | | 4 | | 3 | | 1 | 0 | 0 |
| Utah [2 4] | | | | 5 | 2 | | 0 | 1 |
| Pacific States: | | | | | | | | |
| Washington | 2 | 7 | | | 7 | 8 | 1 | 0 |
| Oregon | 1 | 1 | 6 | 15 | 31 | 7 | 0 | 0 |
| California | 49 | 56 | 252 | 23 | 18 | 37 | 2 | 6 |
| | 1,421 | 1,482 | 670 | 510 | 472 | 461 | 41 | 65 |

| Division and State | Poliomyelitis | | Scarlet fever | | Smallpox | | Typhoid fever | |
|---|---|---|---|---|---|---|---|---|
| | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 |
| New England States: | | | | | | | | |
| Maine | 5 | 7 | 9 | 6 | 0 | 0 | 18 | 4 |
| New Hampshire | 2 | 2 | 10 | 0 | 0 | 0 | 0 | 3 |
| Vermont | 0 | 4 | 2 | 3 | 0 | 0 | 0 | 0 |
| Massachusetts | 2 | 105 | 94 | 75 | 0 | 0 | 6 | 7 |
| Rhode Island | 0 | 8 | 12 | 9 | 0 | 0 | 0 | 1 |
| Connecticut | 0 | 81 | 20 | 2 | 0 | 0 | 5 | 5 |
| Middle Atlantic States: | | | | | | | | |
| New York | 18 | 327 | 141 | 124 | 0 | 0 | 51 | 54 |
| New Jersey | 51 | 93 | 56 | 35 | 0 | 0 | 10 | 16 |
| Pennsylvania | 156 | 49 | 160 | 143 | 0 | 0 | 100 | 59 |
| East North Central States: | | | | | | | | |
| Ohio | 0 | 14 | 176 | 139 | 11 | 1 | 61 | 183 |
| Indiana | 0 | 3 | 70 | 18 | 0 | 3 | 17 | 16 |
| Illinois | 8 | 62 | 155 | 110 | 5 | 11 | 49 | 53 |
| Michigan | 5 | 138 | 92 | 60 | 0 | 1 | 10 | 22 |
| Wisconsin | 2 | 70 | 25 | 21 | 0 | 4 | 6 | 8 |
| West North Central States: | | | | | | | | |
| Minnesota | 2 | 62 | 37 | 39 | 0 | 3 | 9 | 19 |
| Iowa | 1 | 9 | 20 | 13 | 2 | 8 | 7 | 8 |
| Missouri | 0 | 0 | 61 | 21 | 0 | 5 | 13 | 18 |
| North Dakota | 0 | 2 | 2 | 10 | 0 | 1 | 8 | 5 |
| South Dakota | 0 | 1 | 9 | 1 | 0 | 1 | 0 | 5 |
| Nebraska | 0 | 1 | 21 | 4 | 0 | 0 | 1 | 1 |
| Kansas | 5 | 1 | 48 | 20 | 0 | 3 | 7 | 14 |
| South Atlantic States: | | | | | | | | |
| Delaware | 0 | 0 | 6 | 1 | 0 | 0 | 4 | 1 |
| Maryland [3] | 2 | 5 | 28 | 33 | 0 | 0 | 31 | 53 |
| District of Columbia | 2 | 2 | 5 | 9 | 0 | 0 | 2 | 3 |
| Virginia | 3 | | 50 | | 0 | | 39 | |
| West Virginia | 3 | 3 | 44 | 24 | 1 | 0 | 67 | 68 |
| North Carolina [3] | 2 | 5 | 70 | 75 | 0 | 0 | 21 | 41 |
| South Carolina | 2 | 0 | 7 | 18 | 0 | 2 | 27 | 49 |
| Georgia [3] | 0 | 4 | 31 | 25 | 2 | 0 | 38 | 33 |
| Florida [3] | 0 | 1 | 4 | 3 | 0 | 0 | 7 | 12 |
| East South Central States: | | | | | | | | |
| Kentucky | 2 | 2 | 86 | 31 | 0 | 0 | 98 | 61 |
| Tennessee [4] | 2 | 7 | 56 | 65 | 0 | 3 | 40 | 82 |
| Alabama [3] | 2 | 1 | 67 | 28 | 0 | 1 | 19 | 31 |
| Mississippi | 0 | 2 | 15 | 21 | 0 | 3 | 5 | 27 |

See footnotes at end of table.

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 24, 1932, and September 26, 1931*—Continued

| Division and State | Poliomyelitis | | Scarlet fever | | Smallpox | | Typhoid fever | |
|---|---|---|---|---|---|---|---|---|
| | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 | Week ended Sept. 24, 1932 | Week ended Sept. 26, 1931 |
| West South Central States: | | | | | | | | |
| Arkansas | 0 | 1 | 11 | 14 | 1 | 1 | 27 | 15 |
| Louisiana | 3 | 0 | 6 | 11 | 0 | 0 | 7 | 56 |
| Oklahoma [5] | 2 | 0 | 18 | 31 | 0 | 1 | 27 | 52 |
| Texas [3] | 0 | 0 | 35 | 30 | 0 | 1 | 33 | 20 |
| Mountain States: | | | | | | | | |
| Montana | 0 | 5 | 8 | 9 | 0 | 2 | 6 | 10 |
| Idaho | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 5 |
| Wyoming | 0 | 0 | 2 | 5 | 0 | 1 | 1 | 1 |
| Colorado | 0 | 0 | 41 | 11 | 1 | 1 | 29 | 7 |
| New Mexico | 1 | 2 | 9 | 2 | 0 | 0 | 9 | 5 |
| Arizona | 1 | 0 | 2 | 5 | 0 | 0 | 3 | 3 |
| Utah [2] [4] | 0 | 1 | 4 | 3 | 0 | 0 | 2 | 2 |
| Pacific States: | | | | | | | | |
| Washington | 5 | 4 | 20 | 42 | 3 | 6 | 7 | 4 |
| Oregon | 1 | 1 | 6 | 9 | 0 | 6 | 1 | 8 |
| California | 3 | 10 | 62 | 62 | 4 | 6 | 5 | 8 |
| | 293 | 1,095 | 1,915 | 1,422 | 30 | 75 | 932 | 1,158 |

[1] New York City only.
[2] Week ended Friday.
[3] Typhus fever, week ended Sept. 24, 1932, 27 cases: 1 case in North Carolina, 4 cases in Georgia, 1 case in Florida, 8 cases in Alabama, and 13 cases in Texas.
[4] Rocky Mountain spotted or tick fever, week ended Sept. 24, 1932, 2 cases: 1 case in Tennessee and 1 case in Utah.
[5] Figures for 1932 are exclusive of Oklahoma City and Tulsa.

