

PUBLIC HEALTH REPORTS

VOL. XXVII.

JUNE 28, 1912.

No. 26.

NOTES ON MOSQUITO ERADICATION.

By GEORGE W. MCCOY,¹ Passed Assistant Surgeon, Public Health and Marine-Hospital Service.

These notes are based upon the experience of a rather extensive antimosquito campaign undertaken in the city of Honolulu, Hawaii. The work was directed particularly against mosquitoes of the genus *Stegomyia*, or day mosquitoes, but in addition an effort was made to reduce as far as possible the number of night mosquitoes (*Culex*).

There seems to be no doubt that mosquitoes were unknown in the Hawaiian Islands prior to 1826, at which time they were introduced by a whaling vessel. There are but three species of the insects reported from the islands: *Stegomyia calopus*, *Stegomyia scutellaris*, and *Culex pipiens*.

Antimosquito work in Honolulu presented serious difficulties on account of certain local conditions. These were, first, the very large area covered by the city, 45,000 acres, in proportion to the population, 50,000; second, the fact that scattered tracts of land constituting about one-third of the area of the city were given over to the growing of rice and taro, both of which require the constant, or almost constant, flooding of the land; third, the enormous number of water-holding trees and plants.

The work used as the basis of these notes had to do only with the seeking out and abolishing of breeding places. The destruction of adult mosquitoes did not form a part of the work.

DISTRIBUTION OF DIFFERENT SPECIES OF MOSQUITOES.

Mosquitoes of the genus *Culex* were found breeding in all parts of the city, and, true to their habits elsewhere, in collections of water of every description. Swamps, puddles, house gutters, catch basins in the storm-sewer system, rice and taro fields, tin cans, bottles, holes in trees, water-holding plants, and toilet fixtures all furnished specimens of the *Culex* larvæ. Both species of *Stegomyia* were found in all sections of the city. The following tabulation of the breeding places of *Stegomyia* larvæ, collected early in the campaign, was pre-

¹ Detailed as sanitary adviser to the governor of Hawaii.

pared by Passed Asst. Surg. Edward R. Marshall, who made the identifications:

Location.	Stego- myia calopus.	Stego- myia scu- tellaris.	Location.	Stego- myia calopus.	Stego- myia scu- tellaris.
Storm sewer catch basin.....	1	2	Hole in tree.....	2	15
Watering trough.....	3		Barrel.....	6	5
Street gutter.....	2	8	Bath tub.....		1
House gutter.....	83	72	Cesspool.....		2
Hole in rock.....	3		Bucket.....		2
Flower pot.....	1	1	Tin dipper.....		1
Tin can.....	8	6	Crock.....		1
Iron pot.....	1		Keg hanging on tree.....		1
Bottle.....	1		Swamps.....		1
Tin pan.....	1		Puddle.....		1
Water-holding plants.....	2	6	Hollow stump.....		1
Tank.....	1				

This table shows a disproportionately large number of house gutters furnishing larvæ, as at the time the identifications were made we were paying particular attention to these breeding places.

ANTILARVÆ AGENTS AND PROCEDURES EMPLOYED.

Coal oil.—Both crude and refined petroleum were employed. The crude oil available was that obtained from the oil fields of California. It was found to have a very limited field of usefulness on account of the lack of any tendency to spread over the surface of the water. Even when sprayed on a pool the oil was apt to remain in the form of drops. On many occasions living larvæ were found in collections of water that seemed to be satisfactorily covered by crude oil. Refined petroleum gave much better results, as it distributed itself quite well where the water was free from vegetation. In general oil was employed only on temporary collections of water and upon such permanent collections as it was found impracticable to deal with in any other manner.

Larvicide.—This agent was prepared in large quantities and used as a substitute for petroleum. The fluid was made by emulsifying crude carbolic acid with rosin and caustic soda. It was not observed that it presented any advantages over the refined petroleum except that perhaps it was a little more prompt in destroying larvæ and was a trifle cheaper.

Draining and filling.—Many acres of swampy land were drained, while others were filled. These are, of course, the ideal ways to abolish mosquito-breeding places, and should always be employed where circumstances permit.

