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MODERN MEDICINE AND THE PUBLIC HEALTH.[1]

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It is a noteworthy coincidence that the centennial of the Medical College of this University is also the semicentennial of that reformation of medical education in the United States, which, in its own field, is worthy to be compared with the sixteenth century reformation in theology. One hundred years ago was born in Cincinnati that medical college the centennial of which we now celebrate. Fifty years ago began in Boston—the birthplace of American revolutions—a revolt against the then prevailing laxity of medical education, a nineteenth century reformation which laid the foundations of modern medical education and modern medicine in the United States. The Martin Luther of that medical reformation was Charles William Eliot, then the new and youthful president of Harvard University.

Before 1870 even our best medical schools welcomed, without any educational entrance requirements whatsoever, all students who could pay the prescribed fees. Instruction consisted almost entirely of lectures, the only laboratory open to students being the dissecting room. The lectures were given by practitioners usually too busy to prepare themselves properly, before students often too indolent or too ignorant to profit by them. The school terms, of which only two were required for the degree, were very short—generally about four months each. Hence it was sometimes possible to get the medical degree within a single calendar year. As late as 1887 it was reported as an important fact in American medical education that the terms of our medical colleges had recently been increased from an average of 23.5 weeks to one of 24.9 (i. e., by one-half week), or to nearly six months!

Entrance examinations were held for the first time by the Medical School of Harvard University in 1877, and then only 13 candidates presented themselves, of whom six passed and seven failed. As for the characteristics and bearing of medical students in those days.

[1] Address delivered at the centennial celebration of the Medical College of the University of Cincinnati, Nov. 6, 1920.

President Eliot said in his annual report for 1879–80: "It is notorious that medical students have been, as a rule, a rougher class of young men than other professional students of similar age." And this was a conservative statement.

At the turning of this low tide I was myself a student in a reputable medical school, and I well remember how much interest was felt in the Harvard experiment, especially by those students who knew that they could not possibly have passed any entrance examinations, however easy, and how much hope for the future was kindled by this forward step among those of us who already held college degrees. Very gradually that hope was fulfilled. Medical courses were extended to three years and then to four, entrance examinations were set up to keep out the poorest of the raw material, laboratories were established, and to-day we are beginning to have whole-time professors ready to exchange the possibly great rewards of private practice for the secure satisfactions of teaching, of study, of research, and of the intellectual life.

When I was in a medical school in 1877 the students went all day from one lecture to another, listening to a stream of words upon every subject in the curriculum, poured out upon everybody, even beginners, in the first year, and repeated, practically unchanged, in the second. No examination was held until the end of the two years, and then the examinations were brief and very easy. Chemistry was expounded by lectures and lecture demonstrations, but without any laboratory practice, and was of the most elementary sort—far below that now obtained by freshmen in colleges and technical schools—and physiology was presented, without laboratory work of any kind, through recitations from a textbook by a young physician, uninformed as to the subject, who had merely taken a similar course under another physician equally ignorant of physiological science. I shall never forget my regret that I had been born too late; for I gathered from the tone of the textbook and the teacher that everything in physiology was already known; that there was therefore nothing under debate, nothing to be settled, nothing new to be discovered. Pathology, what there was of it, was mostly a poor kind of pathological histology demonstrated by miscellaneous and mostly inferior microscopes. It was taught by an old gentleman lately returned from the Orient, where he had long served as a medical missionary. Materia medica and therapeutics were lectured about by a busy practitioner, with occasional illustrations of plants supposed to possess medicinal properties. Obstetrics was likewise taught entirely by lectures, without demonstrations or practice of any kind whatsoever. In this subject, as in most others, a number of books were named for reference, but in this case one prominent treatise was not mentioned. Word was passed down from the upper

class that this book, about which the professor had said nothing, was the one from which he drew his lecture material—with the result that the class promptly purchased the one book not recommended and abjured all the others. Theory and practice were given by a physician from a neighboring city who had there a large private practice and was also medical adviser to an important insurance company. This man was, nevertheless, an excellent teacher, and the class really learned a good deal from him and from the books which he advised us to read. The brightest spot in the school was the instruction in surgery, which was taught by a really eminent surgeon, who, however, was overwhelmed with private practice in a large city some 50 miles distant. By him we were taught chiefly through clinics, and I well remember his skeptical but still open-minded attitude as he referred to the antiseptic method (which for him was the antiseptic spray) of Joseph Lister, a method then barely 10 years old, and making its way only very slowly in a profession noted for its conservatism.

Something like this, in the seventies, was characteristic of all the medical schools of the United States; but a new day was about to dawn. Before very long entrance examinations were established in most of the better medical schools. The two years course became three years and, later, four years; laboratory procedures were introduced, not only in chemistry, but also in physiology, in obstetrics, in surgery and in medicine; and all along the line improvements came thick and fast, so that it is now impossible to recognize in the medical school of to-day any resemblance to that earlier type. The requirements are now so thorough and severe that the degree of Doctor of Medicine, which 40 years ago was utterly unworthy to be compared with the degrees of Doctor of Philosophy and Doctor of Science, is to-day in our best schools as difficult to obtain as (and, with the single exception of the amount of research required, in every respect equal to) the degree of Doctor of Philosophy. Indeed, it is probably superior in difficulty of achievement to that degree as it is sometimes given.

I shall not undertake to describe the marvelous medical colleges of to-day. Housed as they sometimes are in veritable palaces, provided with splendid lecture rooms, libraries, and laboratories, and equipped with abundant appliances for instruction and research, they afford to those who, like myself, recall the medical schools of the previous generation, a delightful contrast. I need only suggest a variant of the famous epitaph of Sir Christopher Wren in St. Paul's Cathedral: "If you would see a modern medical school look about you." Together with these wonderful transformations has come to pass that development of medical science and medical service which we proudly call Modern Medicine. It was only 50 years ago that

Semmelweiss's discovery of the dangers of dirt, and Lister's method of counteracting infection in surgery, became serviceable. It is less than 50 years since Pasteur and Koch and their disciples established the surprising fact that the communicable diseases are due to microbic parasites, and revealed to an astonished world a wholly new pathology. It is only 30 years since the corner stones of immunology and serology were securely laid by Pasteur and Metchnikoff and von Behring and Kitasato; and to bring us to a realization of how wonderful are the developments of those arts and sciences to-day we need only summon to testify, diphtheria antitoxin, typhoid vaccination, the Wassermann test, and salvarsan. I spare you praise of modern surgery with its glorious triumphs over such plagues as appendicitis and gastric ulcer and incipient cancer. Before achievements such as these, the whole world stands speechless in awe and admiration.

Happily, modern medical education has for the most part advanced hand in hand with modern medicine. Our best medical schools are to-day temples of medical science and training schools of medical engineering. Their courses are long and arduous, their standards are high, their instruction is sound, thorough, and conscientious. They prepare their pupils admirably for institutional service and for private practice. Their graduates are well qualified as ministers of that original and fundamental function of the physician, viz, the practice of the healing art.

There is, however, one vast and important field of modern medicine thus far sadly neglected by all medical schools, even by the very best, and that is the field of the public health. We have outgrown the ancient point of view which held that "they that are whole need not a physician but they that are sick," for we believe that the maintenance of the public health (i. e., the health of the people), is no less important, and often easier, than is the cure of their diseases. It was probably no mere coincidence which in 1869 led to the establishment of the first of our State boards of health—viz, that of Massachusetts—and in 1872, of the city board of health of Boston, almost contemporaneously with the first fruits of the labors of Pasteur and Lister and Semmelweiss, and with that reformation of medical education in America to which I have already alluded. To-day we have in every one of our 48 States a State department of public health, for the proper administration of which at least 48 experts in public health and sanitary science are needed, with two or three times as many more for field or laboratory work. The United States Public Health Service also requires scores of qualified public health officers, and finds great difficulty in obtaining them. Still others are needed by the Army and the Navy, while hundreds of American counties, cities, towns, and rural regions, either already have or should have whole-time, trained, health officers. Private health

agencies, also, such as the International Health Board of the Rockefeller Foundation, numerous antituberculosis societies, the Red Cross, and many others, are at present handicapped in their beneficent undertakings by finding it almost impossible to fill the places which they have with competent, trained personnel. The field of industrial medicine and industrial hygiene is also calling loudly for trained workers; while school physicians who are really expert, mental hygienists, social hygienists, and dental hygienists are likewise greatly needed. And yet, although these facts are patent, we do not find our medical schools, even those of the most modern type, giving much, if any, attention to the Macedonian cry of the hour for training in public health.

This is the more strange, since the beginnings of preventive medicine in the eighteenth century, with inoculation and vaccination for smallpox, and the first steps in experimental medicine, which were taken in establishing the validity of these procedures, have always rightly been regarded as one of the most brilliant benefits conferred on suffering humanity and among the brightest stars in the medical firmament. It is true that from Jenner in 1796 to Pasteur in 1877 the intervening 80 years saw but little progress in preventive medicine. But meantime preventive sanitation arose, with the factory acts of 1802, the installation of public water supplies, the introduction of the water-carriage system of sewerage, with water closets, bathtubs, and plumbing; with garbage, sewage, and refuse collection and disposal; with heating, lighting, ventilation, and disinfection; with convenience stations, public-drinking fountains, and abolition of the common towel and common drinking cup; with the registration of vital statistics and the beginnings of public-health nursing—all of which should have interested the physician hardly less than the sanitary engineer. We can understand that all this complex preventive sanitation may have seemed somewhat outside the field of the physician; but it must certainly be accounted strange that the renascence of preventive medicine since it once began (about 40 years ago), after its 70 years' sleep, and especially as it has been rapidly growing more important ever since, has not been able to win for itself a high place in modern medical training. The fact is that hygiene and the public health, and even preventive medicine, have thus far had scanty recognition in our medical schools. Without pausing to deplore this notorious fact I pass on to point out what I believe to be the remedy—a remedy, moreover, which the medical college of a great municipal university like that of Cincinnati would seem peculiarly well fitted to initiate.

The medical curriculum of to-day is for the most part a strong single track, a narrow one-way road, leading straight to one great terminal—the ancient, well-known, and famous metropolis of the

medical degree. To have conceived and constructed and safeguarded and enriched this long and highly graded road, fenced in everywhere against interlopers, and discouraging to set out upon for all excepting those of fitness and attainment, is the great achievement of the generation now passing off the stage. But since 1870 another great, though more modern, city has grown up, apart, but not far from, the original terminal, and a strong branch road is now badly needed, beginning halfway up the line, which shall carry some of the many travelers to this new and thriving suburb, of which the name is "Public Health." Those arriving here should receive the degree of Doctor of Public Health instead of Doctor of Medicine, and should become practitioners, not of medicine, but of the science and arts of the public health.

Instead of the present rigid medical curriculum which resembles the capital letter I, we ought to-day to have a new curriculum of equal height and breadth, but shaped like the capital letter Y, of which the base should still be substantially the first two years of the present curriculum—anatomy, physiology, bacteriology, pathology, etc.—but with its upper parts diverging, the one arm or branch leading as now in the last two years to the degree of Doctor of Medicine (M. D.) and the other in the last two years to the degree of Doctor of Public Health (D. P. H.). That medical school which first begins this reformation will seize a golden opportunity. It is right to provide generously for curative medicine—for surgery, for obstetrics, for gynecology, for otology, for opthalmology, etc. But the medical school which fails to-day to provide also liberal instruction in preventive medicine, in vital statistics, in sanitary science, in public health laboratory methods, in epidemiology; in preventive sanitation, such as the sanitation of water supplies and other branches of municipal sanitation; in preventive hygiene, such as mental, social, personal, and dental hygiene; and in public health education and public health administration—that medical school is sending out its graduates unprepared for some of the most serious problems they will have to face in the immediate future. The census of 1920 shows that our people lately rural, are rapidly becoming urban, and urbanization spells sanitation.

Obviously, all these subjects can not be injected into a curriculum already overcrowded. The only way out is to recognize the situation, and to meet it squarely by erecting a separate superstructure for public health training upon the same foundation which already underlies medical training, replacing surgery, obstetrics, gynecology, materia medica, therapeutics, pharmacology, and other purely medical subjects by subjects in public health, such as those just mentioned. The medical man without further training has been tried as a modern health officer, and, broadly speaking, found wanting; and it is for this reason that special schools of hygiene and public health are springing up here

and there. These, however, are, and long will be, wholly inadequate to supply the needs of the time, and our only hope at present for any adequate relief is that the medical schools of the land shall seize the opportunity that is theirs, to divert into the public health channels, with proper preparation, some of the talent now going into medicine. If what we hear of the coming "socialization" of medicine—by which we mean that tendency now everywhere discoverable to substitute physicians employed and paid by the State for physicians dependent on private practice—be true, such a diversion can not come too soon.

Since this paper was written it has come to my attention that the Harvard Medical School has this summer established the degree of Doctor of Medical Sciences (D. M. S.) for the benefit of those who, having satisfactorily completed the first two years of the medical school, desire to devote the last two years exclusively to one of the medical sciences. This is obviously a long step in the right direction, since a student desiring to enter the field of the public health may now do so, with special preparation and without waste of time. The degree of Doctor of Medical Sciences will not, however, be either sought for or valued as the degree of Doctor of Public Health would be, by those engaging in public health practice. For them it will be much as it would be for those about to practice medicine to hold the degree of D. M. S. instead of M. D.

It is said that the medical colleges of the United States in the eighteenth century (1762) were on a very high level; that they then began to lower their standards and that—as we have seen—in the nineteenth century the requirements for the degree sank very low. However, all this may have been, there is no doubt that to-day, in the twentieth century, medical colleges like this one whose centennial we are celebrating stand among the highest and the best of the educational institutions, not of our country only but of the world. The degree of Doctor of Medicine has been rescued from its low estate and is now the peer of any doctorate.

I bring to you, Mr. President, and to you, gentlemen of the board of directors, to you, members of the faculty, to the student body, and especially to the citizens of Cincinnati, of which this college is an ornament and a distinction, the congratulations and felicitations of other educational institutions of our land. If in the future you shall make it possible to add to the excellent medical education which you now give, education in the public health, i. e., in the health of the people, in preventive medicine, in preventive sanitation, and in preventive hygiene, opportunity for which is nowhere so great as in a municipal university, because of the close association which such a university enjoys with departments of public health and public water, public sewers, and public schools, public buildings, public streets, public baths, and public gymnasia—all

of which stand available for educational cooperation and research—you will not only deserve and win the applause of a grateful community, but you will blaze the way for a reform imperatively needed in other medical colleges. Modern medicine must provide a training for the practice of the public health no less rigorous than that for the practice of medicine; for the public health is the health of the people, and, as the Latin phrase puts it, *Salus populi suprema lex.*

A PRELIMINARY STUDY OF THE PHYSIOLOGICAL EFFECTS OF HIGH TEMPERATURES AND HIGH HUMIDITIES IN METAL MINES.

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Introduction.

One of the most important problems encountered in present-day metal-mining practice is that of providing efficient ventilation, especially in those mines which have high air temperatures and high relative humidities in extensive workings at considerable depths, or in workings where mine fires are found or where there is much oxidation of timber or of ore. It has long been recognized that mine workers subjected to hot, humid, stagnant air and to certain harmful dusts in many of our metal mines contract miners' consumption and possibly other diseases; and although considerable study has been made of the effects of dusts, temperatures, and humidities in mines of England,[1] South Africa, and of some European countries,[2] very little of this kind of study has been done in the United States, especially as regards the effect of high temperatures and high relative humidity in our mines.

The following study was made in two comparatively deep copper mines, both with fairly high temperatures and humidities, one in which practically no attempt at ventilation was made and one with a ventilation system of a much more efficient nature than is generally found in metal mines. In both mines the data were taken at points over 2,000 feet below the surface and with surrounding rock temperatures generally in excess of 90° F.