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

| State | Meningococcus meningitis | Diphtheria | Influenza | Malaria | Measles | Pellegra | Poliomyelitis | Scarlet fever | Smallpox | Typhoid fever |
|---|---|---|---|---|---|---|---|---|---|---|
| *July, 1932* | | | | | | | | | | |
| Illinois | 7 | 116 | 42 | 15 | 629 | ---- | 22 | 342 | 20 | 150 |
| *August, 1932* | | | | | | | | | | |
| Alabama | 4 | 109 | 24 | 355 | 1 | 79 | 4 | 71 | 0 | 134 |
| Idaho | 1 | 7 | ---- | ---- | 2 | ---- | 0 | 7 | 7 | 20 |
| Illinois | 18 | 148 | 35 | 11 | 122 | 1 | 40 | 303 | 5 | 229 |
| Louisiana | 3 | 84 | 31 | 161 | 21 | 21 | 9 | 30 | 4 | 169 |
| Montana | 1 | 1 | 8 | ---- | 202 | ---- | 0 | 20 | 17 | 23 |
| Nevada | ---- | ---- | 3 | ---- | 1 | ---- | 0 | 7 | 0 | 7 |
| Oklahoma [1] | 3 | 127 | 54 | 234 | 2 | 20 | 2 | 41 | 13 | 273 |
| South Carolina | ---- | 88 | 437 | 1,502 | 65 | 391 | 12 | 14 | 0 | 178 |
| South Dakota | 2 | 16 | 10 | ---- | 4 | ---- | 4 | 10 | 0 | 11 |
| Washington | 1 | 12 | 24 | ---- | 30 | ---- | 3 | 56 | 23 | 30 |
| West Virginia | 2 | 77 | 70 | ---- | 125 | 1 | 10 | 59 | 0 | 277 |

[1] Exclusive of Oklahoma City and Tulsa.

*July, 1932*

| Illinois: | Cases |
|---|---|
| Chicken pox | 332 |
| Dysentery (amebic) | 7 |
| Dysentery (bacillary) | 14 |
| German measles | 10 |
| Lead poisoning | 2 |
| Lethargic encephalitis | 3 |
| Mumps | 80 |
| Ophthalmia neonatorum | 6 |
| Paratyphoid fever | 8 |
| Psittacosis | 3 |
| Puerperal septicemia | 9 |
| Rabies in animals | 5 |
| Septic sore throat | 8 |
| Tetanus | 7 |
| Trachoma | 4 |
| Tularaemia | 1 |
| Undulant fever | 13 |
| Vincent's angina | 28 |
| Whooping cough | 1,125 |

*August, 1932*

| | |
|---|---|
| Actinomycosis: | |
| Illinois | 1 |
| Anthrax: | |
| South Dakota | 6 |
| Chicken pox: | |
| Alabama | 4 |
| Idaho | 1 |
| Illinois | 111 |
| Louisiana | 1 |
| Montana | 3 |
| Nevada | 1 |
| Oklahoma [1] | 5 |
| South Carolina | 61 |
| South Dakota | 5 |
| Washington | 53 |
| West Virginia | 13 |
| Dengue: | |
| Alabama | 1 |
| Diarrhea: | |
| South Carolina | 632 |
| Dysentery: | |
| Illinois (amebic) | 3 |
| Illinois (bacillary) | 109 |
| Louisiana | 4 |
| Nevada | 1 |
| Oklahoma [1] | 14 |
| German measles: | |
| Illinois | 8 |
| Montana | 1 |
| Washington | 4 |
| Hookworm disease: | |
| Louisiana | 10 |
| South Carolina | 233 |
| Impetigo contagiosa: | |
| Illinois | 5 |
| Montana | 7 |
| Oklahoma [1] | 3 |
| Lead poisoning: | |
| Illinois | 3 |
| Leprosy: | |
| Louisiana | 2 |
| Lethargic encephalitis: | |
| Alabama | 4 |
| Illinois | 27 |
| Montana | 1 |
| South Carolina | 1 |
| Washington | 1 |
| Mumps: | |
| Alabama | 40 |
| Idaho | 16 |
| Illinois | 47 |
| Louisiana | 2 |
| Montana | 4 |
| Nevada | 1 |
| Oklahoma [1] | 11 |
| South Carolina | 117 |
| South Dakota | 2 |
| Washington | 15 |
| West Virginia | 1 |
| Ophthalmia neonatorum: | |
| Illinois | 9 |
| Louisiana | 1 |
| Oklahoma [1] | 1 |
| South Carolina | 19 |
| Paratyphoid fever: | |
| Illinois | 9 |
| Louisiana | 2 |
| South Carolina | 19 |
| Puerperal septicemia: | |
| Illinois | 2 |
| Rabies in animals: | |
| Illinois | 5 |
| Louisiana | 4 |
| South Carolina | 7 |
| Washington | 1 |
| Rocky Mountain spotted or tick fever: | |
| Montana | 2 |
| Nevada | 1 |
| Scabies: | |
| Montana | 6 |
| Septic sore throat: | |
| Illinois | 12 |
| Montana | 13 |
| Oklahoma [1] | 24 |
| South Dakota | 1 |
| Washington | 1 |
| Silicosis: | |
| Montana | 4 |
| Tetanus: | |
| Illinois | 4 |
| Louisiana | 8 |
| Oklahoma [1] | 1 |
| South Carolina | 1 |
| South Dakota | 4 |
| Washington | 1 |
| Trachoma: | |
| Illinois | 2 |
| Louisiana | 1 |
| Oklahoma [1] | 3 |
| South Dakota | 1 |
| Tularaemia: | |
| Alabama | 1 |
| Montana | 2 |
| Nevada | 6 |
| Washington | 1 |