Larvæ-destroying fish.—In 1905 Dr. David Starr Jordan, of Stanford University, Palo Alto, Cal., advised the stocking of the waters of Hawaii with larvæ-destroying fish. As a result of this advice the Territorial government brought about 400 of these fish (*Gambusia affinis*, *Fundulus grandis*, *Mollienesia latipinna*) from Texas. They have multiplied rapidly and are now found in almost all streams and ponds in the Territory. It is not too much to say that these little fish have proven more valuable than any other single agent in keeping the mosquitoes in the islands within bounds. It was astonishing how promptly they eradicated the larvæ from any collection of water

in which they were placed, provided they could gain access to all parts of it. In many cases it was necessary to clear the vegetation out of the pond or other large collection of water in order to permit the fish to get about freely. In other cases, where the water was shallow or in pockets, the flooding of the area so that the water was deep enough to permit the fish to reach every part proved sufficient to clear the place of larvæ. Oil or laticide is fatal to fish and should not be placed in any collection of water that has fish in it or that is to be stocked with them. Fish have been used with great satisfaction in tanks, barrels, watering troughs, etc.

Flooding with salt water.—There were a few low places so situated that it was possible to lead sea water into them, converting a fresh-water pool into a brackish one in which the mosquitoes found in Hawaii do not breed.

METHOD OF TREATING DIFFERENT BREEDING PLACES.

Tin cans, bottles, etc.—As Honolulu does not have a system of free garbage collection, every vacant lot and many of the occupied ones were liberally sprinkled with tin cans, bottles, fruit jars, old kerosene cans, etc. These were buried or collected and hauled to a garbage dump. It is necessary to cover the dump with earth or to put the cans, etc., in salt water or one may merely transfer a nuisance from one place to another.

Pools and swamps.—These were treated by filling, draining, oiling, or the introduction of larvæ-destroying fish. When necessary the vegetation was removed to permit oil to spread or to allow the fish to reach every part. This was sometimes a task requiring much work.

There were a good many cases where swampy land could be converted from a breeding place into one quite free from mosquito larvæ by the process of extensive ditching. The earth that was taken out to make the ditches was piled in oblong mounds, changing a place that had previously been swamp into one where the earth and water were well defined and separate, thus permitting the fish to have access to every part where larvæ could exist.

As a large part of Honolulu is practically at sea level, many swamps and ponds that appear in every respect to be ideal breeding places contain no larvæ on account of the water being brackish. As it was important that efforts and funds should not be exhausted on work that was needless from an antimosquito point of view, it was made an invariable rule that, no matter how favorable a locality looked as a breeding place, no work was done on it if repeated inspections failed to show the presence of larvæ.

Irrigation of sugar cane.—The irrigation of sugar cane is carried on in such a way that the only place where mosquitoes breed in a cane field is in the ditches. The most feasible way of dealing with them where the grade is not sufficient to keep the water in motion is to stock the ditches with fish.

Taro patches.—Taro (*Colocasia antiquorum*), a tuber from which "poi," the principal food of the Hawaiians is made, grows under water. The depth of the water is from 2 to 6 inches, ample to permit fish to get about freely. The stocking of the patches with fish is the only practicable means of dealing with taro cultivation. The edges of the pond must be kept free from grass and weeds. Taro patches

that are in use give comparatively little trouble, but often those that are abandoned have water standing in pockets and are apt to be overgrown with alien vegetation. Filling or draining is the best treatment for these.

Rice fields.—Rice cultivation is one of the important industries of Honolulu. As it is ordinarily carried on it results in large crops of mosquitoes at certain periods. It is customary during the time that the field is being prepared for plowing and while the plowing is in progress to keep the land partially covered with water, which, of course, affords ideal mosquito-propagating conditions. The only solution we have found is to require the water to be kept deep enough to permit fish to gain access to every part. After the rice is planted ample water is kept on the land.

Pasture lands.—The many acres of pasture land in the city have given much trouble. The hoofprints of animals hold water and form excellent breeding places. Where draining is impracticable there is no way of dealing with these except by oiling or treating with larvicide. Even this is not satisfactory, as the little pools are easily overlooked and new ones are made hourly.

Banana plantations.—When banana shoots are started it is customary to have the little mound of earth in which the shoot is placed surrounded by a moat of water about 6 inches deep, 8 or 10 inches wide, and 3 or 4 feet in diameter. These moats form ideal breeding places. The only practicable way to treat them is to throw in enough earth to change the contents into mud.

Water-holding plants.—Among the plants that hold water bananas and several species of lilies may be mentioned. Whether mosquitoes breed often enough in the former to justify their destruction except at times of emergency is a much-disputed point. The writer believes that the removal of banana plants will always aid materially in mosquito eradication. Lilies and certain other plants that are common in Honolulu very often have a space between the stalk and the base of the leaf in which larvæ are found. In one case 25 out of 27 spider lilies on one premises had larvæ in them. The only way of dealing with water-holding plants permanently is to cut them down and grub out the roots. It was observed that when water-holding pockets in plants were filled with dust, dirt, leaves, etc., the water evaporated rapidly, and consequently there was no danger of mosquitoes breeding in them. In a few cases we have treated water-holding plants by putting sawdust in the pockets and have found that this served very well to facilitate the drying. This plan is not recommended, as it does not permanently abolish breeding places, but it may be used where people are unwilling to sacrifice the plants.