In general, the following data were taken: Surface air temperatures and relative humidities and body temperature, blood-pressure readings, pulse, time of day. Data taken underground at each place visited included temperature and humidity readings of air in working places, occasionally rock and water temperatures, temperature of compressed-air blowers, air movement or velocity, kind of work being performed, exact time of day, number of workers, and bodily tem-

[1] Haldane Journal of Hygiene, Vol. V, pp. 494, 1905.
[2] Oliver: Diseases of Occupation.

perature, blood pressure, pulse rate, and other data, of those persons on whom or by whom the experimental work was being done. The following instruments were used: Sling psychrometer for air, rock, and water temperatures, and for relative humidity; Davis anemometer for air velocities; Tycos sphygmomanometer, aneroid type (checked at intervals with a mercury instrument), for obtaining blood pressures; and 2-minute Tycos clinical thermometers for taking body temperature. All readings on persons were taken with the subjects standing.

Investigations in Mine No. 1.

On three consecutive days the investigators entered a mine (designated No. 1) for purpose of taking data as to effect of high temperatures and high relative humidity in stagnant air, there being no attempt at ventilation of the mine other than from compressed-air blowers which, however, furnished sufficient air to prevent excessive vitiation. On the first day, data were taken on five subjects, A, B, C, D, and E; and on the two succeeding days, on A, B, and C. No work was done other than to walk slowly a few thousand feet underground and to take the necessary readings as to temperature, humidity, velocity, and blood pressure, and in only one instance did the investigators leave the level to climb a few feet into a stope. While underground, A was dressed in heavy woolen underwear and trousers; B, C, D, and E were dressed in light cotton underwear, knee-length light trousers. A was about 40 years of age, weight 120 pounds; B about 36 years, weight 150 pounds; C about 32 years, weight 150; D about 28 years, weight 160; and E about 32 years, weight 160. D and E were accustomed to perform nearly all kinds of work underground in hot mines; whereas A, B, and C were not, although they were well accustomed to spending much time underground on investigative work.

Table I gives compiled data as to readings taken on the three days in Mine No. 1, and an inspection of that table shows that the investigators were in the hot region 120 minutes on the first day, 90 minutes on the second, and 115 minutes on the third (it had been the intent to remain underground at least four or five hours each day, but the effect of the hot, humid, stagnant air was so great that the investigators were physically unable to remain underground much longer than the length of time given). It is significant that although A, B, and C had been accustomed to go underground regularly prior to making this investigation, yet at the end of the three days, during which time a total of but 5 hours and 25 minutes were spent underground doing only such light work as walking on level ground and taking temperature, blood pressure, and other readings, A lost 6 pounds and B lost over 5 pounds in weight, and C, though he did not weigh, lost perceptibly in weight, and all were seriously fatigued each day after leaving the mine.

TABLE I.

Location.	Time in minutes after entering mine.	A.				B.				C.				D.				E.				Air conditions.				Compressed air blowers.			Rock temperature.	Water temperature.
		Systolic.	Diastolic.	Body temperature.	Pulse.	Systolic.	Diastolic.	Body temperature.	Pulse.	Systolic.	Diastolic.	Body temperature.	Pulse.	Systolic.	Diastolic.	Body temperature.	Pulse.	Systolic.	Diastolic.	Body temperature.	Pulse.	Wet bulb.	Dry bulb.	Relative humidity (per cent).	Velocity.	Wet bulb.	Dry bulb.	Relative humidity (per cent).		
FIRST DAY.																														
On surface	....	118	78	98.8	....	....	....	99.8	....	110	76	99.4	.....	108	76	99.6	....	116	70	99.6	....	52	58	66		....	....	....	....	....
Face of crosscut	20	116	78	.....	....	....	....	99.8	108	106	74	101.2	100	106	76	100.0	114	114	78	100.0	90	96	97½	94	None..	82	94	60	97½	97
Face of drift	80	112	68	.....	140	....	....	101.8	120	104	64	101.6	120	106	62	102.0	118	110	78	102.0	100	95	96	96	...do...	73	91	41½	....	....
2,500-foot station	110	104	62	.....	120	....	....	102.6	140	106	68	102.6	120	106	60	102.0	138	102	58	102.8	120	92½	93½	96	...do...	86	86	100	....	....
On surface 10 minutes before bath	130	96	58	.....	144	....	....	102.6	140	92	48	102.4	128	82	42	.....	....	80	40	102.2	106	58	69½	49	Slight.	....	....	....	....	....
SECOND DAY																														
On surface	....	106	78	99.3	98	96	72	99.3	90	98	72	99.4	72	....	....	.....	....	....	....	.....	....	55	61	68	Still...	....	....	....	....	....
2,400-foot station	10	106	82	.....	108	96	78	.....	90	98	76	.....	88	....	....	.....	....	....	....	.....	....	92	92½	98	None..	....	....	....	....	....
Intersection SW. and main ledge	60	112	88	100.8	138	92	70	100.2	124	94	76	100.4	112	....	....	.....	....	....	....	.....	....	94	94½	97	...do...	78	92	53	....	94½
On surface 10 minutes	100	96	68	101.3	112	88	72	100.6	96	90	68	101.6	[1] 108	....	....	.....	....	....	....	.....	....	57½	69½	48	Slight.	....	....	....	....	....
On surface 1 hour	160	96	78	99.1	92	96	78	99.6	88	94	72	100.5	[2] 76	....	....	.....	....	....	....	.....	....	57½	69½	48	...do...	....	....	....	....	....
On surface 2½ hours	190	112	86	98.3	108	98	76	98.8	96	110	82	98.9	[3] 82	....	....	.....	....	....	....	.....	....	57½	69½	48	...do...	....	....	....	....	....
THIRD DAY.																														
On surface	....	108	72	98.3	104	98	76	98.8	96	98	70	98.6	72	....	....	.....	....	....	....	.....	....	55	67	48	Still...	....	....	....	....	....
Face NW. drift	40	104	68	99.8	124	98	82	99.2	100	94	70	99.2	80	....	....	.....	....	....	....	.....	....	91	91½	98	None..	....	....	....	91	....
2,300-foot station	110	102	68	102.5	142	90	68	100.6	128	98	62	101.2	130	....	....	.....	....	....	....	.....	....	92½	92½	100	...do...	81	86	81	....	....
On surface 10 minutes	125	98	74	100.9	138	90	70	100.6	118	88	68	101.7	[4] 120	....	....	.....	....	....	....	.....	....	60½	79	32	Still...	....	....	....	....	....
On surface 20 minutes	145	88	68	100.9	128	98	74	100.2	98	92	66	100.5	[5] 104	....	....	.....	....	....	....	.....	....	60½	79	32	...do...	....	....	....	....	....
On surface 2 hours	245	112	78	98.3	108	112	84	99.2	96	112	78	99.1	[6] 98	....	....	.....	....	....	....	.....	....	60½	79	32	...do...	....	....	....	....	....

[1] No bath taken to-day. [2] Before eating. [3] After eating. [4] Before bath. [5] After bath.

During the three days in Mine No. 1 there was no period at which the investigators were in a temperature (either wet or dry bulb) less than 90° F. (and in many cases the dry bulb reading was above 95° F.), and at all times there was absolutely no perceptible movement of air except that which could be obtained immediately in the current of the compressed-air blowers. Even the compressed-air blowers (see also Table I) had dry-bulb temperatures above 85° F., and in many cases they were over 90° F., the temperatures being taken at the end or nozzle of the compressed-air hose. Although the compressed-air temperatures were nearly as high as those of the surrounding air, yet the high velocity and the comparatively low humidity of the direct current gave at least a temporary measure of relief, and this constituted the only available relief from the extremely depressing conditions.

Table I shows that blood pressure fell decidedly when the subjects were exposed to stagnant, humid air with temperatures over 90° F. and below 100° F., and that a decided fall in blood pressure was found immediately upon reaching cooler, purer air of the surface after having been exposed for about two hours to the above-described unfavorable conditions. For considerable time after reaching the surface the rise in blood pressure was slow, even when the subjects took a hot shower bath with a finishing dash of cold water; it was not until after eating, one to two hours later, that blood pressure rose, and then it jumped somewhat higher than before the subjects went underground. It is noted, too, that blood pressures taken on the surface before going underground on the first day were higher than similar readings taken under similar conditions on the second and third days, probably indicating at least a temporary depression of general vitality after having been underground.

Body temperature rose at the rate of approximately 1° F. per hour on exposure to stagnant air with wet and dry bulb temperatures between 90° and 97° F., even when no work was being done other than leisurely walking along level haulage roads. This increase of body temperature continued until 102.8° F. was reached in one case and approximately 102° F. in the other cases, or fever temperatures throughout. After having been underground for about two hours under conditions described above, temperature decrease took place in still surface air about 70° F. and 50 to 60 per cent relative humidity, at the rate of about 1° F. per hour, apparently being comparatively little influenced by a hot shower bath followed by a final dash of cold water.

Pulse increased rapidly upon entering and remaining in this hot humid air, and after having been in this atmosphere for about two hours doing little or no work as above described, it had reached as high as 130 and occasionally 140 or over. Upon returning to the

surface a comparatively rapid decrease of pulse rate was noticed; however it did not reach the same rate as that before going underground for several hours. In general, pulse rate was high in the hot, humid, stagnant air, and it seemed to be abnormally sensitive to even the slightest exercise. It was found to rise rapidly even in the case of subjects who had been accustomed to hard work under such conditions, as well as in the subjects of this experiment.

During the first day all five subjects stated that they felt dizzy within 20 minutes after entering the hot, humid, stagnant air, and within an hour all felt weak. B was very nervous after an hour's exposure, and later had alternate hot and cold sensations; C had a dull headache; and all subjects perspired very freely; all appeared unable to think quickly or accurately after less than one hour's exposure. On reaching the surface, all felt well except B, who was very weak for about 15 minutes; all complained of feeling somewhat weak the remainder of the day, and A, B, and C did not sleep very well that night, but D and E, more accustomed to hard physical work, slept well.

On the second and third days only A, B, and C went underground, and the symptoms experienced on these days were similar to those felt on the first day, but in a somewhat milder degree. However, after the three days' experimentation in which a total of less than five and one-half hours was spent underground, the exhausting effect of stagnant, humid air with temperatures between 90° and 97° F. was shown in the fact that A and B (C not weighing) each had lost over 5 pounds in weight, though no work was done of a more arduous nature than leisurely walking in unobstructed level drifts.

Table II contains some observations made on five miners who volunteered, all being healthy, robust men except V, who was pale and thin (he had worked 14 years in this mine). While underground these men dressed in shoes and trousers or overalls usually cut off just above the knees. Underwear or shirts were not worn. The first set of readings was taken before the men went underground, the second was taken underground at the shaft station just prior to hoisting the men after having worked their shift, and the third was taken 25 minutes after the men had reached the surface, and all except V had taken their shower bath. No temperature readings were taken.

It will be noted that except in case of Z, blood pressure had fallen perceptibly after 7½ hours underground in humid, stagnant air with temperatures between 90° and 95° F.

Blood pressure reacted practically to normal in the cases of W and Z after shower bath, these two men having worked in this mine 11 days and 4 months, respectively; and in case of X, who had worked 12 days, blood pressure had increased perceptibly after the

TABLE II.

Location.	Time between readings, in hours.	V.[1]			W.[2]			X.[3]			Y.[4]			Z.[5]			Air conditions.		
		Systolic.	Diastolic.	Pulse rate.	Systolic.	Diastolic.	Pulse rate.	Systolic.	Diastolic.	Pulse rate.	Systolic.	Diastolic.	Pulse rate.	Systolic.	Diastolic.	Pulse rate.	Wet bulb.	Dry bulb.	Relative humidity (per cent).
On surface		116	82	78	132	86	96	142	92	80	116	72	72	118	76	78	55	61	68
2,400-foot station	7½	92	66	124	122	92	104	92	68	118	104	70	120	116	78	108	92½	92½	100
On surface 25 minutes	8½	88	64	108	134	92	118	116	82	108	92	66	116	118	80	96	60½	79	32

[1] Readings as to V were taken previous to bathing; as to others, after bathing. V had worked 14 years on hot levels.
[2] W had worked 11 days on hot levels.
[3] X had worked 12 days on hot levels.
[4] First day that Y had worked in the mine in 6 months.
[5] Z had worked 4 months on hot levels.

bath. On the other hand, in the case of Y, who had worked his first day underground in 6 months, blood pressure had fallen perceptibly after the bath, apparently indicating that workers who were accustomed to the conditions had acquired a certain tolerance or at least were not as sensitive as were persons unaccustomed to the conditions. But in the case of V, who did not bathe after returning to the surface, there was a slight drop of blood pressure. He had worked in this mine 14 years, was pale and thin, but was active and apparently was not physically exhausted by 7½ hours underground to the same extent as were the other more robust men. His work is much less arduous than that of the other men, as he is a shift boss.

The pulse rate had risen perceptibly by the time the men had spent seven and one-half hours underground, and, except in case of W, fell quickly after the men reached the surface. W showed a pulse rate increase as well as increase of blood pressure after reaching the surface. However, after having been on the surface practically one-half hour after the end of the underground shift, the pulse rate remained perceptibly above normal in every case.

These men, with the exception of Z, stated that they were weak at the end of the shift, and Y said he was weak and dizzy several times during the shift. All said that they felt well, even if slightly weak, after they had taken the shower bath. Men in this mine work wear practically no clothing, and while underground they drink large quantities of water, which is brought there in kegs and kept cooled in ice. Miners who wear underclothing underground are frequently seen wringing the perspiration out of it. A surveyor in this mine stated that after two or three hours' work in the hot, humid, stagnant places in this mine in the forenoon, he and his assistants sleep the entire afternoon as well as the night, in order to be physically able to spend a like two or three hour shift the next day. Shift bosses who have worked some years in this mine state that they frequently feel dizzy and weak after taking even moderate exercise, such as climbing a ladder into a stope. These shift bosses are invariably pale and thin; they state that they have much less endurance than formerly, and that they "take things easy" and allow the men under them to do likewise. A cage tender who practically divides his working time between the surface and the hot, stagnant shaft stations of lower levels, stated that after eight months of such work he had lost 20 pounds. Three men quitting work after one shift appeared weak; two of them said they were dizzy, and one said he felt nauseated.

Notwithstanding the obviously unhealthful conditions in this mine, the miners present a generally robust and healthy appearance. This is probably due to three main reasons: First, knowing the conditions, the foreman employs only very strong, healthy looking men; second, the men are never hurried or rushed by the shift boss, and, in fact, are

told to "go easy" and "take five" frequently; third, men employed continuously in the hot, humid, stagnant air generally remain for only a few months. It was stated by the foreman that at least 50 per cent of the men employed worked one shift or less, but that if they can last a week they usually remain several months. Though the monthly labor turnover was over 100 per cent, plenty of men were available, as the mine is located close to the heart of a large mining community. The men are expected to work a seven instead of the customary eight hour shift, for which they receive 25 cents per day more than employees of neighboring mines with an eight-hour shift; and, as before stated, the workers are rarely if ever hurried by the bosses.

The efficiency of the workers is somewhat difficult to gauge; yet it is certainly much less than 50 per cent of that of similar workers in other mines. At working faces, while one machine man or mucker works, his companion rests in the full stream of a compressed-air blower, the men exchanging places at intervals of 20 to 30 minutes and *frequently both rest.* Moreover, the man working the short interval at the face must work at reduced pressure; for instance, two men at the face of a drift in this mine in still air, with 96° F. wet bulb and 94 per cent relative humidity, muck about 12 tons per shift; whereas in a drift in an adjoining mine, less than 1,000 feet away, in *moving air,* with 82° F. wet bulb and 82 per cent relative humidity, two men muck 30 tons or over per shift. The average of about 30 readings taken at all working faces of this mine gave wet bulb 93.3° F., dry bulb 94.4° F., and a relative humidity of 96 per cent, and at no place was there any perceptible movement of air except at points close to compressed-air blowers. However, while the resultant conditions were undeniably depressing, little or none of this effect was attributable to air impurity as little or no smoke was encountered, and analyses of air samples taken at working faces showed little or no vitiation, the large amount of compressed air from blowers apparently keeping the quality of the air good but not being of sufficient quantity to give the necessary velocity to cause cooling by evaporation.

Investigations in Mine No. 2.

A second series of readings was taken on two days in Mine No. 2, a deep mine with extensive workings. This mine, while more efficiently ventilated than most metal mines, has high rock temperatures, and practically any desired condition as to temperature, humidity, and air movement is obtainable. In this mine the workers are supplied with fresh city water at a temperature of about 65° F., and they say that they can drink large quantities of the water without ill effect. The men generally work in a suit of underwear, trousers, and shoes, and upon leaving the mine put on a woolen shirt and a heavy coat.