[1] Exclusive of Oklahoma City and Tulsa.

| Typhus fever: | Cases |
|---|---|
| Alabama | 26 |
| Louisiana | 5 |
| South Carolina | 3 |
| Undulant fever: | |
| Alabama | 4 |
| Idaho | 1 |
| Illinois | 7 |
| Louisiana | 3 |
| Washington | 1 |
| Vincent's angina: | |
| Illinois | 46 |
| Vincent's infection: | |
| Washington | 2 |

| Whooping cough: | Cases |
|---|---|
| Alabama | 74 |
| Idaho | 4 |
| Illinois | 690 |
| Louisiana | 16 |
| Montana | 108 |
| Nevada | 15 |
| Oklahoma [1] | 31 |
| South Carolina | 138 |
| South Dakota | 47 |
| Washington | 26 |
| West Virginia | 134 |

## WEEKLY REPORTS FROM CITIES

*City reports for week ended September 17, 1932*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding weeks of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded, and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1923 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

| Division, State, and city | Chicken pox, cases reported | Diphtheria | | Influenza | | Measles, cases reported | Mumps, cases reported | Pneumonia, deaths reported |
|---|---|---|---|---|---|---|---|---|
| | | Cases, estimated expectancy | Cases reported | Cases reported | Deaths reported | | | |
| NEW ENGLAND | | | | | | | | |
| Maine: | | | | | | | | |
| Portland | 0 | 0 | 1 | | 0 | 0 | 0 | 3 |
| New Hampshire: | | | | | | | | |
| Concord | 0 | 0 | 1 | | 0 | 0 | 0 | 1 |
| Nashua | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Vermont: | | | | | | | | |
| Barre | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Burlington | 6 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Massachusetts: | | | | | | | | |
| Boston | 5 | 13 | 8 | 1 | 0 | 7 | 7 | 12 |
| Fall River | 0 | 1 | 3 | | 0 | 1 | 0 | 0 |
| Springfield | 1 | 1 | 0 | | 0 | 0 | 0 | 1 |
| Worcester | 0 | 2 | 0 | | 0 | 0 | 0 | 1 |
| Rhode Island: | | | | | | | | |
| Pawtucket | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Providence | 0 | 2 | 0 | | 0 | 2 | 2 | 1 |
| Connecticut: | | | | | | | | |
| Bridgeport | 0 | 2 | 0 | | 0 | 3 | 0 | 1 |
| Hartford | 0 | 1 | 2 | 1 | 0 | 1 | 0 | 1 |
| New Haven | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 1 |
| MIDDLE ATLANTIC | | | | | | | | |
| New York: | | | | | | | | |
| Buffalo | 2 | 6 | 3 | 1 | 0 | 1 | 0 | 7 |
| New York | 24 | 63 | 16 | 8 | 8 | 28 | 39 | 54 |
| Rochester | 1 | 2 | 1 | | 0 | 0 | 0 | 0 |
| Syracuse | 1 | 0 | 0 | | 0 | 0 | 0 | 2 |
| New Jersey: | | | | | | | | |
| Camden | 1 | 1 | 5 | | 0 | 0 | 0 | 1 |
| Newark | 2 | 6 | 3 | 2 | 0 | 5 | 5 | 1 |
| Trenton | 1 | 0 | 1 | | 0 | 0 | 0 | 1 |
| Pennsylvania: | | | | | | | | |
| Philadelphia | 5 | 18 | 2 | 1 | 0 | 2 | 3 | 10 |
| Pittsburgh | 3 | 9 | 3 | 1 | 1 | 2 | 17 | 9 |
| Reading | 0 | 1 | 1 | | 0 | 0 | 0 | 1 |

[1] Exclusive of Oklahoma City and Tulsa.