Sewer system.—Honolulu has "separate" sewer systems, and mosquito-breeding places have been found in each of the systems. The sanitary sewers have perforated iron manhole covers. Under these covers drip pans are suspended to catch street dirt that would otherwise fall into the sewer. For a time these drip pans were oiled, but it was finally concluded that probably they served no useful purpose, and the pans were removed.

The storm sewers had their chief source of trouble in the catch basins which receive the street drainage. These are practically brick and cement boxes, about 3 feet square and from 3 to 5 feet deep.

About a foot from the bottom is an outlet pipe communicating with the sewer main. As a result of this arrangement of the outlet pipe these catch basins generally hold about a foot of water, which forms one of the most important mosquito-breeding places. Several varieties of drip cans were tried for the purpose of keeping the water in the basin constantly covered with oil. It was found, however, to be more satisfactory and more economical to have the catch basins oiled by hand about once a week, 50 cubic centimeters of refined petroleum being placed in each basin. Partial blocking of the outlet pipe running from the catch basin to the main sewer frequently caused the water to stand in this pipe. The only way to deal with these collections was to have the catch basin emptied and the obstruction removed. This failing, oil could be applied to the water in the outlet pipe.

Other difficulties with the storm sewers were the sagging of sections or partial damming, either condition allowing water to stand. Cleaning and structural changes such as would be required to remedy these troubles did not come within our province. The keeping of these collections of water in the storm sewers oiled was not regarded as feasible.

Roof gutters.—The most difficult and at the same time one of the most important parts of the work of abolishing breeding places was in connection with house gutters that held water. These very frequently contained larvæ. Oiling and cleaning are but temporary measures. The remedy advised was to remove the gutters whenever practicable. Many of them sag, leak, or otherwise fail to fulfill the functions for which they were intended. A board of architects appointed under the authority of the Territorial board of health to investigate this subject recommended that gutters have a fall of at least 1 inch in 16 feet and that down spouts be provided along every 16 feet of the length of the gutter. My own observation has led me to believe that the fall should be greater than this.

Puncturing gutters was practiced to some extent. This is satisfactory only if holes not less than an inch in diameter are made along the whole water-containing part of the gutter. Holes made with large nails are useless, as they soon become clogged. Screening of gutters is not to be recommended as it is expensive and often fails to keep mosquitoes out. In a good many cases nothing could be done with gutters but to see that water was not allowed to stand in them.

Houses in the Tropics should be constructed with eaves that overhang enough to obviate the necessity for gutters.

Water barrels.—The rule was to oil any barrels in which larvæ were found. This usually induced the householder to keep them screened.

Cesspools.—Cesspools with defective covers form excellent breeding places. The remedy is a mosquito-proof cover (usually wood covered with earth) with a screened vent pipe. As a temporary measure oiling is sufficient. Overflowing cesspools cause a great deal of trouble. The remedy is to have the cesspool emptied.

Cavities in trees.—Holes in trees were frequently found to be breeding places. A very common tree in Honolulu, the kiawe or algaroba (*Prosopis juliflora*), is likely to have a cavity where large branches are given off, at forks, etc. To remedy these conditions the cavities

were filled with broken rock or earth and a covering of cement placed over the filling.

Throughout the work one thing that impressed us was the fact that the majority of collections of water on the ground were man made. For example: Many small swamps were due to an overflowing or leaky cesspool; pools in streets were often due to broken water pipes; a swampy yard was often caused by the waste water from a wash-house. Breeding places due to seepage from natural causes were rare.

TREATMENT OF VESSELS ARRIVING AT NEW YORK FROM WEST INDIAN AND SOUTH AMERICAN PORTS.

The health officer of the port of New York has issued the following special order to boarding officers at that port regarding the treatment of vessels coming from ports in the West Indies and South America:

SPECIAL ORDER TO BOARDING OFFICERS RELATIVE TO BUBONIC PLAGUE.

All passengers and members of crews on vessels entering this port from Porto Rican ports, Haitian ports, and ports in the West Indies and in South America to the southerly of Porto Rico, shall be individually examined with the utmost care for symptoms of bubonic plague.

All hides, including animal skins of every character, carried as cargo on such vessels shall be subjected to disinfection in accordance with general order No. 30, if practicable, on board the vessel at quarantine.