TABLE III.

Location.	Time, in minutes, after leaving surface.	A.				B.				C.				D.				Air conditions.		
		Systolic.	Diastolic.	Temperature.	Pulse rate.	Systolic.	Diastolic.	Temperature.	Pulse rate.	Systolic.	Diastolic.	Temperature.	Pulse rate.	Systolic.	Diastolic.	Temperature.	Pulse rate.	Wet bulb.	Dry bulb.	Relative humidity (per cent).
On surface	000	112	76	98.4	108	102	76	99.6	96	106	76	99.4	84	118	78	98.6	90	55	67	45
Face of X cut	10	108	72	99.7	120	106	80	100.0	96	102	74	100.0	88	114	82	100.0	96	94½	97½	89
Do	25	112	68	99.8	122	107	82	100.0	120	100	74	100.0	100	112	82	100.0	120	94½	97½	89
Do	45	108	72	101.5	134	108	84	100.6	132	100	74	100.9	108	102	68	100.2	128	94½	97½	89
Do	70	98	68	101.8	136	98	78	101.4	130	100	76	101.5	128	108	68	102.6	122	94½	97½	89
Canvas air pipe	95	106	82	100.9	120	.....	.....	101.2	.....	106	78	101.8	112	.....	.....	.....	.....	82	89½	72
On surface 10 minutes	165	100	72	100.5	130	101	72	100.6	120	102	74	101.0	98	106	84	100.0	92	58	80	23
On surface 2.3 hours	295	106	80	.....	.....	100	72	99.6	100	110	76	.....	76	.....	.....	.....	.....	.....	.....	.....

A, B, C, and D entered Mine No. 2 about two weeks after completion of the readings in Mine No. 1, and spent over an hour the first day at the face of an abandoned crosscut in practically stagnant air, wet bulb 94½° F., dry bulb 97½° F., and relative humidity 89 per cent. All were dressed essentially the same as they were in the investigation in Mine No. 1, and on this first day (see Table III), A, B, and C remained practically at rest for about 70 minutes. There was comparatively little change in blood pressure during the first 45 minutes in this atmosphere *at rest*, except that the blood pressure of D fell. At the 70-minute reading the blood pressures of A and B had fallen perceptibly, though there was little or no change as to the blood pressure of C; and D, who was the youngest and perhaps the most vigorous of the four, had slightly increased blood pressure as compared with the 45-minute reading, which was probably due to slight exercise taken just previous to the last reading.

On this day the body temperature of the four investigators at rest at the face of the crosscut had risen slightly during the first 10 minutes after they had entered the place, and had risen perceptibly at the readings 45 and 70 minutes after entering, reaching a maximum of 102.6° F., in D at the 70-minute reading, he having carried a light ladder about 50 feet during the interval between the 45 and 70 minute readings. The maximum body temperature of A, B, and C (101.8°, 101.4°, and 101.5°, respectively) was reached at the 70-minute reading, and none of these men had exerted himself in the slightest degree, other than to take readings of temperature, blood pressure, etc. Pulse rate had started to rise slightly at the reading 10 minutes after entering the hot, humid, still atmosphere, and continued to rise at the 25, 45, and 70 minute readings, except that in case of B and D there was a slight fall in pulse beat between the 45 and 70 minute readings.

After having remained practically at rest 70 minutes at the face of this abandoned crosscut, in stagnant air 97½° F. and 89 per cent relative humidity, all perspiring freely and having increased body temperature and pulse rate and decreased blood pressure, the men walked about 200 feet to a point where air was being discharged from the end of a canvas tube at a rate of 2,300 linear feet per minute, this air having a temperature of 82° wet bulb, 89½° dry bulb, and a relative humidity of 80 per cent. A, B, and C stopped at the end of this pipe, and D went out to the shaft station. A sat with his head in the direct air current about 3 feet from the end of the canvas tube; B sat at one side somewhat out of the current; and C sat out of the current for 12 minutes and partly in the air current for 3 minutes. At the end of 15 minutes A's temperature fell from 101.8° to 100.9° F., pulse rate fell from 136 to 120, blood pressure rose from 98 to 106 systolic,

and from 68 to 82 diastolic. Meanwhile B, sitting a few feet distant in *still* air with essentially the same temperature and humidity as that of the *moving current* in which A sat, had only a slight bodily temperature decrease of from 101.4° to 101.2°, showing the decided influence of *air movement* even when the air had high temperatures. C, also sitting near A, but within the direct air current only 3 minutes, showed slight increase of bodily temperature, but had a marked rise in blood pressure and a very definite fall in pulse rate.

As in similar readings in Mine No. 1, there was a definite fall in blood pressure immediately upon reaching the surface, with subsequent slow increase and a return to normal after a good meal had been eaten.

Table IV gives data as to the effect of doing moderate work in an abandoned stope of mine No. 2, 3 floors down from 2,800-foot level, in practically stagnant air, with wet bulb 85½° to 86° F. and relative humidity about 96 per cent—a condition typical of blind-end drift, crosscut, and stope faces in many deep mines. The four subjects remained practically at rest the first 55 minutes, the only effort being that due to climbing down from timber to timber for about 25 feet from the level to the stope below, this effort being reflected in the slightly increased bodily temperature and pulse rate at the 15-minute reading.

Just previous to the 65-minute reading, A and D started to exercise by climbing up and down ladders, B and C remaining at rest. A, who weighed 120 pounds, climbed up and down an 8-foot ladder 15 times in 5 minutes after taking the 55-minute reading; the 65-minute reading shows a slight *increase* in blood pressure, a decided increase in bodily temperature (from 99.5° to 100.3° F.), and an equally great increase in pulse rate. Just after the 65-minute reading, A again climbed up and down the 8-foot ladder 15 times in 5 minutes, and at the 85-minute reading his blood pressure had again risen slightly while temperature had risen from 100.3° to 100.9°, but the pulse remained at 128. D, who weighed 160 pounds, climbed the 8-foot ladder up and down 3 times in 40 seconds, starting immediately after the 55-minute reading (this allowed about 8 or 9 minutes rest before taking the 65-minute reading), and he showed practically no change in blood pressure or temperature, though his pulse rate jumped from 96 (which he had held uniformly while at rest during the first 55 minutes) to 108. Immediately after the 65-minute reading he again climbed up and down the 8-foot ladder 3 times in 40 seconds and rested about 18 minutes before the 15-minute reading, which again showed very little change of bodily temperature or blood pressure, but an increase of pulse rate from 108 to 132.

In this series of readings it is noticeable that there was comparatively little drop in blood pressure or increase in bodily temperature

TABLE IV.

Location.	Time in minutes after entering mine.	A.				B.				C.				D.				Air conditions.		
		Systolic.	Diastolic.	Body temperature.	Pulse rate.	Systolic.	Diastolic.	Body temperature.	Pulse rate.	Systolic.	Diastolic.	Body temperature.	Pulse rate.	Systolic.	Diastolic.	Body temperature.	Pulse rate.	Wet bulb.	Dry bulb.	Relative humidity (per cent).
On surface	000	106	66	98.7	102	108	78	99.8	86	102	74	99.4	84	124	80	99.4	90	59½	64½	74
Stope, 3 floors down from level	15	110	80	99.6	108	104	78	99.8	120	98	74	99.3	80	118	78	100.0	96	85½	86½	96
Do	35	105	78	99.4	96	102	78	99.9	98	100	76	99.6	84	116	78	99.4	96	85½	86½	96
Do	55	104	82	99.5	96	100	78	99.9	104	98	76	99.7	84	114	82	99.4	96	85½	86½	96
Do	65	108	80	100.3	128	.....	.....	.....	.....	.....	.....	.....	.....	116	80	99.4	108	85½	86½	96
Do	85	110	84	100.9	128	.....	.....	.....	.....	.....	.....	.....	.....	112	84	99.4	132	85½	86½	96
Do	105	.....	.....	.....	.....	100	72	99.9	100	96	72	99.8	86	.....	.....	.....	.....	86	87	96
On surface 10 minutes	140	104	72	100.5	104	106	78	99.9	92	98	74	99.8	84	118	80	99.4	80	61	78	36

or pulse rate as long as the four investigators remained quiet in the still air with temperature 85½° to 86° F. wet bulb and relative humidity 96 per cent. When light work was done, such as climbing up 24 feet of vertical ladder and then down, with 8 to 18 minutes rest before taking readings, there was little or no perceptible change of blood pressure or of bodily temperature, but a definite increase of pulse rate. On the other hand, when 120 feet of vertical ladder was climbed up and down in five minutes, with 3 to 14 minutes' rest before taking a reading, although blood pressure was affected only slightly, there was a perceptible increase in bodily temperature. As climbing up and then down 120 feet of vertical ladder in 5 minutes can not be called very strenuous work it would seem that any attempt at actual sustained performance of hard work under the above conditions would result in high body temperatures. Upon coming to the surface, all subjects gave readings that were almost normal, this being true of blood pressure and pulse rate and of bodily temperature in all but A, whose bodily temperature remained over 100° F., owing presumably to his having exercised somewhat more strenuously than his companions. None of the subjects experienced any unusual symptoms except A, who thought he became tired more easily than usual.

The above study, involving readings on a few men for a few days, and under comparatively little diversity as to conditions, is at best inconclusive, and it is recommended that much additional data be obtained in order to ascertain the effect on the human system of working in hot, humid, stagnant air, such as is so frequently found in our metal mines. Data should also be obtained as to the effect of hard work in cool mines on blood pressure, bodily temperature, pulse rate, etc.; and similar data should be ascertained for air with various temperatures, wet and dry bulb, and still as well as moving air, together with data on the effect of various kinds of mine air impurities, such as CO_2, and the lack of oxygen on the human system.

Summary.

I. In still air in metal mines, with a wet bulb temperature over 90° F. and under 100° F., and with a relative humidity of 89 per cent or higher, the following signs and symptoms were found, even when little or no exercise was taken:

1. Blood pressure, systolic and diastolic, fell rapidly.
2. Body temperature rose; in one case it reached 102° F., and this after less than two hours having been spent in the hot, humid air described.
3. Pulse rate increased and seemed more sensitive to exercise than normally.
4. Perspiration was very profuse.
5. Dizziness was a common symptom, and sometimes was marked.

6. Physical weakness or exhaustion was marked in some cases and present in all.

7. Inability to think quickly or accurately was a very common symptom.

8. Nausea was occasionally found.

9. Headache was also occasionally found.

10. Loss of weight was especially marked in men who had been employed under above conditions over a period of years, but occurred even after exposure only a few days.

II. In still air, with wet bulb temperatures of from 85° F. to 86° F. and a relative humidity of 96 per cent, there were no marked changes in the blood pressure or body temperature, nor were the symptoms dizziness, physical weakness, and inability to think or act quickly, mentioned in I, found as long as the subjects remained at rest or took only light exercise. When moderate exercise was taken—climbing up and down an eight-foot ladder fifteen times in five minutes—the blood pressure and body temperature rose somewhat.

III. Blood-pressure readings taken after the subject had reached the cool air of the surface were found to vary considerably with men unaccustomed to high temperatures. Under conditions which resulted in a rise of body temperature to 100° F., or more, the systolic pressure fell, but where the conditions were such as not to cause the body temperature to rise above 100° F., there was a rise in the systolic pressure when the subjects reached the surface. In one man, long accustomed to hot, humid air, a fall of systolic pressure was also found. In three others, not accustomed to the conditions mentioned, there was a rise of systolic pressure.

IV. It was found that the body temperatures reached normal in from one to two hours after the subjects had reached the cool air of the surface after having been subjected to conditions that caused a rise above 100° F.

V. It was noted that a shower bath, beginning with tepid water and ending with a dash of cold water, had but little immediate effect upon the body temperature.

ACKNOWLEDGMENTS.

This study is based upon data which have in part been secured by C. A. Allen and K. T. Sparks, mining engineers, United States Bureau of Mines, to whom we express our grateful appreciation.

INDEX TO PUBLIC HEALTH REPORTS, VOL. 35, PART 1, 1920.

The index, with title page, to Vol. 35, Part 1 of Public Health Reports for 1920 is now available and may be had on application to the Surgeon General, United States Public Health Service, Washington, D. C.

DEATHS DURING WEEK ENDED JAN. 15, 1921.

[From the Weekly Health Index, Jan. 18, 1921, issued by the Bureau of the Census, Department of Commerce.]

Deaths from all causes in certain large cities of the United States during the week ended Jan. 15, 1921, infant mortality, annual death rate, and comparison with corresponding week of preceding years.

City.	Estimated population, July 1, 1921.	Week ended Jan. 15, 1921.		Average annual death rate per 1,000.[2]	Deaths under 1 year.		Infant mortality rate.[3]	
		Total deaths.	Death rate.[1]		Week ended Jan. 15, 1921.	Previous year or years.[2]	Week ended Jan. 15, 1921.[4]	Corresponding week, 1919.
Akron, Ohio	229,195	40	9.1	[5] 10.8	7	[5] 4	67	106
Albany, N. Y	115,071	39	17.7	C 22.9	4	C 9	90	81
Atlanta, Ga	207,473	62	15.6	C 20.5	5	C 6	.....	.....
Baltimore, Md	751,537	207	14.4	A 19.1	30	A 26	84	98
Birmingham, Ala	185,514	67	18.8	A 16.2	11	A 5	.....	.....
Boston, Mass	757,634	198	13.6	A 19.9	26	A 38	70	97
Bridgeport, Conn	149,502	25	8.7	A 18.9	5	A 6	63	88
Buffalo, N. Y	518,568	123	12.4	C 16.0	20	C 37	77	110
Cambridge, Mass	110,169	22	10.4	A 17.0	3	A 5	54	70
Camden, N. J	119,672	42	18.3	.....	5	.....	.....	.....
Chicago, Ill	2,780,086	707	13.3	A 17.3	106	A 132	.....	.....
Cincinnati, Ohio	403,316	116	15.0	C 21.2	5	C 13	33	88
Cleveland, Ohio	831,132	201	12.6	C 13.1	31	C 33	83	95
Columbus, Oh o	245,358	84	17.9	C 13.9	12	C 9	139	94
Dallas, Tex	165,282	34	10.7	A 13.9	1	A 4	.....	.....
Dayton, Ohio	159,586	38	12.4	C 17.6	2	C 8	33	89
Denver, Colo	263,010	96	19.0	A 17.4	18	.....	.....	.....
Detroit, Mich	1,070,520	199	9.7	.....	49	.....	93	97
Fall River, Mass	120,068	24	10.4	C 18.2	7	C 13	105	119
Grand Rapids, Mich	141,197	52	19.2	C 12.8	4	C 4	68	85
Houston, Tex	144,108	24	8.7	.....	2	.....	.....	.....
Indianapolis, Ind	325,215	81	13.0	C 15.0	8	C 9	62	80
Jersey City, N. J	302,511	77	13.3	C 20.5	4	C 25	.....	.....
Kansas City, Kans	103,793	20	10.0	.....	1	.....	24	108
Kansas City, Mo	336,157	119	18.5	C 19.2	16	C 8	.....	.....
Los Angeles, Calif	610,259	201	17.2	A 17.6	19	A 14	90	67
Louisville, Ky	236,083	61	13.5	C 21.9	5	C 5	58	96
Lowell, Mass	113,435	40	18.4	A 17.1	6	A 7	97	124
Memphis, Tenn	165,389	34	10.7	C 22.9	4	C 4	.....	.....
Milwaukee, Wis	468,386	95	10.6	A 11.9	22	A 20	107	101
Minneapolis, Minn	392,717	90	12.0	C 9.3	10	C 12	57	65
Nashville, Tenn	119,536	35	15.3	C 24.1	3	C 6	.....	.....
New Bedford, Mass	125,012	28	11.7	A 16.6	7	A 9	108	122
New Haven, Conn	166,836	43	13.4	C 20.1	6	C 7	71	73
New Orleans, La	394,875	123	16.2	A 22.4	18	A 17	.....	.....
New York, N. Y	5,753,141	1,396	12.7	C 18.1	179	C 319	70	81
Norfolk, Va	121,260	28	12.0	.....	2	.....	35	108
Oakland, Calif	226,587	49	11.3	A 14.9	5	A 5	63	61
Omaha, Nebr	197,066	42	11.1	C 10.9	6	C 1	.....	.....
Philadelphia, Pa	1,865,494	499	13.9	[5] 20.7	59	[5] 80	71	91
Pittsburgh, Pa	596,241	192	16.8	C 25.6	36	C 45	128	114
Portland, Oreg	264,859	63	12.4	C 11.8	7	C 5	70	69
Providence, R. I	239,645	62	13.5	C 19.5	12	C 14	.....	.....
Richmond, Va	175,686	48	14.2	C 20.8	8	C 8	97	106
Rochester, N. Y	305,344	71	12.1	C 14.2	1	C 19	8	74
St. Louis, Mo	786,164	201	13.3	C 16.7	18	C 31	.....	.....
St. Paul, Minn	237,661	49	10.8	C 11.7	1	C 0	10	68
Salt Lake City, Utah	121,595	34	14.6	A 14.8	11	.....	170	77
San Francisco, Calif	522,546	152	15.2	C 14.6	11	C 6	64	62
Spokane, Wash	104,174	25	12.5	C 10.5	2	C 5	44	55
Springfield, Mass	135,559	26	10.0	.....	7	.....	106	84
Syracuse, N. Y	177,184	47	13.8	C 13.8	6	C 9	72	91
Toledo, Ohio	253,632	72	14.8	A 17.3	6	A 9	60	90
Trenton, N. J	122,760	34	14.4	A 24.4	7	A 10	.....	.....
Washington, D. C	454,026	128	14.7	A 17.3	13	A 10	76	85
Wilmington, Del	113,408	33	15.2	C 18.8	5	.....	.....	.....
Worcester, Mass	184,955	50	14.1	C 14.6	5	C 7	54	92
Yonkers, N. Y	103,381	24	12.1	A 19.0	4	A 7	91	80
Youngstown, Ohio	139,432	31	11.6	.....	4	.....	51	99

[1] Annual rates per 1,000 population.
[2] "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1918.
[3] Cities left blank are not in the registration area for births.
[4] Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1920.
[5] Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegraph from industrial insurance companies for week ended Jan. 15, 1921.