*City reports for week ended September 17, 1932*—Continued

| Division, State, and city | Chicken pox, cases reported | Diphtheria | | Influenza | | Measles, cases reported | Mumps, cases reported | Pneumonia, deaths reported |
|---|---|---|---|---|---|---|---|---|
| | | Cases, estimated expectancy | Cases reported | Cases reported | Deaths reported | | | |
| **EAST NORTH CENTRAL** | | | | | | | | |
| **Ohio:** | | | | | | | | |
| Cincinnati | 0 | 4 | 2 | | 0 | 0 | 0 | 4 |
| Cleveland | 7 | 14 | 2 | 2 | 0 | 1 | 2 | 4 |
| Columbus | 0 | 2 | 1 | | 0 | 8 | 0 | 1 |
| Toledo | 1 | 3 | 1 | | 0 | 2 | 0 | 1 |
| **Indiana:** | | | | | | | | |
| Fort Wayne | | 1 | | | | | | |
| Indianapolis | 1 | 3 | 0 | | 0 | 2 | 9 | 5 |
| South Bend | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Terre Haute | 0 | 0 | 0 | | 0 | 0 | 0 | 1 |
| **Illinois:** | | | | | | | | |
| Chicago | 20 | 48 | 14 | 2 | 1 | 5 | 3 | 30 |
| Springfield | 0 | 0 | 1 | | 0 | 1 | 0 | 1 |
| **Michigan:** | | | | | | | | |
| Detroit | 1 | 27 | 9 | 1 | 0 | 7 | 0 | 5 |
| Flint | 1 | 1 | 0 | | 0 | 0 | 1 | 0 |
| Grand Rapids | 0 | 0 | 0 | | 0 | 0 | 3 | 1 |
| **Wisconsin:** | | | | | | | | |
| Kenosha | 3 | 0 | 1 | | 0 | 2 | 0 | 0 |
| Milwaukee | 9 | 5 | 0 | | 0 | 0 | 5 | 1 |
| Racine | 0 | 0 | 0 | | 0 | 0 | 0 | 1 |
| Superior | 1 | 1 | 0 | | 0 | 1 | 0 | 0 |
| **WEST NORTH CENTRAL** | | | | | | | | |
| **Minnesota:** | | | | | | | | |
| Duluth | 0 | 0 | 0 | | 0 | 0 | 1 | 0 |
| Minneapolis | 0 | 11 | 4 | | 0 | 1 | 1 | 2 |
| St. Paul | 4 | 4 | 2 | | 0 | 0 | 2 | 0 |
| **Iowa:** | | | | | | | | |
| Des Moines | 0 | 0 | 1 | | | 0 | 0 | |
| Sioux City | 0 | 1 | 1 | | | 1 | 0 | |
| Waterloo | 0 | 0 | 0 | | | 0 | 0 | |
| **Missouri:** | | | | | | | | |
| Kansas City | 0 | 2 | 2 | | 0 | 0 | 0 | 1 |
| St. Joseph | 0 | 0 | 8 | | 0 | 0 | 0 | 1 |
| St. Louis | 1 | 16 | 4 | | | 1 | 3 | 4 |
| **North Dakota:** | | | | | | | | |
| Fargo | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Grand Forks | 0 | 0 | 0 | | | 0 | 0 | |
| **South Dakota:** | | | | | | | | |
| Aberdeen | 0 | 0 | 0 | | | 0 | 0 | |
| **Nebraska:** | | | | | | | | |
| Omaha | 0 | 5 | 5 | | 0 | 0 | 1 | 1 |
| **Kansas:** | | | | | | | | |
| Topeka | 0 | 1 | 0 | | 0 | 3 | 2 | 0 |
| Wichita | 0 | 1 | 1 | | 0 | 0 | 0 | 1 |
| **SOUTH ATLANTIC** | | | | | | | | |
| **Delaware:** | | | | | | | | |
| Wilmington | 0 | 1 | 0 | | 0 | 0 | 0 | 0 |
| **Maryland:** | | | | | | | | |
| Baltimore | 3 | 11 | 2 | 1 | 1 | 0 | 3 | 10 |
| Cumberland | 0 | 1 | 0 | | 0 | 0 | 0 | 0 |
| Frederick | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| **District of Columbia:** | | | | | | | | |
| Washington | 1 | 8 | 0 | | 0 | 2 | 0 | 12 |
| **Virginia:** | | | | | | | | |
| Lynchburg | 0 | 1 | 0 | | 0 | 0 | 0 | 0 |
| Norfolk | 0 | 1 | 0 | | 0 | 0 | 0 | 2 |
| Richmond | 0 | 9 | 2 | | 0 | 0 | 0 | 2 |
| Roanoke | 0 | 3 | 1 | | 0 | 0 | 0 | 0 |
| **West Virginia:** | | | | | | | | |
| Charleston | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Huntington | 0 | | 2 | | 0 | 0 | 0 | 0 |
| Wheeling | 1 | 1 | 0 | | 0 | 0 | 0 | 1 |
| **North Carolina:** | | | | | | | | |
| Raleigh | 0 | 2 | 1 | | 0 | 0 | 0 | 0 |
| Wilmington | 0 | 0 | 0 | | 0 | 0 | 0 | 1 |
| Winston-Salem | 0 | 3 | 0 | | 0 | 3 | 0 | 2 |

*City reports for week ended September 17, 1932*—Continued

| Division, State, and city | Chicken pox, cases reported | Diphtheria | | Influenza | | Measles, cases reported | Mumps, cases reported | Pneumonia, deaths reported |
|---|---|---|---|---|---|---|---|---|
| | | Cases, estimated expectancy | Cases reported | Cases reported | Deaths reported | | | |
| **SOUTH ATLANTIC—con.** | | | | | | | | |
| South Carolina: | | | | | | | | |
| Charleston | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 1 |
| Columbia | 0 | 1 | 1 | | 0 | 0 | 0 | 3 |
| Greenville | 1 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Georgia: | | | | | | | | |
| Atlanta | 0 | 4 | 0 | 2 | 0 | 1 | 0 | 2 |
| Brunswick | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Savannah | 0 | 1 | 3 | | 1 | 1 | 0 | 1 |
| Florida: | | | | | | | | |
| Miami | 0 | 2 | 0 | | 0 | 0 | 2 | 0 |
| Tampa | 0 | 1 | 6 | | 0 | 0 | 0 | 1 |
| **EAST SOUTH CENTRAL** | | | | | | | | |
| Kentucky: | | | | | | | | |
| Covington | | 0 | | | | | | |
| Lexington | 0 | | 0 | | 0 | 0 | 0 | 1 |
| Louisville | 0 | | 1 | | 0 | 0 | 4 | 7 |
| Tennessee: | | | | | | | | |
| Memphis | 0 | 3 | 5 | | 0 | 0 | 0 | 2 |
| Nashville | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 |
| Alabama: | | | | | | | | |
| Birmingham | 0 | 3 | 1 | 1 | 1 | 0 | 0 | 2 |
| Mobile | 0 | 1 | 2 | | 0 | 0 | 1 | 0 |
| Montgomery | 0 | 2 | 2 | | | 0 | 0 | |
| **WEST SOUTH CENTRAL** | | | | | | | | |
| Arkansas: | | | | | | | | |
| Fort Smith | 0 | 0 | 0 | | | 0 | 0 | |
| Little Rock | 0 | 0 | 1 | | 0 | 0 | 0 | 1 |
| Louisiana: | | | | | | | | |
| New Orleans | 0 | 7 | 13 | | 0 | 0 | 0 | 6 |
| Shreveport | 0 | 1 | 0 | | 0 | 0 | 1 | 1 |
| Oklahoma: | | | | | | | | |
| Oklahoma City | 0 | 2 | 5 | | 0 | 0 | 0 | 3 |
| Tulsa | 0 | 1 | 0 | | | 0 | 0 | |
| Texas: | | | | | | | | |
| Dallas | 0 | 5 | 28 | | 0 | 0 | 0 | 4 |
| Fort Worth | 0 | 1 | 3 | | 1 | 0 | 0 | 1 |
| Galveston | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Houston | 0 | 5 | 4 | | 1 | 2 | 1 | 5 |
| San Antonio | 0 | 2 | 3 | | 0 | 0 | 0 | 1 |
| **MOUNTAIN** | | | | | | | | |
| Montana: | | | | | | | | |
| Billings | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Great Falls | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Helena | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Missoula | 2 | 0 | 0 | | 0 | 0 | 0 | 1 |
| Idaho: | | | | | | | | |
| Boise | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Colorado: | | | | | | | | |
| Denver | 1 | 6 | 0 | | 1 | 2 | 2 | 3 |
| Pueblo | 1 | 0 | 0 | | 0 | 0 | 0 | 0 |
| New Mexico: | | | | | | | | |
| Albuquerque | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Arizona: | | | | | | | | |
| Phoenix | 0 | 1 | 0 | | 0 | 0 | 0 | 0 |
| Utah: | | | | | | | | |
| Salt Lake City | 0 | 2 | 0 | | 0 | 0 | 1 | 2 |
| Nevada: | | | | | | | | |
| Reno | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| **PACIFIC** | | | | | | | | |
| Washington: | | | | | | | | |
| Seattle | 3 | 3 | 0 | | | 1 | 5 | |
| Spokane | 1 | 0 | 0 | | | 1 | 0 | |
| Tacoma | 0 | 3 | 0 | | 0 | 1 | 0 | 2 |
| Oregon: | | | | | | | | |
| Portland | 0 | 4 | 0 | | 0 | 1 | 0 | 2 |
| Salem | 0 | 0 | 0 | | 0 | 1 | 1 | 0 |
| California: | | | | | | | | |
| Los Angeles | 1 | 17 | 14 | 85 | 3 | 1 | 9 | 6 |
| Sacramento | 5 | 1 | 0 | | 0 | 0 | 1 | 0 |
| San Francisco | 32 | 5 | 1 | 5 | 0 | 7 | 9 | 4 |