All holds of vessels entering this port from ports on the island of Porto Rico, the island of Trinidad and the port of La Guaira, Venezuela, shall be subjected to disinfection, after the discharge of all cargo therefrom, in this port by a representative of this department or under the direction and supervision of this department. For this purpose the provisions of general order No. 29 are hereby extended with respect to such vessels so as to provide for disinfection after every voyage. If the existence on board of perishable merchandise, liable to serious damage by the use of disinfectants, shall make the fumigation of hides at quarantine impracticable, the master of such vessel shall, before being admitted to pratique, sign a written agreement to submit such hides to fumigation at the dock, after the discharge of such parts of his cargo as may be liable to injury from the use of fumigants, and no vessel from ports on the island of Porto Rico, the island of Trinidad, and the port of La Guaira, Venezuela, shall be admitted to pratique until the master of such vessel shall have signed a written agreement to submit the hold of his vessel to fumigation after the discharge of his cargo, and to notify this department of the readiness of his vessel for such disinfection.

This order will remain in effect until the amelioration of plague conditions at the ports mentioned, and adjoining ports shall justify its modification.

JOSEPH J. O'CONNELL,
Health Officer, Port of New York.

June 20, 1912.

UNITED STATES.

MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HYGIENE.

[Adopted since July 1, 1911.]

EAST PROVIDENCE (TOWN), R. I.

LODGING AND TENEMENT HOUSES AND BUILDINGS LEASED AS DWELLINGS—INSPECTION, CARE, AND MAINTENANCE.

SEC. 12. Every owner or keeper of a lodging house and every owner, lessee, and occupant of a tenement house or other building leased for a dwelling shall thoroughly cleanse all and every part of such house or building and shall also thoroughly cleanse every yard, court, passage, area, or alley connected with or belonging to the same to the satisfaction of the town council whenever, in the opinion of said town council, it shall be necessary for the health of the occupants or the public health.

SEC. 13. No vault, cellar, or underground room shall be let or occupied separately as a dwelling, nor in a tenement or lodging house as a place of lodging or sleeping. A cellar shall mean any basement or lower story of any building or house of which one-half or more of the height from the floor to the ceiling is below the level of the ground adjoining.

SEC. 14. No owner of any building or part thereof shall lease or let or hire out the same or any part thereof to be occupied by any person, or allow the same to be occupied if said building or any part thereof shall be inadequate or defective in respect to strength, protection, ventilation, light, sewerage, or to any other usual, proper, or necessary provision or precaution for the security of life and health, nor unless said building and every part thereof shall be in all respects in a condition of cleanliness or wholesomeness.

SEC. 15. The town council may order the vacation of any building when satisfied that it is unfit for a dwelling, because infected or because in any way dangerous to the health of the occupants. A notice of such vacation must be served on the occupants of such building, and also served on the owner, agent, or lessee. And such notices shall be served by any police constable of the town. And if the person or persons so notified, or any of them, shall neglect or refuse to remove from and quit such building within the time specified in the notice the health officer is hereby authorized and empowered forcibly to remove them when so ordered by the town council.

SEC. 16. For purposes of sanitary inspection, the health officer, and every person authorized by him, shall have free access to any part of every building and premises within the town.

[From ch. 4 of an ordinance adopted Aug. 2, 1911.]

ELGIN, ILL.

MEDICINE SAMPLES—DISTRIBUTION OF.

SECTION 1. No person shall be permitted to give away, deposit, or otherwise distribute any sample package, parcel, box, or other quantity of any nostrum, proprietary medicine, or other material of an alleged medicinal character or claiming to be a curative agency by means of depositing or leaving same in any hallway, private area, or yard, or on any street, alley, or public ground in the city.

SEC. 2. Any person violating any of the provisions of this section shall be fined not less than \$5 nor more than \$50 for each offense.

[Ordinance adopted Sept. 30, 1911.]

OIL CITY, PA.

NUISANCES.

RULE 15. No bone or horse boiling establishment shall be maintained or operated within the limits of the city.

RULE 16. It shall be unlawful for any person, persons, or corporation to construct or use any slaughterhouse or to slaughter animals of any kind in any building or any place within the limits of the city.

RULE 17. The keeping of pigs, hogs, or swine shall not be permitted within the limits of the city.

RULE 18. It shall be unlawful to keep live poultry of any kind or any other kind of live stock in any cellar or basement or under any house or building within the limits of the city.