Policies in force	45,700,065
Number of death claims	8,697
Death claims per 1,000 policies in force, annual rate	11.1

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 STATE SUMMARIES.

Telegraphic Reports for Week Ended Jan. 22, 1921.

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

ALABAMA.

	Cases.
Chicken pox	26
Diphtheria	13
Hookworm	55
Pellagra	1
Pneumonia	11
Scarlet fever	11
Smallpox:	
Jefferson County	55
Scattering	25
Typhoid fever:	
Talladega County	23
Scattering	8

ARKANSAS.

Chicken pox	31
Diphtheria	24
Influenza	75
Malaria	20
Measles	53
Ophthalmia neonatorum	1
Pellagra	8
Scarlet fever	22
Smallpox	11
Tuberculosis	10
Typhoid fever	9
Whooping cough	34

CALIFORNIA.

Cerebrospinal meningitis—San Francisco	5
Influenza	30
Lethargic encephalitis—Los Angeles	2
Smallpox:	
Merced County	10
Sacramento	14
San Francisco	55
Scattering	71
Typhoid fever	5

CONNECTICUT.

Anthrax	1
Cerebrospinal meningitis	4
Chicken pox	52

CONNECTICUT—continued.

Diphtheria:	Cases.
Hartford	11
New Britain	12
New Haven	15
Scattering	58
German measles	1
Influenza	13
Measles:	
Canton	30
Farmington	14
New Britain	45
Wallingford	9
Scattering	41
Mumps	72
Ophthalmia neonatorum	1
Pneumonia (lobar)	25
Poliomyelitis	1
Scarlet fever:	
Bridgeport	10
Meriden (city)	14
New Haven	36
Waterbury	12
Winchester	8
Scattering	71
Trichinosis	1
Tuberculosis (all forms)	28
Whooping cough	129

DELAWARE.

Chicken pox	2
Diphtheria	10
Influenza	12
Malaria	1
Measles	4
Pneumonia	9
Scarlet fever	4
Tuberculosis	11
Whooping cough	4

FLORIDA.

Diphtheria	20
Influenza	4
Malaria	6

FLORIDA—continued.

	Cases.
Ophthalmia neonatorum	1
Scarlet fever	14
Smallpox	32
Typhoid fever	19

GEORGIA.

Cerebrospinal meningitis	1
Chicken pox	40
Conjunctivitis (acute infectious)	1
Diphtheria	14
Dysentery (bacillary)	1
German measles	1
Hookworm	28
Influenza	26
Malaria	7
Measles	38
Mumps	7
Pneumonia	12
Scarlet fever	5
Septic sore throat	5
Smallpox	89
Tetanus	4
Tuberculosis (pulmonary)	13
Typhoid fever	3
Whooping cough	6

ILLINOIS.

Cerebrospinal meningitis—Chicago	3
Diphtheria:	
Chicago	297
Evanston	8
Scattering	53
Influenza	270
Lethargic encephalitis:	
Alton	1
Anna	1
Chicago	22
Woodstock	1
Pneumonia	283
Scarlet fever:	
Bloomington	15
Chicago	200
Normal	8
Rockford	13
Springfield	42
Scattering	164
Smallpox:	
East St. Louis	9
Rockford	29
Springerton	8
Vandalia	17
Wayne County—Elm River Township	8
Scattering	108
Typhoid fever	15

INDIANA.

Diphtheria	54
Rabies in animals:	
Pike County	1
Vigo County	1
Scarlet fever	285
Smallpox	194
Typhoid fever	7

IOWA.

Cerebrospinal meningitis:	Cases.
Goldfield	1
Tama	3
Diphtheria	28
Scarlet fever	135
Smallpox:	
Bagley	19
Dubuque	53
Ottumwa	12
Shenandoah	42
Scattering	128

KANSAS.

Anthrax	2
Cerebrospinal meningitis	2
Chicken pox	108
Diphtheria	106
German measles	4
Influenza	13
Malaria	1
Measles	300
Mumps	17
Pneumonia	61
Poliomyelitis	1
Scarlet fever	195
Smallpox	118
Trachoma	1
Tuberculosis	36
Typhoid fever	4
Whooping cough	37

LOUISIANA.

Cerebrospinal meningitis	2
Diphtheria	17
Scarlet fever	12
Smallpox	116
Typhoid fever	20

MAINE.

Chicken pox	24
Diphtheria	32
German measles	2
Influenza	14
Lethargic encephalitis	1
Measles	212
Mumps	6
Pneumonia	10
Scarlet fever	35
Septic sore throat	3
Smallpox	3
Tuberculosis	18
Typhoid fever	28
Whooping cough	18

MARYLAND.[1]

Chicken pox	109
Diphtheria	66
German measles	1
Influenza	82
Lethargic encephalitis	3
Measles	70
Mumps	22
Ophthalmia neonatorum	2
Pneumonia (all forms)	115

[1] Week ended Friday.

MARYLAND—continued.

	Cases.
Scarlet fever	52
Septic sore throat	24
Smallpox	4
Trachoma	2
Tuberculosis	65
Typhoid fever	7
Whooping cough	127

MASSACHUSETTS.

Cerebrospinal meningitis	4
Chicken pox	284
Conjunctivitis (suppurative)	4
Diphtheria	248
Dysentery	1
German measles	9
Influenza	39
Measles	526
Mumps	82
Ophthalmia neonatorum	22
Pneumonia (lobar)	142
Poliomyelitis	1
Scarlet fever	269
Septic sore throat	3
Smallpox	6
Tuberculosis (all forms)	158
Typhoid fever	6
Whooping cough	183

MINNESOTA.

Cerebrospinal meningitis—Minneapolis	1
Chicken pox	35
Diphtheria	68
Influenza	1
Measles	28
Pneumonia	3
Scarlet fever:	
Minneapolis	75
Scattering	68
Smallpox:	
Minneapolis	273
Scattering	307
Tuberculosis	59
Typhoid fever	7
Whooping cough	10

MISSISSIPPI.

Diphtheria	12
Scarlet fever	13
Smallpox	39
Typhoid fever	6

MISSOURI.

Cerebrospinal meningitis	4
Chicken pox	151
Diphtheria	131
Epidemic sore throat	22
Influenza	40
Measles	153
Mumps	28
Scarlet fever	195
Smallpox	258
Trachoma	4
Tuberculosis	65
Typhoid fever	8
Whooping cough	84

MONTANA.

	Cases.
Cerebrospinal meningitis—Billings	1
Diphtheria	18
Scarlet fever	24
Smallpox	34

NEBRASKA.

Chicken pox	41
Diphtheria	14
Influenza	1
Measles	12
Mumps	10
Scarlet fever:	
Omaha	8
Scattering	32
Smallpox:	
Omaha	10
Saline County	17
Wilber	9
Scattering	77
Tuberculosis	2
Typhoid fever	5

NEW JERSEY.

Cerebrospinal meningitis	5
Chicken pox	287
Diphtheria	211
Influenza	22
Measles	81
Pneumonia	151
Poliomyelitis	1
Scarlet fever	262
Smallpox	1
Trachoma	1
Trichinosis	1
Typhoid fever	4
Whooping cough	201

NEW MEXICO.

Chicken pox	10
Diphtheria:	
Berino	8
Scattering	18
German measles	1
Measles	178
Mumps	25
Pneumonia	13
Scarlet fever	13
Smallpox	2
Trachoma	2
Tuberculosis	41
Typhoid fever	3
Whooping cough	26

NEW YORK.

(Exclusive of New York City.)

Cerebrospinal miningitis:	
Frankfort	1
Penfield	1
Rensselaer	1
Diphtheria	349
Influenza	96
Lethargic encephalitis	5
Measles	1,514
Pneumonia	376

NEW YORK—continued.

	Cases.
Poliomyelitis:	
Buffalo	1
Dolgeville	1
Scarlet fever	398
Typhoid fever	25
Whooping cough	464

NORTH CAROLINA.

Cerebrospinal meningitis	4
Chicken pox	141
Diphtheria	43
German measles	3
Measles	421
Scarlet fever	28
Septic sore throat	2
Smallpox	90
Typhoid fever	3
Whooping cough	314

SOUTH DAKOTA.

Cerebrospinal meningitis	1
Chicken pox	12
Diphtheria	23
Influenza	2
Measles	11
Pneumonia	6
Scarlet fever	54
Smallpox	73
Tuberculosis	2
Typhoid fever	1

TEXAS.

Chicken pox	72
Diphtheria	20
Measles	26
Mumps	8
Paratyphoid fever	1
Scarlet fever	17
Smallpox	20
Trachoma	1
Typhoid fever	3

VERMONT.

Chicken pox	46
Diphtheria	4
Influenza	2
Measles	58
Mumps	7
Pneumonia	7
Scarlet fever	38
Smallpox	6
Typhoid fever	2
Whooping cough	42

VIRGINIA.

Smallpox:	Cases.
Bland County—Present.	

WASHINGTON.

Chicken pox	100
Diphtheria	27
Measles	49
Mumps	11
Scarlet fever	65
Smallpox	103
Tuberculosis	3
Typhoid fever	9
Whooping cough	13

WEST VIRGINIA.

Diphtheria:	
Wheeling	12
Scattering	18
Measles:	
Bluefield	10
Charleston	139
Hinton	45
Wheeling	9
Scattering	5
Scarlet fever	22
Smallpox	14
Typhoid fever	3

WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis	4
Chicken pox	55
Diphtheria	50
German measles	2
Measles	11
Scarlet fever	44
Smallpox	23
Tuberculosis	13
Typhoid fever	1
Whooping cough	15
Scattering:	
Cerebrospinal meningitis	1
Chicken pox	142
Diphtheria	81
Influenza	44
Measles	124
Poliomyelitis	1
Scarlet fever	189
Smallpox	232
Tuberculosis	15
Typhoid fever	4
Whooping cough	106

District of Columbia Report for Week Ended Jan. 15, 1921.

Chicken pox	47
Diphtheria	21
Influenza	2
Measles	14
Scarlet fever	36
Smallpox	1
Tuberculosis	20
Typhoid fever	4
Whooping cough	24

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
1920.										
Connecticut (December)	3	523	32	6	197	.....	.....	608	.....	35
Delaware (June)	.....	12	.....	.....	164	.....	.....	40	1	7
Delaware (October)	.....	40	2	.....	7	.....	.....	30	.....	21
Delaware (December)	1	27	41	3	11	.....	.....	50	.....	15
Indiana (July)	3	96	.....	.....	274	.....	1	215	254	56
Indiana (September)	2	122	.....	.....	26	.....	7	195	112	99
Indiana (December)	2	515	.....	.....	137	.....	1	1,085	794	66
Louisiana (December)	5	80	59	61	577	19	1	62	254	50
Maryland (December	5	392	201	9	340	.....	4	272	16	87
Michigan (December)	.....	1,583	.....	.....	256	.....	6	1,484	795	118
Minnesota (December)	5	149	.....	94	.....	.....	3	191	1,430	48
Mississippi (December)	3	233	744	4,361	83	178	.....	150	118	89
New Jersey (December)	3	1,049	120	4	381	.....	2	805	1	48
New Mexico (November)	.....	117	7	2	78	.....	.....	45	6	52
New Mexico (December)	.....	140	2	1	219	.....	.....	44	7	30
Oklahoma (October)	.....	671	1	.....	2	8	.....	85	195	87
Oklahoma (November)	.....	363	18	.....	40	13	.....	74	54	8
Oklahoma (December)	1	265	22	.....	73	1	.....	125	104	35
Rhode Island (December)	3	188	4	.....	207	.....	1	116	.....	8
South Dakota (December)	3	58	13	.....	108	.....	.....	146	149	3
Virginia (December)	12	719	1,228	188	936	6	1	400	120	80
West Virginia (December)	2	290	127	.....	463	.....	.....	228	255	64

RECIPROCAL NOTIFICATION.

Minnesota—December, 1920.

Cases of communicable diseases referred during December, 1920, to other State health departments by Department of Health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Diphtheria: Queen township, Polk County.	Alkabo, Divide County, N. Dak.	Diphtheria bacilli were found in throat culture examination in Minnesota State Board of Health Jan. 14, 1921.
Tuberculosis: Thomas Hospital, Minneapolis.	Paulson, Divide County, N. Dak.	Released from Thomas Hospital an improved case, Oct. 18, 1920.
Bemidji, Beltrami County.	Alkabo, Divide County, N. Dak.	Tubercle bacilli in specimen examined Jan. 14 by Division of Preventable Diseases.
Thomas Hospital, Minneapolis.	Fargo, Cass County, N. Dak.	Was released from Thomas Hospital Oct. 4, 1920, unimproved.
Do.	Davenport, Cass County, N. Dak.	Was released from Thomas Hospital, improved case, Nov. 13.
Do.	Cogswell, Sargent County, N. Dak.	Was released from Thomas Hospital, improved case, Nov. 21.
Pokegama Sanatorium, Pine County.	Williston, Williams County, N. Dak.	Incipient case left Pokegama Sanatorium Nov. 4.
Do.	Gackle, Logan County, N. Dak.	Left Pokegama Sanatorium Nov. 27; advanced case.
Mayo Clinic, Rochester, Olmstead County.	York, R. R. No. 2, Benson County, N. Dak.	Moderately advanced, diagnosed by Mayo Clinic.
Pokegama Sanatorium, Pine County.	Powers Lake, Burke County, N. Dak.	Advanced case. Left for home, Powers Lake, Dec. 12.

RECIPROCAL NOTIFICATION—Continued.

Minnesota—December, 1920—Continued.