*City reports for week ended September 17, 1932*—Continued

| Division, State, and city | Scarlet fever | | Smallpox | | | Tuberculosis, deaths reported | Typhoid fever | | | Whooping cough, cases reported | Deaths all causes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases, estimated expectancy | Cases reported | Cases, estimated expectancy | Cases reported | Deaths reported | | Cases, estimated expectancy | Cases reported | Deaths reported | | |
| **NEW ENGLAND** | | | | | | | | | | | |
| Maine: | | | | | | | | | | | |
| Portland | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 22 |
| New Hampshire: | | | | | | | | | | | |
| Concord | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Nashua | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ---- |
| Vermont: | | | | | | | | | | | |
| Barre | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| Burlington | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| Massachusetts: | | | | | | | | | | | |
| Boston | 17 | 25 | 0 | 0 | 0 | 7 | 2 | 5 | 1 | 16 | 161 |
| Fall River | 1 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 22 |
| Springfield | 1 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 28 |
| Worcester | 4 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 38 |
| Rhode Island: | | | | | | | | | | | |
| Pawtucket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| Providence | 3 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 24 | 48 |
| Connecticut: | | | | | | | | | | | |
| Bridgeport | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 29 |
| Hartford | 1 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 39 |
| New Haven | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 16 | 30 |
| **MIDDLE ATLANTIC** | | | | | | | | | | | |
| New York: | | | | | | | | | | | |
| Buffalo | 6 | 14 | 0 | 0 | 0 | 15 | 2 | 0 | 0 | 64 | 129 |
| New York | 24 | 30 | 0 | 0 | 0 | 81 | 34 | 34 | 2 | 153 | 1,206 |
| Rochester | 2 | 5 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 6 | 41 |
| Syracuse | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 47 |
| New Jersey: | | | | | | | | | | | |
| Camden | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 36 |
| Newark | 3 | 1 | 0 | 0 | 0 | 5 | 1 | 1 | 0 | 16 | 68 |
| Trenton | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 2 | 36 |
| Pennsylvania: | | | | | | | | | | | |
| Philadelphia | 19 | 20 | 0 | 0 | 0 | 16 | 8 | 9 | 2 | 27 | 323 |
| Pittsburgh | 10 | 12 | 0 | 0 | 0 | 5 | 4 | 1 | 0 | 27 | 140 |
| Reading | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 10 | 30 |
| **EAST NORTH CENTRAL** | | | | | | | | | | | |
| Ohio: | | | | | | | | | | | |
| Cincinnati | 7 | 7 | 0 | 0 | 0 | 6 | 3 | 3 | 0 | 3 | 104 |
| Cleveland | 11 | 13 | 0 | 0 | 0 | 13 | 5 | 3 | 0 | 36 | 137 |
| Columbus | 3 | 5 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 53 |
| Toledo | 4 | 13 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 5 | 54 |
| Indiana: | | | | | | | | | | | |
| Fort Wayne | 1 | ---- | 0 | ---- | ---- | ---- | 1 | ---- | ---- | ---- | ---- |
| Indianapolis | 3 | 5 | 0 | 0 | 0 | 3 | 1 | 2 | 1 | 2 | ---- |
| South Bend | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ---- |
| Terre Haute | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| Illinois: | | | | | | | | | | | |
| Chicago | 32 | 55 | 1 | 0 | 0 | 35 | 6 | 3 | 0 | 62 | 521 |
| Springfield | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 14 |
| Michigan: | | | | | | | | | | | |
| Detroit | 25 | 26 | 0 | 0 | 0 | 18 | 4 | 3 | 1 | 112 | 181 |
| Flint | 5 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 5 | 17 |
| Grand Rapids | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 18 |
| Wisconsin: | | | | | | | | | | | |
| Kenosha | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 4 |
| Milwaukee | 7 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 32 | 85 |
| Racine | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 9 |
| Superior | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 |
| **WEST NORTH CENTRAL** | | | | | | | | | | | |
| Minnesota: | | | | | | | | | | | |
| Duluth | 4 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 25 |
| Minneapolis | 11 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 64 |
| St. Paul | 7 | 5 | 0 | 0 | 0 | 4 | 1 | 1 | 0 | 28 | 50 |
| Iowa: | | | | | | | | | | | |
| Des Moines | 2 | 3 | 0 | 0 | ---- | ---- | 0 | 0 | ---- | 3 | 22 |
| Sioux City | 0 | 0 | 0 | 0 | ---- | ---- | 0 | 0 | ---- | 0 | ---- |
| Waterloo | 0 | 0 | 0 | 0 | ---- | ---- | 0 | 0 | ---- | 0 | ---- |

*City reports for week ended September 17, 1932*—Continued

| Division, State, and city | Scarlet fever | | Smallpox | | | Tuberculosis, deaths reported | Typhoid fever | | | Whooping cough, cases reported | Deaths all causes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases, estimated expectancy | Cases reported | Cases, estimated expectancy | Cases reported | Deaths reported | | Cases, estimated expectancy | Cases reported | Deaths reported | | |
| **WEST NORTH CENTRAL—continued** | | | | | | | | | | | |
| Missouri: | | | | | | | | | | | |
| Kansas City | 3 | 8 | 0 | 0 | 0 | 6 | 2 | 1 | 1 | 3 | 97 |
| St. Joseph | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 19 |
| St. Louis | 11 | 7 | 0 | 0 | 0 | 5 | 4 | 5 | 0 | 5 | 166 |
| North Dakota: | | | | | | | | | | | |
| Fargo | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 |
| Grand Forks | 2 | 0 | 0 | 0 | ---- | ---- | 0 | 0 | ---- | 0 | ---- |
| South Dakota: | | | | | | | | | | | |
| Aberdeen | 0 | 2 | 0 | 0 | ---- | ---- | 0 | 0 | ---- | 1 | ---- |
| Nebraska: | | | | | | | | | | | |
| Omaha | 2 | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 45 |
| Kansas: | | | | | | | | | | | |
| Topeka | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 19 |
| Wichita | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 24 |
| **SOUTH ATLANTIC** | | | | | | | | | | | |
| Delaware: | | | | | | | | | | | |
| Wilmington | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 21 |
| Maryland: | | | | | | | | | | | |
| Baltimore | 5 | 4 | 0 | 0 | 0 | 18 | 8 | 2 | 0 | 24 | 185 |
| Cumerland | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| Frederick | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| District of Col.: | | | | | | | | | | | |
| Washington | 6 | 3 | 0 | 0 | 0 | 9 | 3 | 1 | 0 | 9 | 133 |
| Virginia: | | | | | | | | | | | |
| Lynchburg | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 11 | 14 |
| Norfolk | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 12 | 25 |
| Richmond | 4 | 10 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 40 |
| Roanoke | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| West Virginia: | | | | | | | | | | | |
| Charleston | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 6 |
| Huntington | ---- | 4 | ---- | 0 | 0 | 0 | ---- | 0 | 0 | 0 | ---- |
| Wheeling | 1 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 11 |
| North Carolina: | | | | | | | | | | | |
| Raleigh | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 9 |
| Wilmington | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 11 |
| Winston-Salem | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 12 |
| South Carolina: | | | | | | | | | | | |
| Charleston | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 17 |
| Columbia | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 21 |
| Greenville | ---- | 0 | ---- | ---- | 0 | 0 | 1 | 0 | 0 | 3 | ---- |
| Georgia: | | | | | | | | | | | |
| Atlanta | 4 | 2 | 0 | 0 | 0 | 3 | 3 | 6 | 3 | 3 | 51 |
| Brunswick | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| Savannah | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 41 |
| Florida: | | | | | | | | | | | |
| Miami | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 16 |
| Tampa | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 17 |
| **EAST SOUTH CENTRAL** | | | | | | | | | | | |
| Kentucky: | | | | | | | | | | | |
| Covington | 0 | ---- | 0 | ---- | ---- | ---- | 0 | ---- | ---- | ---- | ---- |
| Lexington | ---- | 7 | ---- | 0 | 0 | 1 | ---- | 1 | 0 | 0 | 1 |
| Louisville | ---- | 3 | ---- | 0 | 0 | 3 | ---- | 4 | 0 | 0 | 63 |
| Tennessee: | | | | | | | | | | | |
| Memphis | 3 | 4 | 0 | 0 | 0 | 3 | 5 | 9 | 2 | 1 | 65 |
| Nashville | 1 | 0 | 0 | 0 | 0 | 4 | 5 | 0 | 0 | 0 | ---- |
| Alabama: | | | | | | | | | | | |
| Birmingham | 4 | 3 | 0 | 0 | 0 | 2 | 4 | 1 | 0 | 4 | 58 |
| Mobile | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 13 |
| Montgomery | 0 | 0 | 0 | 0 | ---- | ---- | 1 | 0 | ---- | 0 | ---- |
| **WEST SOUTH CENTRAL** | | | | | | | | | | | |
| Arkansas: | | | | | | | | | | | |
| Fort Smith | 0 | 0 | 0 | 0 | ---- | ---- | 0 | 0 | ---- | 0 | ---- |
| Little Rock | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Louisiana: | | | | | | | | | | | |
| New Orleans | 2 | 9 | 0 | 0 | 0 | 8 | 4 | 0 | 0 | 0 | 132 |
| Shreveport | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 31 |