Cases of communicable diseases referred during December, 1920, to other State health departments by Department of Health of the State of Minnesota—Continued.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Tuberculosis—Contd.		
Thomas Hospital, Minneapolis.	New Rockford, Eddy County, N. Dak.	Improved case. Left for home, New Rockford, N. Dak.
Do.	Fort Pierre, Stanley County, S. Dak.	Left Thomas Hospital, improved case, for Fort Pierre, S. Dak., Nov. 11.
Pokegama Sanatorium, Pine County.	Sioux Falls, Minnehaha County, S. Dak.	Released from Pokegama Sanatorium, Dec. 21, advanced case.
	New Effington, Roberts County, S. Dak.	Left for home, New Effington, advanced case.
Mineral Springs Sanatorium, Goodhue County.	Bloomington, Franklin County, Nebr.	Left for Bloomington, improved case, Dec. 7.
Mayo Clinic, Rochester, Olmstead County.	Vulcan, Dickinson County, Mich.	Diagnosed advanced case, Mayo Clinic.
	Herrin, Williamson County, Ill.	Diagnosed moderately advanced case, Mayo Clinic.
Nopeming Sanatorium, St. Louis County.	Chicago, Cook County, Ill.	Left Nopeming Sanatorium, Oct. 19, condition improved.
Mayo Clinic, Rochester, Olmsted County.	Electra, Box 86, Wichita County, Tex.	Diagnosed positive case at Mayo Clinic.
Pokegama Sanatorium, Pine County.	Glasgow Valley County, Mont.	Left Pokegama Sanatorium for home, Glasgow, moderately advanced case.
Mayo Clinic, Rochester, Olmsted County.	Tripoli, Oneida County, Wis.	Diagnosed at Mayo Clinic, advanced case.
	Boyd, R. R. No. 1, Chippewa County, Wis.	Diagnosed at Mayo Clinic, moderately advanced case.
Sand Beach Sanatorium, Becker County.	Hillsdale, Barron County, Wis.	Left Sand Beach Sanatorium, Dec. 10, improved case.
Pokegama Sanatorium, Pine County.	Ashland, Ashland County, Wis.	Left Pokegama Sanatorium for home, Ashland. Far advanced case.
Thomas Hospital, Minneapolis, Minn.	Bruce, Rusk County, Wis.	Fatal case of tuberculosis, was taken to home at Bruce, Wis., from Thomas Hospital.
Pokegama Sanatorium, Pine County.	Cresco, Howard County, Iowa.	A far advanced case of tuberculosis died at Pokegama, Dec. 8.

PLAGUE.[1]

HUMAN CASES OF PLAGUE REPORTED.

Place.	Period covered.	Cases.	Deaths.	Remarks.
	1921.			
Florida:				
Pensacola	Jan. 1 to 22	0	0	
Louisiana:				
New Orleans	do	0	0	
Texas:				
Beaumont	do	0	0	
Galveston	do	0	0	

[1] A summary of the reports received of the occurrence of plague and the finding of plague-infected rodents in the United States during 1920 was published in Public Health Reports, Jan. 7, 1921, p. 15.

PLAGUE—Continued.

PLAGUE-INFECTED RODENTS.

Place.	Period covered.	Rodents found plague infected.
	1921.	
Florida:		
Pensacola	Jan. 1 to 19	0
	Jan. 20	1
Louisiana:		
New Orleans	Jan. 1 to 15	3
	Jan. 16 to 22	7
Texas:		
Beaumont	Jan. 1 to 22	0
Galveston	do	0

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921.

CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	1921		Place.	Median for previous years.	1921	
		Cases.	Deaths.			Cases.	Deaths.
California:				New Hampshire:			
Los Angeles	0	1	.....	Manchester	0	1	.....
San Francisco	0	1	.....	New Jersey:			
Santa Barbara	.....	.....	1	Jersey City	0	1	.....
Illinois:				Passaic	0	.....	1
Chicago	2	1	1	West New York	0	.....	1
Freeport	0	1	.....	New York:			
Galesburg	0	.....	1	Buffalo	0	.....	1
Huntington	0	1	1	New York	4	4	1
Maryland:				Schenectady	0	1	1
Baltimore	0	1	.....	Ohio:			
Massachusetts:				Akron	0	1	.....
Boston	1	2	1	Lorain	0	1	.....
Malden	0	1	1	Pennsylvania:			
New Bedford	0	1	.....	Philadelphia	0	2	.....
Michigan:				Rhode Island:			
Detroit	0	1	1	Providence		1	.....
Montana:				South Dakota:			
Butte	0	.....	2	Sioux Falls	0	1	.....
Nevada:				Virginia:			
Reno	0	1	1	Richmond	0	.....	1

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA.

See Telegraphic weekly reports from States, p. 132; Monthly summaries by States, p. 136; and also, p. 145.

INFLUENZA.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Massachusetts—Continued.		
Birmingham		1	Malden	2	
Mobile		2	Somerville	1	
Montgomery	1	1	Taunton		1
Arkansas:			Worcester	6	
Hot Springs	1		Michigan:		
California:			Detroit		1
Los Angeles	2		Flint	1	
San Diego	1		Highland Park	1	
San Francisco	4		Missouri:		
Colorado:			Kansas City		1
Denver		1	St. Louis	2	
Connecticut:			New Jersey:		
New Britain	8		Newark	14	
District of Columbia:			Passaic		1
Washington	2		Trenton	1	
Georgia:			New York:		
Atlanta	4		Albany	8	
Rome	2		Binghamton	5	
Idaho:			Buffalo	2	1
Boise	2		New York	134	9
Illinois:			Niagara Falls	1	1
Chicago	23	2	Saratoga Springs	4	
Danville	1		Schenectady	1	
Indiana:			North Carolina:		
Hammond		1	Durham		1
Kentucky:			Ohio:		
Louisville	2		Akron	1	
Louisiana:			Cincinnati	1	1
Alexandria	1		Cleveland	1	
Baton Rouge	2	2	Columbus		1
New Orleans		1	Oklahoma:		
Maine:			Tulsa	1	
Bangor	3		Pennsylvania:		
Portland	1		Philadelphia	3	1
Maryland:			Texas:		
Baltimore	30	3	Dallas	6	1
Cumberland	3	1	Vermont:		
Massachusetts:			Rutland	3	
Boston	3		Virginia:		
Brookline	1		Petersburg	1	
Cambridge	6		West Virginia:		
Everett	1		Fairmont	1	
Haverhill	2	1	Wisconsin:		
Lynn	3		Marinette	5	

LEPROSY.

	Cases.
California:	
San Francisco	1

MALARIA.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Arkansas:			Texas:		
Little Rock	1		Dallas	3	
California:			Waco	1	
Oakland	1				
Louisiana:					
Alexandria	9				

MEASLES.

See Telegraphic weekly reports from States, p. 132; Monthly summaries by States, p. 136; and also, p. 145.

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

PELLAGRA.

Place.	Cases.	Deaths.
Georgia:		
Atlanta		1
South Carolina:		
Charleston		1
Tennessee:		
Memphis		1

PNEUMONIA (ALL FORMS).

Place.	Cases.	Deaths.
Alabama:		
Birmingham		6
Mobile		1
Montgomery		3
Tuscaloosa	2	
Arizona:		
Tuscon		4
Arkansas:		
Hot Springs		1
Little Rock	2	
California:		
Berkeley		2
Long Beach	2	
Los Angeles	57	12
Oakland		4
Pasadena	1	
Sacramento		6
San Bernardino		2
San Diego		2
Santa Cruz	1	1
Stockton		1
Vallejo		2
Colorado:		
Colorado Springs		1
Denver		24
Greeley		3
Pueblo		3
Connecticut:		
Bridgeport		9
Bristol	1	1
Greenwich	7	2
Hartford		5
Manchester	1	
Meriden	4	1
New Britain	5	3
New Haven		4
New London		4
Norwalk		3
Waterbury		3
Delaware:		
Wilmington		10
District of Columbia:		
Washington		22
Georgia:		
Atlanta		10
Brunswick	2	
Savannah		5
Illinois:		
Bloomington		2
Chicago	274	62
Danville	2	
East St. Louis		3
Elgin		1
Evanston	1	
Freeport		1
Galesburg		2
Oak Park		1
Peoria		1
Quincy		1
Rockford		2
Rock Island	3	
Springfield	1	1
Indiana:		
Bloomington		3
East Chicago		3
Evansville		4
Indiana—Continued.		
Fort Wayne		5
Gary		2
Indianapolis		15
Marion		1
Mishawaka		1
Muncie		1
Richmond		2
South Bend		4
Terre Haute		1
Kansas:		
Coffeyville	1	
Fort Scott		1
Kansas City	4	
Parsons		1
Topeka	6	4
Wichita		3
Kentucky:		
Covington		1
Lexington		2
Louisville	6	6
Louisiana:		
Alexandria	1	
Baton Rouge	1	1
Lake Charles		1
New Orleans		17
Maine:		
Biddeford	1	
Lewiston	1	1
Portland	2	1
Sanford	1	1
Maryland:		
Baltimore	53	30
Cumberland	3	2
Massachusetts:		
Arlington	1	
Beverly	1	
Boston	47	27
Brookline	1	
Cambridge	6	4
Chelsea		3
Chicopee	1	1
Danvers		1
Easthampton	1	
Everett	1	
Fall River		14
Framingham		1
Gardner		1
Greenfield		1
Haverhill	4	1
Holyoke	1	
Lawrence		1
Leominster	3	
Lowell		7
Lynn		2
Malden	4	3
Medford		1
Newton	8	3
Northampton	1	
Plymouth		1
Quincy	3	3
Salem	2	1
Somerville	8	2
Springfield	6	5
Taunton		3
Wakefield	1	1

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

PNEUMONIA (ALL FORMS)—Continued.

Place.	Cases.	Deaths.
Massachusetts—Continued.		
Waltham	1	1
Woburn		2
Worcester		4
Michigan:		
Ann Arbor	1	
Detroit	52	24
Flint	5	2
Grand Rapids	11	3
Highland Park	4	2
Kalamazoo	7	1
Marquette	3	2
Muskegon		1
Pontiac	1	
Minnesota:		
Duluth	2	1
Hibbing	1	
Minneapolis		13
St. Paul		9
Missouri:		
Independence	3	2
Kansas City		16
St. Joseph		6
Montana:		
Anaconda		1
Butte		3
Great Falls	2	2
Missoula		1
Nebraska:		
Omaha		8
New Hampshire:		
Berlin		1
Concord		1
Manchester		5
Nashua		2
Portsmouth	2	
New Jersey:		
Atlantic City	2	
Bayonne	1	
Belleville	4	
Bloomfield	1	
East Orange	6	
Elizabeth		4
Englewood	4	
Hackensack	4	1
Harrison	2	
Hoboken	2	1
Irvington	1	
Jersey City	22	
Kearny	5	3
Montclair	4	1
Morristown		2
Newark	133	18
Orange	4	
Passaic	1	
Paterson	3	
Perth Amboy		2
Phillipsburg		1
Plainfield		3
Trenton	3	3
Union	1	
West New York		1
West Orange	1	
New Mexico:		
Albuquerque		5
New York:		
Albany	14	
Auburn	2	
Binghamton	17	2
Buffalo	41	19
Cohoes	1	1
Elmira		4
Geneva		1
Glens Falls	3	2
Jamestown	5	2
Lockport	1	
Mount Vernon	9	4
New York	510	226
Niagara Falls	4	1
New York—Continued.		
North Tonawanda		1
Peekskill	8	3
Port Chester	5	3
Rochester	11	4
Saratoga Springs	1	
Schenectady	9	1
Syracuse	8	4
Troy	13	3
White Plains	4	1
Yonkers		5
North Carolina:		
Charlotte		3
Greensboro		1
Wilmington		7
Ohio:		
Akron	6	
Alliance		1
Barberton	1	
Chillicothe	1	
Cincinnati		13
Cleveland		25
Columbus		7
Dayton	1	
Lorain	2	
Mansfield	1	
Newark		2
Sandusky	1	
Springfield		1
Steubenville	2	
Oklahoma:		
Muskogee	3	
Oklahoma City		2
Oregon:		
Portland		6
Salem		1
Pennsylvania:		
Philadelphia		71
Rhode Island:		
Cranston	4	4
Pawtucket		9
Providence		14
South Carolina:		
Charleston		4
Spartanburg		1
South Dakota:		
Sioux Falls	1	1
Tennessee:		
Memphis		6
Nashville		2
Texas:		
Beaumont		2
Corpus Christi	1	
Dallas	10	6
El Paso		11
Waco		4
Utah:		
Salt Lake City		4
Vermont:		
Rutland		1
Virginia:		
Lynchburg		1
Norfolk	2	
Petersburg		1
Richmond	3	5
Roanoke	2	2
West Virginia:		
Charleston		4
Huntington		2
Wheeling		7
Wisconsin:		
Beloit	3	1
Green Bay		1
Janesville		2
Kenosha	3	
Oshkosh		1
Racine		5
Superior		3

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	1921.		Place.	Median for previous years.	1921.	
		Cases.	Deaths.			Cases.	Deaths.
Illinois:				Missouri:			
East St. Louis	0	1	.....	St. Louis	0	1	1
Kansas:				New York:			
Topeka	0	1	.....	North Tonawanda	.....	1	.....
Massachusetts:				Ohio:			
Boston	0	.....	1	Norwood	.....	1	.....
Michigan:				Sandusky	0	1	.....
Grand Rapids	0	1	.....				

RABIES IN ANIMALS.

Place.	Cases.
Missouri—Kansas City	3

RABIES IN MAN.

Place.	Cases.	Deaths.
Tennessee—Memphis	1	1

SCARLET FEVER.

See Telegraphic weekly reports from States, p. 132; Monthly summaries by States, p. 136; and also p. 145.

SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	1921		Place.	Median for previous years.	1921	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Idaho:			
Birmingham	1	4	.....	Boise	2	2	.....
Mobile	0	2	.....	Illinois:			
Montgomery	0	3	.....	Bloomington	0	9	.....
California:				Chicago	1	5	.....
Alameda	0	3	.....	Danville	1	2	.....
Long Beach	1	2	.....	East St. Louis	0	20	.....
Los Angeles	2	2	.....	Kewanee	0	1	.....
Oakland	0	2	.....	Mattoon	0	1	.....
Sacramento	0	12	.....	Oak Park	0	2	.....
San Francisco	0	54	.....	Quincy	0	1	.....
Colorado:				Rockford	0	21	.....
Colorado Springs	0	2	.....	Rock Island	1	2	.....
Denver	9	7	.....	Springfield	0	1	.....
Pueblo	0	3	.....	Indiana:			
District of Columbia:				Bedford	0	1	.....
Washington	0	1	.....	Bloomington	0	1	.....
Georgia:				Crawfordsville	.....	4	.....
Atlanta	3	12	.....	Elkhart	0	7	.....
Brunswick	0	1	.....	Evansville	2	1	.....
Savannah	0	1	.....	Fort Wayne	0	7	.....

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

SMALLPOX—Continued.