*City reports for week ended September 17, 1932*—Continued

| Division, State, and city | Scarlet fever | | Smallpox | | | Tuberculosis, deaths reported | Typhoid fever | | | Whooping cough, cases reported | Deaths all causes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases, estimated expectancy | Cases reported | Cases, estimated expectancy | Cases reported | Deaths reported | | Cases, estimated expectancy | Cases reported | Deaths reported | | |
| WEST SOUTH CENTRAL—continued | | | | | | | | | | | |
| Oklahoma: | | | | | | | | | | | |
| Oklahoma City | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 37 |
| Tulsa | 2 | 0 | 0 | 0 | ---- | ---- | 1 | 1 | ---- | 0 | ---- |
| Texas: | | | | | | | | | | | |
| Dallas | 3 | 4 | 1 | 0 | 0 | 3 | 2 | 3 | 1 | 0 | 55 |
| Fort Worth | 2 | 3 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 30 |
| Galveston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| Houston | 1 | 0 | 0 | 0 | 0 | 5 | 1 | 1 | 0 | 0 | 64 |
| San Antonio | 1 | 1 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 60 |
| MOUNTAIN | | | | | | | | | | | |
| Montana: | | | | | | | | | | | |
| Billings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 |
| Great Falls | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 |
| Helena | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Missoula | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 9 |
| Idaho: | | | | | | | | | | | |
| Boise | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 5 |
| Colorado: | | | | | | | | | | | |
| Denver | 4 | 8 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 7 | 58 |
| Pueblo | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 7 | 13 |
| New Mexico: | | | | | | | | | | | |
| Albuquerque | 0 | 2 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 11 |
| Arizona: | | | | | | | | | | | |
| Phoenix | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ---- |
| Utah: | | | | | | | | | | | |
| Salt Lake City | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 6 | ---- |
| Nevada: | | | | | | | | | | | |
| Reno | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| PACIFIC | | | | | | | | | | | |
| Washington: | | | | | | | | | | | |
| Seattle | 6 | 7 | 1 | 0 | ---- | ---- | 1 | 1 | ---- | 4 | ---- |
| Spokane | 2 | 0 | 1 | 0 | ---- | ---- | 0 | 0 | ---- | 3 | ---- |
| Tacoma | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 27 |
| Oregon: | | | | | | | | | | | |
| Portland | 3 | 2 | 2 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 66 |
| Salem | 0 | 0 | 0 | 0 | 0 | 0 | ---- | 0 | 0 | 0 | ---- |
| California: | | | | | | | | | | | |
| Los Angeles | 9 | 21 | 0 | 1 | 0 | 21 | 3 | 0 | 0 | 93 | 256 |
| Sacramento | 1 | 4 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 28 |
| San Francisco | 5 | 3 | 0 | 0 | 0 | 5 | 1 | 1 | 0 | 17 | 127 |

| Division, State, and city | Meningococcus meningitis | | Lethargic encephalitis | | Pellagra | | Poliomyelitis (infantile paralysis) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases, estimated expectancy | Cases | Deaths |
| NEW ENGLAND | | | | | | | | | |
| Massachusetts: | | | | | | | | | |
| Boston | 2 | 1 | 0 | 0 | 0 | 0 | 5 | 1 | 0 |
| Rhode Island: | | | | | | | | | |
| Providence | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| MIDDLE ATLANTIC | | | | | | | | | |
| New York: | | | | | | | | | |
| New York | 1 | 1 | 2 | 0 | 0 | 0 | 18 | 12 | 4 |
| New Jersey: | | | | | | | | | |
| Camden | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| Newark | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Trenton | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |

*City reports for week ended September 17, 1932*—Continued

| Division, State, and city | Meningococcus meningitis | | Lethargic encephalitis | | Pellagra | | Poliomyelitis (infantile paralysis) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases, estimated expectancy | Cases | Deaths |
| **MIDDLE ATLANTIC—continued** | | | | | | | | | |
| Pennsylvania: | | | | | | | | | |
| Philadelphia | 0 | 1 | 0 | 0 | 1 | 1 | 2 | 112 | 8 |
| Pittsburgh | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Reading | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| **EAST NORTH CENTRAL** | | | | | | | | | |
| Indiana: | | | | | | | | | |
| Indianapolis | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Illinois: | | | | | | | | | |
| Chicago | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 0 |
| Michigan: | | | | | | | | | |
| Detroit | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 1 | 1 |
| Flint | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Wisconsin: | | | | | | | | | |
| Milwaukee | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 |
| **WEST NORTH CENTRAL** | | | | | | | | | |
| Minnesota: | | | | | | | | | |
| Duluth | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| St. Paul | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| Iowa: | | | | | | | | | |
| Des Moines | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| Missouri: | | | | | | | | | |
| St. Louis | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| Nebraska: | | | | | | | | | |
| Omaha | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| **SOUTH ATLANTIC** | | | | | | | | | |
| Maryland: | | | | | | | | | |
| Baltimore | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 4 | 1 |
| Virginia: | | | | | | | | | |
| Lynchburg | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| South Carolina: | | | | | | | | | |
| Charleston [1] | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 |
| Columbia | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Georgia: [1] | | | | | | | | | |
| Savannah | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Florida: | | | | | | | | | |
| Miami | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| **EAST SOUTH CENTRAL** | | | | | | | | | |
| Tennessee: | | | | | | | | | |
| Nashville | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Alabama: | | | | | | | | | |
| Birmingham | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **WEST SOUTH CENTRAL** | | | | | | | | | |
| Louisiana: | | | | | | | | | |
| New Orleans [1] | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Texas: | | | | | | | | | |
| Fort Worth | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| San Antonio | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| **MOUNTAIN** | | | | | | | | | |
| Utah: | | | | | | | | | |
| Salt Lake City | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| **PACIFIC** | | | | | | | | | |
| Washington: | | | | | | | | | |
| Seattle | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 |
| Tacoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| California: | | | | | | | | | |
| Los Angeles | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| San Francisco | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

[1] Typhus fever, 7 cases: 3 cases at Charleston, S. C.; 3 cases at Atlanta, Ga.; and 1 case at New Orleans, La.