Place.	Median for previous years.	1921	
		Cases.	Deaths.
Indiana—Continued.			
Frankfort	.....	8	.....
Indianapolis	9	19	.....
La Fayette	1	1	.....
Marion	0	6	.....
Mishawaka	1	24	.....
Richmond	1	1	.....
South Bend	0	26	.....
Terre Haute	0	6	.....
Iowa:			
Burlington	0	1	.....
Cedar Rapids	0	5	.....
Clinton	0	9	.....
Council Bluffs	1	3	.....
Davenport	0	3	.....
Des Moines	1	4	.....
Dubuque	0	36	.....
Mason City	4	2	.....
Sioux City	2	42	.....
Kansas:			
Hutchinson	0	1	.....
Kansas City	1	1	.....
Wichita	1	3	.....
Kentucky:			
Covington	0	1	.....
Louisville	0	2	.....
Louisiana:			
Alexandria	0	3	.....
Baton Rouge	0	1	.....
Monroe	.....	3	.....
New Orleans	8	42	4
Maine:			
Waterville	.....	2	.....
Michigan:			
Ann Arbor	0	3	.....
Battle Creek	0	7	.....
Benton Harbor	0	1	.....
Detroit	5	32	.....
Grand Rapids	1	1	.....
Ishpeming	0	1	.....
Kalamazoo	0	1	.....
Marquette	0	1	.....
Muskegon	.....	2	.....
Sault Ste. Marie	0	10	.....
Minnesota:			
Duluth	0	15	.....
Mankato	0	1	.....
Minneapolis	19	124	.....
St. Cloud	0	3	.....
St. Paul	6	87	.....
Virginia	0	1	.....
Winona	0	9	.....
Missouri:			
Kansas City	3	9	.....
St. Joseph	9	1	.....
St. Louis	2	12	.....
Springfield	0	7	.....
Montana:			
Billings	1	1	.....
Great Falls	2	4	.....
Nebraska:			
Omaha	6	13	.....
Nevada:			
Reno	0	1	.....
New York:			
Auburn	0	2	.....
New York	0	1	.....
Schenectady	0	1	.....
North Carolina:			
Charlotte	0	3	.....
Winston-Salem	0	1	.....
North Dakota:			
Fargo	1	14	.....
Ohio:			
Akron	1	9	.....
Cincinnati	1	7	.....
Cleveland	4	3	.....
Columbus	0	3	.....
Dayton	0	2	.....
Hamilton	.....	5	.....
Lima	0	15	.....
Lorain	0	10	.....
Mansfield	.....	1	.....
Middletown	0	2	.....
New Philadelphia	.....	1	.....
Norwood	0	1	.....
Sandusky	1	1	.....
Toledo	4	2	.....
Oklahoma:			
Oklahoma City	2	2	.....
Tulsa	.....	2	.....
Oregon:			
Portland	4	39	.....
South Carolina:			
Charleston	0	5	.....
Columbia	0	2	.....
South Dakota:			
Sioux Falls	1	3	.....
Tennessee:			
Knoxville	0	1	.....
Memphis	1	2	.....
Texas:			
Beaumont	0	4	.....
Corpus Christi	0	1	.....
Dallas	25	7	.....
Temple	.....	1	.....
Waco	1	1	.....
Utah:			
Salt Lake City	3	31	.....
Vermont:			
Rutland	0	1	.....
Virginia:			
Roanoke	0	1	.....
Washington:			
Aberdeen	1	9	.....
Bellingham	2	2	.....
Seattle	5	6	.....
Spokane	28	41	.....
Tacoma	0	7	.....
Yakima	15	4	.....
West Virginia:			
Bluefield	8	4	.....
Parkersburg	1	3	.....
Wisconsin:			
Appleton	2	1	.....
Beloit	0	1	.....
Green Bay	0	3	.....
Janesville	1	1	.....
Kenosha	0	1	.....
La Crosse	0	6	.....
Madison	0	6	.....
Marinette	0	6	.....
Milwaukee	4	17	.....
Racine	0	1	.....
Sheboygan	.....	29	.....
Wyoming:			
Cheyenne	0	1	.....

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

TETANUS.

Place.	Cases.	Deaths.
Alabama:		
Mobile		3
California:		
Los Angeles		1
Connecticut:		
Birdgeport		1
Georgia:		
Savannah		1
Missouri:		
St. Joseph		1
Nebraska:		
Omaha	1	1
New York:		
New York	1	
North Carolina:		
Wilmington	2	2
Ohio:		
Middletown	1	

TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 132, and also p. 145.

TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	1921	
		Cases.	Deaths.
Alabama:			
Birmingham	1	1	1
California:			
Long Beach	0	1	
Los Angeles	3	1	
Sacramento	1	1	
Colorado:			
Denver	0	2	2
Connecticut:			
Norwalk	0	1	1
Waterbury	0	1	
Delaware:			
Wilmington	0		1
District of Columbia:			
Washington	2	2	
Georgia:			
Atlanta	0	2	
Savannah	0	4	
Idaho:			
Boise	0	12	1
Illinois:			
Chicago	6	5	
Danville	0	1	
East St. Louis	1	2	
Rock Island	0	1	
Indiana:			
Fort Wayne	0		1
Hammond	0		1
Iowa:			
Burlington	0	1	
Muscatine	0	1	
Kansas:			
Atchison	0	1	
Lawrence	0	1	
Topeka	0	1	
Kentucky:			
Covington	0	1	
Louisville	2	2	
Lousiana:			
New Orleans	5	3	1
Maine:			
Auburn	0	1	
Portland	0	2	1
Maryland:			
Baltimore	4	3	
Massachusetts:			
Boston	2	2	
Cambridge	0	1	
Chelsea	0	1	
Fall River	0	3	
Lawrence	0	4	
Leominster	0	2	
Lowell	0	1	1
Pittsfield	0	2	
Somerville	0		1
Massachusetts—Contd.			
Winthrop	0	1	
Michigan:			
Detroit	4	1	
Muskegon		1	
Minnesota:			
Minneapolis	0	1	1
St. Paul	1	4	1
Missouri:			
St. Joseph	0	1	
St. Louis	3	3	
Nevada:			
Reno	0	2	
New Jersey:			
Kearny	0	1	
New York:			
Auburn	0	1	1
Buffalo	1		1
New York	17	11	1
North Tonawanda	0	1	
Schenectady	0	1	
Syracuse	0	1	
Troy	0	1	
North Carolina:			
Winston-Salem	0	1	
Ohio:			
Cincinnati	1	1	
Cleveland	4	2	
Dayton	0	1	
Lima	0	1	
Lorain	0	1	
Norwood	0	1	
Toledo	1	2	
Oklahoma:			
Tulsa		1	
Pennsylvania:			
Philadelphia	7	7	
South Carolina:			
Charleston	1	2	
Columbia	1	1	
Texas:			
Waco	1		1
Virginia:			
Norfolk	0	2	1
Richmond	1	2	1
Washington:			
Spokane	0	1	
West Virginia:			
Parkersburg	0	2	
Wisconsin:			
Beloit	0	2	
Green Bay	0	2	
Madison	0	1	
Racine	0	1	
Sheboygan		4	

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

Place.	Population, Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Anniston	17,734								1	
Birmingham	178,270	61	4		1		5		1	8
Mobile	60,151	24	5	1						2
Montgomery	43,464	21	1		1				2	2
Arizona:										
Tucson	20,292	20								12
Arkansas:										
Fort Smith	28,811		1				1			
Hot Springs	11,695	3								1
Little Rock	64,997				21		4		1	
North Little Rock	14,048	1			3		3			1
California:										
Alameda	28,806	9			2		3		1	1
Berkeley	55,886	17					1		2	1
Eureka	12,923	5					9		1	
Long Beach	55,593	10	2				2		1	
Los Angeles	576,673	196	59	3	120		15	1	39	22
Oakland	216,361		7		2		6		6	1
Pasadena	45,354	15	1		4		2		1	
Riverside	19,341	9	1		34					1
Sacramento	65,857	33	7				3		4	2
San Bernardino	18,721	7								1
San Diego	74,683	35	1	1	13				5	4
San Francisco	508,410	129	20	1	11		16	1	25	5
Santa Barbara	19,441	4								
Santa Cruz	10,917	2								
Stockton	40,296	10	1				1			2
Vallejo	21,107	4								1
Colorado:										
Colorado Springs	30,105	13	1		130		2		40	5
Denver	256,369	99	24	1	113	1	4			14
Greeley	10,883	3								
Pueblo	42,108		10	1	2		5			1
Trinidad	10,906				10					
Connecticut:										
Bridgeport (town) [1]	143,538	39	9		3		14	1		2
Bristol (town) [1]	20,620	4	2				1			
Greenwich (town)	22,123	3	6		2				1	
Hartford (town) [1]	138,036	33	12		4		9	2	2	1
Manchester (town)	18,370	3	1				1			
Meriden (city)	29,842		3	1	1		12			
New Britain (town) [1]	59,316	15	17		38		1			1
New Haven (town) [1]	162,519	46	18	2	2		33		5	2
New London (town) [1]	25,688	8			1		2		1	
Norwalk (town) [1]	27,700	11	3						2	
Norwich (town)	29,685	5	2				3		1	
Waterbury (town) [1]	91,410	16	2	1			9		5	1
Delaware:										
Wilmington	110,168	41	1				2			4
District of Columbia:										
Washington	437,571	136	24		15		37	1	16	11
Georgia:										
Atlanta	200,616	55	7		18		8	1	13	7
Brunswick	14,413	3								
Rome	13,252		2							
Savannah	83,252	38	2				1		3	2
Idaho:										
Boise	21,393	7					3			
Illinois:										
Alton	24,682	8	3	1			1			
Bloomington	28,725	8			1		10			1
Centralia	12,491	5					1			
Chicago	2,701,705	671	226	22	167	2	204	4	132	53
Danville	33,750	18	1				2			
East St. Louis	66,740	13	2				9			1
Elgin	27,454	5	1		14		2			
Evanston	37,215	6	7		1		6			
Freeport	19,669	7					1			
Galesburg	23,834	7	2		4		1			
Kewanee	16,026	5	6	1	2		18			
La Salle	13,050	4					2			1

[1] Coextensive with city of same name.

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Illinois—Continued.										
Oak Park	39,830	10	5	.....	2	.....	10	.....	3	1
Pekin	12,086	.....	2	.....	.....	.....	4	.....	.....	.....
Peoria	76,121	23	1	.....	2	.....	15	.....	.....	2
Quincy	35,978	14	.....	.....	1	.....	1	.....	.....	.....
Rockford	65,651	12	3	.....	5	.....	.....	.....	.....	.....
Rock Island	35,177	8	2	.....	.....	.....	2	.....	1	.....
Springfield	59,183	25	.....	.....	10	.....	56	.....	.....	2
Indiana:										
Bloomington	11,595	8	.....	.....	1	.....	.....	.....	.....	1
Crawfordsville	10,139	1	1	.....	.....	.....	1	.....	1	.....
East Chicago	35,967	12	.....	.....	.....	.....	.....	.....	.....	1
Elkhart	24,277	5	2	.....	.....	.....	2	.....	4	.....
Elwood	10,790	7	.....	.....	.....	.....	.....	.....	.....	.....
Evansville	85,264	27	6	1	.....	.....	3	.....	6	2
Fort Wayne	86,549	15	2	.....	4	.....	6	.....	.....	2
Frankfort	11,385	4	.....	.....	.....	.....	1	.....	.....	.....
Gary	55,378	9	5	.....	3	.....	.....	.....	.....	.....
Hammond	36,004		2	.....	1	.....	4	.....	.....	.....
Huntington	14,000	6	1	1	.....	.....	4	.....	.....	.....
Indianapolis	314,194	88	11	.....	23	.....	6	1	7	6
Kokomo	30,067	7	.....	.....	.....	.....	3	.....	.....	.....
La Fayette	22,486	7	1	.....	.....	.....	6	.....	.....	.....
Logansport	21,626	3	.....	.....	.....	.....	.....	.....	.....	.....
Marion	23,747	8	3	.....	.....	.....	3	.....	.....	.....
Mishawaka	15,195		1	.....	.....	.....	1	.....	1	.....
Muncie	36,524	7	1	.....	9	.....	6	.....	1	.....
Richmond	26,765	10	2	.....	2	.....	2	.....	.....	.....
South Bend	70,983	12	3	1	.....	.....	.....	.....	1	1
Terre Haute	66,083	12	3	.....	2	.....	12	.....	.....	.....
Iowa:										
Burlington	24,057	3	2	.....	.....	.....	1	.....	.....	.....
Cedar Rapids	45,566	.....	1	.....	.....	.....	.....	.....	.....	.....
Clinton	24,151	.....	1	.....	.....	.....	.....	.....	.....	.....
Council Bluffs	36,162	10	.....	.....	1	.....	2	.....	.....	.....
Davenport	56,727	.....	.....	.....	2	.....	5	.....	.....	.....
Des Moines	126,468	.....	11	.....	2	.....	6	.....	.....	.....
Dubuque	39,141	.....	.....	.....	.....	.....	4	.....	.....	.....
Iowa City	11,267	.....	1	.....	.....	.....	.....	.....	.....	.....
Keokuk	14,423	3	.....	.....	3	.....	.....	.....	.....	1
Marshalltown	15,731	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mason City	20,065	3	1	.....	.....	.....	4	.....	.....	.....
Muscatine	16,068	8	.....	.....	.....	.....	.....	.....	.....	.....
Sioux City	71,227	.....	.....	1	.....	.....	4	.....	.....	.....
Kansas:										
Atchison	12,630	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coffeyville	13,452	0	1	.....	.....	.....	.....	.....	.....	.....
Fort Scott	10,693	2	8	.....	1	.....	.....	.....	.....	.....
Hutchinson	23,298	.....	5	.....	1	.....	.....	.....	.....	.....
Kansas City	101,177	.....	23	.....	.....	.....	6	.....	1	.....
Lawrence	12,456	5	.....	.....	.....	.....	.....	.....	.....	.....
Leavenworth	16,912	3	.....	.....	.....	.....	1	.....	2	.....
Parson	16,028	3	1	.....	.....	.....	2	.....	.....	.....
Salina	15,08	2	.....	.....	.....	.....	.....	.....	.....	.....
Topeka	50,022	12	.....	.....	35	.....	9	.....	4	.....
Wichita	72,128	32	.....	1	2	.....	12	.....	2	.....
Kentucky:										
Covington	57,12	17	1	.....	.....	.....	3	.....	2	2
Lexington	41,534	23	.....	.....	1	.....	2	.....	.....	1
Louisville	234,891	72	18	2	1	.....	35	.....	5	6
Paducah	24,735	.....	5	.....	.....	.....	1	.....	.....	.....
Louisiana:										
Alexandria	17,510	7	.....	.....	.....	.....	.....	.....	.....	.....
Baton Rouge	21,782	6	1	.....	1	.....	2	.....	.....	.....
Lake Charles	13,088	3	.....	.....	.....	.....	.....	.....	.....	.....
Monroe	12,675	.....	3	.....	.....	.....	.....	.....	.....	1
New Orleans	387,219	150	10	.....	181	.....	8	.....	30	15
Maine:										
Auburn	16,985	4	1	.....	20	.....	.....	.....	1	.....
Bangor	25,978	.....	.....	.....	6	.....	7	.....	.....	.....
Lewiston	31,791	.....	3	.....	21	.....	1	.....	.....	.....
Portland	69 272	18	.....	.....	6	.....	2	.....	.....	.....
Sanford	10,601	5	.....	.....	.....	.....	.....	.....	.....	.....
Waterville	13,351	.....	2	.....	.....	.....	.....	.....	.....	.....

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Maryland:										
Baltimore	33,826	205	58	1			32		34	17
Cumberland	29,837	14	2		1		2		1	
Massachusetts:										
Adams	12,967	1	1							
Amesbury	10,036	2					1		1	
Arlington	18,665	2			1		1			
Attleboro	19,731	5	3				1			1
Beverly	22,561	8	1				1			1
Boston	748,060	2	75	1	54	1	47	4	50	12
Brookline	37,748	14	1		1				2	1
Cambridge	109,694	31	1		12		10		4	2
Chelsea	43,184	24	7	1	5		3		5	2
Chicopee	36,214	8	1				1			1
Clinton	12,979	7	1		30		1		1	2
Danvers	11,108		1		8				1	
Dedham	10,792	5							1	
Easthampton	11,261		2						3	
Everett	40,120	6	3		1		6		1	
Fall River	120,485	43	3		25	1	4	1	4	2
Framingham	17,033	4			32		2			
Gardner	16,971	5					2			1
Greenfield	15,462	7	1				1		3	
Haverhill	53,884	15	8	1						2
Holyoke	60,203	17	2				2		1	
Lawrence	94,270	27	2		1		5			
Leominster	19,744	5	1	1	4					
Lowell	112,479	44	9	1	98	2	2		7	3
Lynn	99,148	27	6	1	3		7		7	4
Malden	49,103	16	4	1	3		7		2	
Medford	59,038	7	1		3		7			2
Melrose	18,204	8	1				3			
Methuen	15,189	5	1		1		7		2	1
New Bedford	121,217	29	14	2			3		5	2
Newburyport	15,618	5					3	1		1
Newton	46,054	9	4		23		3		1	
Northampton	21,951	4			5		1		1	
Peabody	19,552	2	1						4	1
Pittsfield	41,751	11	3		58		9		3	1
Plymouth	13,045	3								1
Quincy	47,876	9	1		1				2	1
Salem	42,529	15	1		2		5			
Somerville	93,091	28	2		2		5		4	1
Southbridge	14,245	2							1	
Springfield	129,563	37	3	1	2		33		4	4
Taunton	37,137	12	3		22		1		1	
Wakefield	13,025		2				1			
Waltham	30,915	16	1		3		3		1	1
Watertown	21,457	8			1		3			1
Westfield	18,604	8								1
Winthrop	15,455	2			4		2			1
Woburn	15,574	4								
Worcester	179,754	52	1		17		19	1		1
Michigan:										
Ann Arbor	19,516	5	2				1			
Battle Creek	36,164	6			1		4			
Benton Harbor	12,233	1								
Detroit	993,739	262	136	5	24	1	111	6	51	15
Flint	91,599	18	14				17			
Grand Rapids	157,634	26	15	1			12		5	1
Highland Park	46,499	6	3				11		2	
Holland	12,166	2					1			
Ironwood	15,739	2			31		2			
Ishpeming	10,500	0	1							
Kalamazoo	48,858	25	1		5		14			1
Marquette	12,718	6			1					
Muskegon	36,570	9		1			1	1		
Pontiac	34,273	12	1	1	1		11			1
Sault Ste. Marie	12,096	3					3			
Minnesota:										
Duluth	98,917	15	3		1		7		3	3
Hibbing	15,089	4	4		5					
Mankato	12,469	4								
Minneapolis	380,582	110	15	1	5		61		54	8
St. Cloud	15,873						2			

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Minnesota—Continued.										
St. Paul	234,595	68	37	2	3	.....	19	1	15	7
Virginia	14,022	.....	2	.....	.....	.....	1	.....	1	.....
Winona	19,143	.....	1	.....	.....	.....	3	.....	.....	.....
Missouri:										
Cape Girardeau	10,232	5	1	.....	.....	.....	2	.....	.....	.....
Independence	11,686	6	7	.....	1	.....	1	.....	.....	.....
Jefferson City	14,490	2	.....	.....	.....	.....	.....	.....	.....	.....
Joplin	29,855	.....	3	.....	.....	.....	.....	.....	.....	.....
Kansas City	324,410	74	15	2	14	1	17	.....	2	9
St. Joseph	77,939	32	9	1	.....	.....	9	.....	.....	2
St. Louis	772,897	201	144	7	3	.....	61	1	21	6
Springfield	39,631	.....	6	.....	1	.....	.....	.....	.....	.....
Montana:										
Anaconda	11,668	3	.....	.....	.....	.....	3	.....	.....	.....
Billings	15,100	6	1	.....	10	.....	3	.....	1	.....
Butte	41,611	20	.....	.....	9	.....	.....	.....	.....	1
Great Falls	24,121	10	1	.....	58	.....	2	.....	2	2
Missoula	12,668	5	.....	.....	7	.....	.....	.....	.....	.....
Nebraska:										
Lincoln	54,934	8	3	.....	1	.....	3	.....	2	.....
Omaha	191,601	49	8	2	3	.....	10	.....	.....	3
Nevada:										
Reno	12,016	4	.....	.....	.....	.....	.....	.....	.....	.....
New Hampshire:										
Berlin	16,104	1	.....	.....	14	.....	1	.....	.....	.....
Concord	22,167	8	.....	.....	.....	.....	.....	.....	.....	.....
Dover	13,029	5	1	1	16	.....	1	.....	.....	.....
Keene	11,210	1	.....	.....	.....	.....	.....	.....	.....	.....
Manchester	78,384	22	21	1	.....	.....	5	.....	2	4
Nashua	28,379	11	.....	.....	.....	.....	11	.....	.....	2
Portsmouth	13,569	.....	1	.....	1	.....	1	.....	.....	.....
New Jersey:										
Atlantic City	50,682	19	7	.....	1	.....	2	.....	.....	2
Bayonne	76,754	.....	5	.....	.....	.....	6	.....	4	.....
Belleville	15,660	.....	1	.....	1	.....	2	.....	1	.....
Bloomfield	22,019	1	1	.....	1	.....	1	.....	.....	.....
East Orange	50,710	4	5	.....	2	.....	8	.....	1	.....
Elizabeth	95,682	.....	7	1	.....	.....	9	.....	5	2
Englewood	11,627	2	.....	.....	.....	.....	1	.....	.....	.....
Garfield	19,381	.....	2	.....	.....	.....	.....	.....	.....	.....
Gloucester City	12,162	.....	.....	.....	.....	.....	1	.....	1	.....
Hackensack	17,667	7	9	1	.....	.....	.....	.....	.....	.....
Harrison	15,721	.....	4	.....	.....	.....	1	.....	.....	.....
Hoboken	68,166	17	4	.....	.....	.....	1	.....	3	2
Irvington	25,480	.....	1	.....	1	.....	2	.....	1	.....
Jersey City	297,864	.....	37	.....	4	.....	20	.....	20	.....
Kearny	26,724	8	5	.....	.....	.....	4	.....	.....	.....
Montclair	28,810	6	1	.....	3	.....	.....	.....	.....	.....
Morristown	12,548	9	.....	2	.....	.....	3	.....	.....	.....
New Brunswick	32,779	.....	4	.....	.....	.....	2	.....	.....	.....
Newark	414,216	109	39	4	26	.....	55	1	30	7
Orange	33,268	8	3	.....	2	.....	.....	.....	1	.....
Passaic	63,824	17	1	.....	8	.....	7	1	2	1
Paterson	135,866	.....	4	.....	.....	.....	9	.....	4	.....
Perth Amboy	41,707	10	3	.....	6	.....	5	.....	.....	.....
Phillipsburg	16,923	3	1	1	.....	.....	.....	.....	.....	.....
Plainfield	27,700	13	.....	1	.....	.....	5	.....	1	.....
Rahway	11,042	1	.....	.....	.....	.....	.....	.....	.....	.....
Trenton	119,289	33	4	.....	2	.....	4	.....	2	2
Union	20,651	.....	1	.....	1	.....	1	.....	1	.....
West Hoboken	40,068	7	3	.....	.....	.....	.....	.....	2	1
West New York	29,926	5	3	.....	.....	.....	.....	.....	3	.....
West Orange	15,573	0	4	.....	.....	.....	2	.....	1	.....
New Mexico:										
Albuquerque	15,157	16	2	.....	46	.....	.....	.....	1	4
New York:										
Albany	113,344	.....	7	.....	25	.....	2	.....	7	.....
Auburn	36,192	8	.....	.....	1	.....	.....	.....	.....	.....
Binghamton	66,800	19	3	.....	215	.....	2	.....	.....	.....
Buffalo	506,775	127	65	5	51	.....	19	1	21	9
Cohoes	22,987	10	1	1	3	.....	.....	.....	.....	2
Elmira	45,305	19	.....	.....	.....	.....	4	.....	.....	.....
Geneva	14,648	4	.....	.....	.....	.....	.....	.....	.....	.....

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New York—Continued.										
Glens Falls	16,638	10	.....	.....	13	.....	.....	.....	.....	.....
Ithaca	17,004	6	1	.....	5	.....	.....	.....	.....	.....
Jamestown	38,917	10	10	.....	.....	.....	4	.....	.....	1
Lockport	21,308	4	.....	.....	.....	.....	.....	.....	1	.....
Middletown	18,420	.....	10	1	36	.....	6	.....	.....	.....
Mount Vernon	42,726	7	2	.....	1	.....	1	.....	.....	.....
New York	5,621,151	1,409	513	27	86	1	497	14	[1] 271	[1] 119
Niagara Falls	50,760	18	6	1	4	1	19	.....	1	1
North Tonawanda	15,482	5	6	.....	.....	.....	1	.....	.....	.....
Ogdensburg	14,609	4	.....	.....	.....	.....	.....	.....	.....	.....
Olean	20,506	3	.....	.....	.....	.....	.....	.....	.....	.....
Peekskill	15,868	6	.....	.....	52	.....	2	.....	.....	.....
Port Chester	16,573	8	.....	.....	2	.....	.....	.....	.....	.....
Rochester	295,750	53	82	4	3	.....	40	2	7	3
Rome	26,341	.....	.....	.....	8	.....	.....	.....	1	.....
Saratoga Springs	13,181	4	.....	.....	18	.....	.....	.....	.....	.....
Schenectady	88,723	23	6	1	11	.....	5	.....	1	1
Syracuse	171,717	57	21	3	55	.....	33	.....	3	.....
Troy	72,013	19	4	.....	157	.....	.....	.....	1	1
White Plains	21,031	4	5	.....	3	.....	.....	.....	.....	.....
Yonkers	100,226	21	8	1	2	.....	7	.....	.....	4
North Carolina:										
Charlotte	46,338	19	.....	.....	98	.....	.....	.....	2	.....
Durham	21,719	6	1	.....	.....	.....	.....	.....	.....	1
Greensboro	19,861	10	.....	.....	.....	.....	.....	.....	.....	.....
Rocky Mount	12,742	6	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	33,372	17	2	.....	5	.....	1	.....	.....	1
Winston-Salem	48,395	11	.....	.....	35	.....	.....	.....	4	.....
North Dakota:										
Fargo	21,961	3	.....	.....	.....	.....	2	.....	.....	.....
Ohio:										
Akron	208,435	37	3	.....	1	.....	14	.....	11	.....
Alliance	21,603	5	2	.....	.....	.....	1	.....	.....	.....
Barberton	18,811	3	.....	.....	1	.....	.....	.....	.....	.....
Chillicothe	15,831	1	.....	.....	.....	.....	.....	.....	.....	.....
Cincinnati	401,247	131	18	.....	2	.....	36	.....	16	18
Cleveland	796,836	.....	40	5	11	.....	83	4	27	19
Columbus	237,031	63	10	.....	2	.....	23	1	5	4
Dayton	152,559	27	7	.....	.....	.....	7	.....	3	.....
East Cleveland	27,292	.....	1	.....	.....	.....	2	.....	.....	.....
Findlay	17,021	2	.....	.....	.....	.....	1	.....	.....	.....
Fremont	12,468	3	.....	.....	.....	.....	4	.....	.....	.....
Hamilton	39,675	12	.....	.....	.....	.....	16	.....	1	1
Ironton	14,007	5	1	.....	1	.....	11	.....	1	3
Lima	41,306	12	.....	.....	.....	.....	6	.....	.....	1
Lorain	37,295	.....	3	.....	9	.....	3	.....	1	.....
Mansfield	27,824	6	.....	.....	1	.....	1	.....	1	.....
Marion	27,891	.....	2	.....	.....	.....	.....	.....	.....	.....
Middletown	23,594	8	3	.....	.....	.....	1	.....	2	1
Newark	26,718	9	1	.....	.....	.....	2	.....	2	.....
New Philadelphia	10,718	.....	.....	.....	.....	.....	2	.....	.....	.....
Norwood	24,966	2	.....	.....	.....	.....	4	.....	.....	.....
Piqua	15,041	0	.....	.....	.....	.....	.....	.....	.....	.....
Sandusky	22,897	5	.....	.....	.....	.....	.....	.....	.....	.....
Springfield	60,840	16	4	.....	1	.....	11	1	3	1
Steubenville	28,508	14	.....	.....	1	.....	.....	.....	.....	.....
Toledo	243,109	72	40	2	3	.....	19	.....	2	8
Zanesville	29,569	14	2	.....	.....	.....	.....	.....	.....	.....
Oklahoma:										
Muskogee	30,277	.....	1	.....	.....	.....	.....	.....	.....	.....
Oklahoma City	91,258	17	2	.....	.....	.....	3	.....	.....	1
Tulsa	72,075	.....	6	.....	.....	.....	2	.....	.....	.....
Oregon:										
Portland	258,288	48	12	2	71	.....	9	.....	7	2
Salem	17,679	9	.....	.....	1	.....	.....	.....	.....	.....
Pennsylvania:										
Philadelphia	1,823,158	502	86	4	27	.....	234	4	71	46
Rhode Island:										
Cranston	29,407	8	1	.....	.....	.....	3	.....	.....	.....
East Providence (town)	21,793	.....	3	.....	3	.....	1	.....	.....	.....
Newport	30,255	4	3	.....	.....	.....	3	.....	.....	.....
Pawtucket	64,248	28	3	1	.....	.....	3	.....	.....	1
Providence	237,595	78	4	1	22	1	6	.....	.....	4

[1] Pulmonary tuberculosis only.

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population, Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
South Carolina:										
Charleston	67,957	24	6		1				1	1
Columbia	37,524				5					
Spartanburg	22,638	8			1		1			1
South Dakota:										
Sioux Falls	25,176	6	1		1		5			
Tennessee:										
Knoxville	77,819		1		1		3		2	2
Memphis	162,351	44	12		4		2		9	7
Nashville	118,342	49					2			3
Texas:										
Beaumont	40,422		1		1					
Corpus Christi	10,522	4								
Dallas	158,976	38	9		2		2		10	2
El Paso	77,543	46	3				3			13
Galveston	44,255	11	8	1						1
Temple	11,033		1							
Waco	38,500	9	2							
Utah:										
Salt Lake City	118,110	36	1		500	3	9	1	4	3
Vermont:										
Barre	10,008						1			
Burlington	22,779	2					5			
Rutland	14,954	6			1					
Virginia:										
Alexandria	18,060	4			1					
Danville	21,539		2							
Lynchburg	29,956	7			1					2
Norfolk	115,777		3		26		5		4	
Petersburg	31,002	15							2	1
Richmond	171,667	67	15	1	4		4		15	2
Roanoke	50,842	22	5		40	1	3			1
Washington:										
Bellingham	25,570		1		2		1			
Seattle	315,652		8				10			
Spokane	101,437		3		10		2			
Tacoma	96,965		3		3		7			
Vancouver	12,637		2				7			
Yakima	18,539						4			
West Virginia:										
Bluefield	15,282		2		15		6			
Charleston	39,608	15	1		100		2		1	
Fairmont	17,851		4				1			
Huntington	50,177	12	2				4			1
Martinsburg	12,515		2							
Morgantown	12,127	0	1		5		1			
Moundsville	10,669	3			2		1			
Parkersburg	20,050	2	1						3	
Wheeling	54,322	25	9		29		4			
Wisconsin:										
Appleton	19,561						1			
Beloit	21,284	5	2				1		1	2
Eau Claire	20,880		1		1		1			
Fond du Lac	23,427	8	7							
Green Bay	31,017	11	1		1		1			1
Janesville	18,293	9			1					
Kenosha	40,472	4	3				5			
La Crosse	30,363	6					2			
Madison	38,378	5			1		3		1	
Milwaukee	457,147		52		7		64		7	
Oshkosh	33,162	7					1			
Racine	58,593	21	30	3			10			1
Sheboygan	30,955		2				2		4	
Superior	39,624	11	5		3		2		1	1
Wausau	18,661	7							3	2
Wyoming:										
Cheyenne	13,829	2								

FOREIGN AND INSULAR.

FURTHER RELATIVE TO YELLOW FEVER ON VESSEL.

Steamship "Savoia," at Habana, Cuba, from Vera Cruz.

The steamship *Savoia*, from Vera Cruz, Mexico, arrived at Habana, Cuba, January 10, 1921,[1] three and one-half days from Vera Cruz, with three cases of sickness on board. The *Savoia* carried no passengers. The vessel had remained at Vera Cruz 18 days and during at least four days of her stay lay alongside of wharf. The cases of sickness developed the day before arrival at Habana. Two of the cases were confirmed as yellow fever at Habana January 11, 1921. On January 14 two other cases developed on board. These were confirmed as yellow fever January 15, 1921. The *Savoia* was fumigated at Vera Cruz January 6 and left the same day for Habana.

The *Savoia* left Cadiz, Spain, November 2, 1920, for Vera Cruz via West Indian ports, Porto Rico, and Habana. The present destination of the vessel from Habana is Santiago de Cuba; ultimate destination, Europe via West Indian ports.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Dec. 1-10, 1920.[1]		Remaining under treatment Dec. 10, 1920.	Disease.	Dec. 1-10, 1920.[1]		Remaining under treatment Dec. 10, 1920.
	New cases.	Deaths.			New cases.	Deaths.	
Cerebrospinal meningitis	.....	.....	1	Malaria	113	2	[2] 116
Chicken pox	2	.....	7	Measles	14	.....	23
Diphtheria	6	2	6	Scarlet fever	.....	.....	4
Leprosy	.....	.....	12	Typhoid fever	38	7	[3] 56

[1] Public Health Reports, Jan. 14, 1921, p. 61.
[2] From the interior, 23; from abroad, 2.
[3] From the interior, 30; from abroad, 2.