# FOREIGN AND INSULAR

## CANADA

*Provinces—Communicable diseases—Three weeks ended September 10, 1932.*—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the three weeks ended September 10, 1932, as follows:

| Disease | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Total |
|---|---|---|---|---|---|---|---|---|---|
| Cerebrospinal meningitis | | | | 1 | 2 | | | 2 | 5 |
| Chicken pox | | | 26 | 124 | 7 | 17 | 3 | 22 | 199 |
| Diphtheria | 3 | 3 | 55 | 56 | 26 | 5 | 1 | 1 | 150 |
| Erysipelas | | | 8 | 7 | 9 | 3 | | 1 | 28 |
| Influenza | | | | | 1 | | | 5 | 6 |
| Lethargic encephalitis | | | | 1 | | | | | 1 |
| Measles | 12 | 41 | 55 | 112 | 4 | 6 | 48 | 20 | 298 |
| Mumps | 5 | | | 103 | 4 | | | | 112 |
| Paratyphoid fever | 1 | | | 11 | | | | | 12 |
| Pneumonia | | | | 3 | | | | 2 | 5 |
| Poliomyelitis | 1 | 2 | 148 | 27 | | | 7 | 2 | 187 |
| Scarlet fever | 6 | 4 | 75 | 46 | 11 | 3 | 7 | 19 | 171 |
| Smallpox | | | | 3 | | 1 | | | 4 |
| Trachoma | | | | | | | | 1 | 1 |
| Tuberculosis | 3 | 8 | 199 | 95 | 88 | 67 | 2 | 41 | 503 |
| Typhoid fever | 1 | 8 | 80 | 62 | 14 | 10 | 5 | 8 | 188 |
| Undulant fever | | | | 7 | | | | | 7 |
| Whooping cough | 9 | | 190 | 328 | 60 | 59 | | 17 | 663 |

## JAMAICA

*Communicable diseases—Four weeks ended September 10, 1932.*—During the four weeks ended September 10, 1932, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island of Jamaica, outside of Kingston, as follows:

| Disease | Kingston | Other localities | Disease | Kingston | Other localities |
|---|---|---|---|---|---|
| Chicken pox | 5 | 5 | Paratyphoid fever | | 1 |
| Diphtheria | 1 | | Puerperal fever | | 1 |
| Dysentery | 1 | 4 | Tuberculosis | 25 | 76 |
| Leprosy | 1 | | Typhoid fever | 2 | 74 |

## LATVIA

*Communicable diseases—July, 1932.*—During the month of July, 1932, cases of certain communicable diseases were reported in Latvia as follows:

| Disease | Cases | Disease | Cases |
|---|---|---|---|
| Cerebrospinal meningitis | 3 | Paratyphoid fever | 17 |
| Diphtheria | 38 | Poliomyelitis | 1 |
| Erysipelas | 23 | Puerperal fever | 13 |
| Influenza | 59 | Scarlet fever | 39 |
| Leprosy | 2 | Tetanus | 4 |
| Lethargic encephalitis | 1 | Trachoma | 48 |
| Measles | 11 | Typhoid fever | 67 |
| Mumps | 63 | Whooping cough | 81 |

## PUERTO RICO

*Communicable diseases—Four weeks ended September 10, 1932.*—During the four weeks ended September 10, 1932, cases of certain communicable diseases were reported in Puerto Rico as follows:

| Disease | Cases | Disease | Cases |
|---|---|---|---|
| Bronchitis | 23 | Mumps | 15 |
| Broncho-pneumonia | 16 | Ophthalmia neonatorum | 3 |
| Chicken pox | 19 | Pellagra | 1 |
| Diphtheria | 43 | Pneumonia | 10 |
| Dysentery | 10 | Puerperal fever | 4 |
| Erysipelas | 5 | Syphilis | 218 |
| Filariasis | 8 | Tetanus | 2 |
| Framboesia, tropical | 1 | Tetanus, infantile | 5 |
| Influenza | 25, 103 | Trachoma | 3 |
| Leprosy | 1 | Tuberculosis | 451 |
| Malaria | 3, 238 | Typhoid fever | 7 |
| Measles | 133 | Whooping cough | 93 |

## YUGOSLAVIA

*Communicable diseases—August, 1932.*—During the month of August, 1932, certain communicable diseases were reported in Yugoslavia as follows:

| Disease | Cases | Deaths | Disease | Cases | Deaths |
|---|---|---|---|---|---|
| Anthrax | 139 | 20 | Poliomyelitis | 18 | ------- |
| Cerebrospinal meningitis | 8 | 3 | Scarlet fever | 289 | 25 |
| Diphtheria | 524 | 69 | Sepsis | 7 | 4 |
| Dysentery | 469 | 30 | Tetanus | 38 | 20 |
| Erysipelas | 163 | 12 | Typhoid fever | 359 | 26 |
| Measles | 71 | 7 | Typhus fever | 1 | ------- |
| Paratyphoid fever | 28 | ------- | | | |

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

(NOTE.—A table giving current information of the world prevalence of the quarantinable diseases appeared in the Public Health Reports for September 30, 1932, pp. 1992-2005. A similar cumulative table will appear in the Public Health Reports to be issued October 28, 1932, and thereafter, at least for the time being, in the issue published on the last Friday of each month.)

### Cholera

*China.*—Cholera was reported in China as follows: Amoy, week ended September 10, 1932, 41 cases, 15 deaths; Canton, week ended September 17, 1932, 1 case, 1 death; Hankow, week ended September 3, 1932, 56 cases, 6 deaths; Hong Kong, week ended September 17, 4 cases, 3 deaths; Macao, week ended September 10, 1932, 1 case, 1 death; Nanking, week ended September 10, 1932, 48 cases, 7 deaths; Shanghai, week ended September 10, 1932, 110 cases, 10 deaths.

Chinese Eastern Railway statistics compiled to August 18, 1932, show cholera cases and deaths as follows: Changchun, 90 cases, 54 deaths; Harbin, 376 cases, 115 deaths; Mankou, 99 cases, 97 deaths; Gorlos, 56 cases, 34 deaths; Tsitsikar, 160 cases, 100 deaths.

*Philippine Islands.*—During the week ended September 24, 1932, cholera was reported in the Philippine Islands as follows: Iloilo Province, 13 cases, 8 deaths; Leyte Province, 4 cases, 2 deaths; Samar Province, 7 cases, 9 deaths.

### Plague

*Hawaii Territory.*—A fatal case of plague was reported September 16, 1932, at Makawao, island of Maui, Territory of Hawaii.

### Yellow Fever

*Brazil.*—During the week ended September 24, 1932, a fatal case of yellow fever was reported in the State of Ceara, Brazil, in a locality distant from the coast and not connected by rail.