JAMAICA.

Infectious Disease—(Alastrim or Kaffir Pox).

During the week ended January 1, 1921, 131 new cases of alastrim or Kaffir pox were reported in the Island of Jamaica.

[1] Previously reported at Habana January 12, 1921. Public Health Reports, Jan. 21, 1921, p. 102.

PERU.

Yellow Fever—Lambayeque.

An outbreak of yellow fever was reported January 22, 1921, in the Department of Lambayeque, Peru.

ROUMANIA.

Measures Against Arrivals from Constantinople.

According to information dated January 4, 1921, vessels having touched at Constantinople, Turkey, will be allowed to enter Roumanian waters only at the port of Constanza as long as plague continues to be reported in Constantinople.

TUNIS.

Plague—Zarzis.

Ten cases of plague were reported January 15, 1921, at Zarzis, in the military territory of South Tunis.

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

Reports Received During Week Ended Jan. 28, 1921.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Canton	Nov. 1-30	7	6	
Chosen (Korea)				Aug. 1-Dec. 2, 1920: Cases, 24,017; deaths, 13,329.
India:				
Calcutta	Nov. 28-Dec. 4	40	34	
Rangoon	do	4	3	
Indo-China				July 1-31, 1920: Cases, 136; deaths, 98.
Japan:				
Taiwan Island	Dec. 1-10	116	30	
Philippine Islands:				
Provinces—				
Cagayan	Oct. 10-16	1	1	
Siam:				
Bangkok	Oct. 24-30	1		

PLAGUE.

Brazil:				
Porto Alegre	Dec. 12-18		1	
Ceylon:				
Colombo	Nov. 28-Dec. 4	15	11	
China:				
Hongkong	Dec. 5-11	2	2	Present in surrounding territory.
Egypt:				
Port Said	Oct. 22-28	1	1	
India				Nov. 21-27, 1920: Cases, 1,843; deaths, 1,325.
Madras	Dec. 5-11	1	1	
Madras Presidency	do	984	623	
Rangoon	Nov. 28-Dec. 4	5	3	
Indo-China				July 1-31, 1920: Cases, 98; deaths, 74.
Peru:				
Callao-Lima	Oct. 1-Nov. 30		3	
Tunis:				
Zarzis	Jan. 15	10		In military territory, South Tunis.

[1] From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Jan. 28, 1921—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Bolivia:				
La Paz	Oct. 1-Nov. 30	11	3	
Canada:				
Alberta—				
Calgary	Jan. 2-8	1		
Ontario—				
Hamilton	Jan. 9-15	8		
Montreal	Jan. 2-8	2		
North Bay	do	1		
Ottawa	Jan. 2-15	145		
Sault Ste. Marie	Jan. 2-8			A few cases.
Toronto	do	2		
Saskatchewan—				
Moose Jaw	do	1		
Regina	do	1		
Ceylon:				
Colombo	Nov. 28-Dec. 4	5	2	
China:				
Amoy	Nov. 21-Dec. 4		3	
Chungking	Nov. 14-27			Present.
Nanking	Dec. 5-11			Do.
Colombia:				
Santa Marta	Dec. 26-Jan. 1			Do.
Cuba:				
Antilla	Jan. 2-8	8		For port of Preston.
Cienfuegos	Dec. 26-Jan. 8			Stated to be present in virulent form in Province of Camaguey.
Nuevitas	Dec. 13-19	1		
Do	Jan. 3-9	1		
Danzig	Dec. 12-18	1		
Dominican Republic				Dec. 19-25, 1920: One case.
France:				
St. Etienne	Dec. 3-15	2	1	
Greece:				
Saloniki	Nov. 15-Dec. 5	13	2	In surrounding country, in 5 localities: Cases, 21; deaths, 2.
India:				
Madras	Dec. 5-11	2	1	
Rangoon	Nov. 28-Dec. 4	1		
Indo-China				July 1-31, 1920: Cases, 107; deaths, 24.
Italy:				
Palermo	Oct. 30-Nov. 12	93	30	
Manchuria:				
Dairen	Nov. 16-Dec. 6	7	2	
Mukden	Dec. 12-18			Prevalent.
Russia:				
Siberia—				
Vladivostok	Oct. 1-31	1		
Spain:				
Barcelona	Dec. 16-22		2	
Valencia	Dec. 19-25	1		
Tunis:				
Tunis	Dec. 14-28		13	

TYPHUS FEVER.

Chile:				
Coquimbo	Dec. 1-7		1	
Egypt:				
Alexandria	Dec. 10-16	1	1	
Cairo	Dec. 22-28	2	2	
Great Britain:				
Belfast	Dec. 19-25	10		
Greece:				
Drama	Nov. 22-28	1		
Saloniki	Nov. 28-Dec. 12	12	1	
Japan:				
Nagasaki	Nov. 28-Dec. 19	6		
Manchuria:				
Harbin	Nov. 22-28	1		On Eastern Chinese Railway.
Manchuria Station	do	2		Do.
Mexico:				
San Luis Potosi	Dec. 26-31			Present.
Turkey:				
Constantinople	Dec. 19-25	8	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Jan. 28, 1921—Continued.

YELLOW FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Vera Cruz	Jan. 10-16	1		
Peru:				
Department—				
Lambayeque	Jan. 22			Outbreak.
On vessel:				
S. S. Savoia	Jan. 15	2		At Habana, from Vera Cruz. Two of the three cases previously reported have been confirmed.

Reports Received from Jan. 1 to 21, 1921.[2]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Changsha	Nov. 29			Present.
Chungking	do			Do.
Chosen (Korea)				Nov. 19-25, 1920: Deaths, 22.
India				Sept. 26-Oct. 9, 1920: Deaths, 2,672.
Calcutta	Oct. 31-Nov. 27	124	113	
Japan:				
Taiwan Island (Formosa)	Nov. 11-30	77	58	
Java:				
West Java				Oct. 29-Nov. 11, 1920: Cases, 2; deaths, 1.
Bandoeng	Oct. 29-Nov. 11	2	1	
Philippine Islands:				
Manila	Nov. 7-Dec. 4	5		
Provinces				Jan. 10-Oct. 30, 1920: Cases, 80; deaths, 51.
Cagayan	Oct. 3-9	5	3	
Samar	Aug. 1-7	1	1	
Poland:				
Eastern Frontier—				
Bialystok	Dec. 16			Present.
Grodno	do			Do.
Olitza	do			Do.
Posen	do			Present in Russian prison camp.
Stralkowo	do			Present.
Strelno	do	1	1	
Warsaw	do	5		
Siam:				
Bangkok	Oct. 9-Nov. 13	4		

PLAGUE.

Algeria:				
Algiers	Nov. 1-30		1	
Azores:				
St. Michaels				Total, Oct. 1-Dec. 10, 1920: Cases, 149; deaths, 49. In vicinity of Ponta Delgada.
Brazil:				
Bahia	Oct. 31-Nov. 13	4		
Porto Alegre	Nov. 14-Dec. 11		3	
Pernambuco	Oct. 18-Nov. 14	9	1	
British East Africa				Total for Kenya Colony, Nov. 8, 1920: Cases, 1,067.
Kisumu	Oct. 31-Nov. 6			Present.
Mombasa	do	1	1	
Nairobi	Oct. 31-Nov. 13	6	2	
Uganda	May 1-June 30	111	103	Entire Protectorate.
Do	July 1-Nov. 5	259	63	Do.

[2] From medical officers of the Public Health Service, American consuls, and other sources. For reports received from June 26 to Dec. 31, 1920, see Public Health Reports for Dec. 31, 1920. The tables of epidemic diseases are terminated semiannually and new tables begun.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Jan. 1 to 21, 1921—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo	Nov. 7-27	20	17	
Chile:				
Antofagasta	Nov. 24-Dec. 5	6	2	
China:				
Hongkong	Nov. 7-20	3	3	
Ecuador:				
Guayaquil	Nov. 16-30	18	7	
Egypt				Jan. 1-Nov. 25, 1920: Cases, 456; deaths, 264.
Cities—				
Suez	Nov. 18-24	6	3	
Provinces—				
Assiout	Nov. 24	3	2	
France:				
Marseille	June-Aug. 31	58	20	
Paris	June-Oct. 15	50	11	In suburbs, June-Nov. 2, 1920: Cases, 38; deaths, 19.
Great Britain:				
Dublin				1 case reported Dec. 15, 1920; date of occurrence, Oct. 18, 1920.
Liverpool				Plague-infected rat found, period Nov. 28-Dec. 11, 1920.
Greece:				
Kavala	Oct. 25-Nov. 7	2		
India				Oct. 24-Nov. 20, 1920: Cases, 9,589; deaths, 6,333.
Madras Presidency	Nov. 14-Dec. 4	1,317	885	
Rangoon	Oct. 31-Nov. 27	13	12	
Mesopotamia:				
Bagdad	Oct. 1-31	25	7	
Mexico:				
Carbonera	Dec. 5-20	3	1	State of San Luis Potosi.
Do	Dec. 26-Jan. 1	2		
Cerritos	Dec. 5-20	7	8	Do.
Do	Dec. 26-Jan. 1	1		
Russia:				
Batum	Nov. 24-Dec. 3	38		Epidemic outbreak.
Straits Settlements:				
Singapore	Oct. 31-Nov. 6	1	1	
Turkey:				
Constantinople	Nov. 21-27	1	2	

SMALLPOX.

Austria				Aug. 29-Nov. 6, 1920: Cases, 62.
Brazil:				
Bahia	Oct. 31-Nov. 13	3		
Pernambuco	Oct. 18-Nov. 14	77	1	
Rio de Janeiro	Oct. 24-Dec. 11	93	23	
British East Africa:				
Uganda				May 1-June 30, 1920: Cases, 272.
Bulgaria:				
Sofia	Nov. 7-13	2		
Canada:				
Alberta—				
Calgary	Dec. 12-18	2		
British Columbia—				
Vancouver	Dec. 5-11	1		
New Brunswick—				
Restigouche County	Dec. 12-18	1		
Ontario—				
Hamilton	Dec. 19-31	9		
Do	Jan. 2-8	10		
Niagara Falls	Dec. 12-18	1		
North Bay	Dec. 12-25	4		
Ottawa	Dec. 12-25	75	1	
Do	Dec. 26-Jan. 1	64		
Toronto	Dec. 12-25	7		
Do	Dec. 26-Jan. 1	10		
Saskatchewan—				
Moose Jaw	Dec. 19—25	1		
Regina	Dec. 12-25	11		
Saskatoon	Dec. 16-22	20		
Ceylon:				
Colombo	Nov. 21-27	3	3	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Jan. 1 to 21, 1921—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy	Nov. 7-20		2	
Chungking	Nov. 7-13			Present.
Foochow	Nov. 7-27			Do.
Nanking	Nov. 14-Dec. 4			Do.
Tientsin	Nov. 14-Dec. 4	2		
Tsinanfu	Oct. 31-Nov. 12	20		Statistics of Shantung Christian Hospital.
Colombia:				
Santa Marta	Dec. 5-25			Present.
Cuba:				
Antilla	Dec. 7-27	10		For port of Preston.
Habana	Dec. 31-Jan. 5	5		
Nuevitas	Dec. 6-12	1		From Lugareno, a small station on railway, 16 miles distant.
Santiago	Nov. 20-Dec. 10	26		
Czechoslovakia				July 11-Aug. 14, 1920: Cases, 141; deaths, 29.
Danzig	Dec. 5-11	1		
Dominican Republic				Nov. 15-Dec. 7, 1920: Cases, 8; occurring in 4 localities.
Ecuador:				
Guayaquil	Nov. 16-30	7	1	
Egypt:				
Cairo	Oct. 1-7	1		
France:				
Paris	Nov. 1-10	1	1	
Rouen	Nov. 21-Dec. 11	6	2	
Germany				Aug. 29-Nov. 6, 1920: Cases, 40.
Great Britain:				
Glasgow	Dec. 5-25	11	2	
Haiti:				
Port au Prince	Sept. 22-Dec. 2	486	2	In 8 interior towns, 20 cases. In 1 locality, 18 cases. In country district, vicinity of Port au Prince, cases numerous.
India				Sept. 26-Oct. 9, 1920. Deaths, 250.
Bombay	Nov. 7-13	1	1	
Madras	Nov. 14-Dec. 4	5	3	
Rangoon	Nov. 21-27	1		
Java:				
West Java				Nov. 12-18, 1920: Cases, 37; deaths, 2.
Batavia	Nov. 12-18	4	1	
Jugo-Slavia	July 25-Aug. 28	128	42	Feb. 7-13, 1920. Cases, 122; deaths, 27.
Madeira:				
Funchal	Dec. 5-18		2	
Mexico:				
Chihuahua	Dec. 6-26	11	3	
Do	Dec. 27-Jan. 2		3	
Federal District	Nov. 14-27	8		Including Mexico City.
Portugal:				
Lisbon	Nov. 28-Dec. 4		1	
Portuguese East Africa:				
Lourenco Marques	Oct. 24-Nov. 13	9		
Quelimane	do	3		
Russia:				
Reval	Oct. 1-31	3		
Riga	Nov. 1-7	5		
Spain:				
Barcelona	Nov. 18-Dec. 15		8	
Corunna	Dec. 12-18		1	
Valencia	Dec. 5-18	2		
Syria:				
Aleppo	Nov. 14-Dec. 4			Present in orphanage and French camps.
Tunis:				
Tunis	Nov. 30-Dec. 13	10	5	
Turkey:				
Constantinople	Nov. 21-Dec. 11	4		
Union of South Africa:				
Johannesburg	Oct. 1-31	1		
On vessels:				
S. S. Alfonso XIII	Dec. 27	1		At Habana, Cuba, from ports in northern Spain.
S. S. Cadiz	Jan. 5	1		At Habana, Cuba, from Mediterranean ports.
S. S. Ohioan	Jan. 4	1		At San Pedro, Calif., from New York, via Balboa, Canal Zone.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Jan. 1 to 21, 1921—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Belgium:				
Ghent	Dec. 12-18	5		
Chile:				
Concepcion	Nov. 1-22		17	
Valparaiso	Oct. 25-Nov. 27		13	
Czechoslovakia				July 11-Aug. 28, 1920: Cases, 138; deaths, 18.
Danzig	Dec. 20	1		In emigrant from Brest Litovsk with two weeks' stay at Warsaw.
Egypt:				
Alexandria	Nov. 19-Dec. 9	8	5	
Cairo	Oct. 1-21	19	9	
Germany				Sept. 12-Nov. 13, 1920: Cases, 69.
Great Britain:				
Belfast	Dec. 5-11	3		
Dublin	Nov. 28-Dec. 18	4	3	
Greece:				
Saloniki	Oct. 25-Nov. 7	6	3	
Serres	Nov. 8-14	1		
Hungary				Aug. 3-Oct. 3, 1920: Cases, 9.
Italy				Typhus fever was erroneously reported at Catania and Trieste in Public Health Reports, July 23 and 30, 1920, and in succeeding numbers.
Japan:				
Nagasaki	Nov. 15-21	2		
Jugo-Slavia	July 25-Aug. 28	27	5	Feb. 7-13, 1920: Cases, 84; deaths, 2.
Mexico:				
Federal District	Nov. 14-27	35		Including Mexico City.
San Luis Potosi	Dec. 5-25			Present.
Poland:				
Warsaw	Dec. 16	8		
Portugal:				
Oporto	Nov. 28-Dec. 4	1		
Russia:				
Reval	Sept. 1-Oct. 31	186		
Riga	Nov. 1-7	17		
Turkey:				
Constantinople	Nov. 21-Dec. 11	17		

YELLOW FEVER.

Mexico:				
Orizaba	Dec. 5-18	2	1	
Papantla	do	8	2	
Tampico	Dec. 12-18	1	1	
Tuxpam	Dec. 5-18	9	4	
Do	Dec. 26-Jan. 1	5	1	
Vera Cruz	Dec. 5-26	8	3	
Do	Dec. 26-Jan. 1	1		
Zamora	Dec. 12-18	1	1	Also called Gutierrez. State of Vera Cruz.
On vessel:				
S. S. Savoia	Jan. 12	3		At Habana, Cuba, from Vera Cruz, Mexico.