RULE 19. It shall be unlawful to keep or kill live stock or poultry of any kind in any cellar or basement or under any building used for a market place, nor shall live stock or poultry be kept or killed in close proximity to any market without written permission of the board of health, which permission may be revoked upon recommendation of the health officer for good and sufficient cause.

RULE 20. The owner or occupant of any cellar, basement, or other building in which permission has been given to prepare live stock or poultry for the market shall keep or cause the same to be kept in a clean and sanitary condition, and cause all offal, blood, waste food, garbage, refuse, and all unwholesome or offensive matter to be removed therefrom at least once every 24 hours, and shall make provision for the proper drainage of such places, and shall at all times keep all woodwork (except floors and counters) in such places thoroughly painted or whitewashed; and the floors thereof shall be so constructed as to prevent blood or foul liquid or washings from seeping through and settling in the earth beneath.

RULE 21. The rendering of lard, tallow, or meat scraps of any description in or near any market within the limits of the city is forbidden without written permission of the board of health and under such conditions as the board may provide, and said written permission may be revoked for cause by the board upon recommendation of the health officer.

[Regulations board of health, adopted Oct. 18, 1911.]

ROCKFORD, ILL.

BAKERIES—INSPECTION OF.

All bakeries in the city of Rockford shall be subject to inspection from time to time. The following score card shall be used as a basis of this inspection:

SANITARY INSPECTION OF BAKERY.

Name of bakery, _____ Address, _____
Owner, _____ Date of scoring, _____ Score, _____

	Perfect score.
Room free from contaminating surroundings.....	4
Tight, smooth floors.....	2
Tight, smooth walls and ceiling.....	2
Light (sunlight, 4; electric light, 2; gas light, 1).....	4
Ventilation.....	2
Large, convenient sinks.....	4
Convenient furnishings and machinery.....	2
Cleanliness of floors.....	6
Cleanliness of walls.....	4
Cleanliness of ceiling.....	2
Cleanliness of tables and furnishings.....	10
Cleanliness of sinks. 4; shelves, 2.....	6
Utensils—mixers.....	4
Utensils—pans, 2; knives and cutters, 2.....	4
Clean cloths for rolling jelly rolls, etc.....	2
Freedom from flies, cockroaches, and other insects.....	12
Attendants' aprons and overalls.....	4
Attendants' personal cleanliness.....	4

Storage of materials—flour-----	2
Storage of materials—milk, eggs, etc-----	2
Washroom and lockers-----	2
Water-closet-----	2
Back yard of bakery-----	2
Disposal of refuse-----	4
Storage of baked goods-----	4
Transportation—wagon-----	2
Transportation—drivers and methods-----	2
	100

After the inspection has been made a copy of the score card shall be left with the owner or manager of the bakery, and such instructions as may be found necessary will be sent in written form from the office of the department of health.

All bakery wagons in the city of Rockford shall be stopped from time to time by our inspector, and the condition of the trays, shelves, floor, baskets, cleanliness of the driver, and method of handling the products shall be investigated and reported to the department of health. Written orders shall be served on the owner of wagons found faulty.

[Regulation, department of health, adopted September, 1911.]

SACRAMENTO, CAL.

FOODSTUFFS—PROTECTION OF.

SECTION 1. The manufacture, production, preparation, compounding, packing, selling, offering for sale, or keeping for sale within the city of Sacramento, or the introduction into this city from any other town, city, or county of any article of food, liquor, drugs, or medicines which is adulterated, mislabeled, or misbranded within the meaning of this ordinance is hereby prohibited. Any person, firm, company, or corporation who shall import or receive from any other town, city, or county, or, having so received, shall deliver for pay or otherwise, or offer to deliver to any other person, any article of food, liquor, drugs, or medicines, adulterated, misbranded, or mislabeled within the meaning of this ordinance, or any person who shall manufacture or produce, prepare or compound, or pack or sell, or keep for sale in the city of Sacramento any such adulterated, mislabeled, or misbranded food, liquor, drugs, or medicines, shall be guilty of a misdemeanor.

SEC. 2. The term "food," as used in this ordinance, shall include all articles used for food, drink, liquor, confectionery, or condiment by men or other animals, whether simple or compound or mixed.

SEC. 3. The standard of purity of food and liquor (except as hereafter provided) shall be that proclaimed by the Secretary of the United States Department of Agriculture.

SEC. 4. Food shall be deemed adulterated within the meaning of this ordinance in any of the following cases:

ARTICLE 1. If any substance has been mixed or packed, or mixed and packed with the food, so as to reduce or lower or injuriously affect its quality, purity, strength, or food value.

ART. 2. If any substance has been substituted wholly or in part for the article of food.

ART. 3. If any essential or valuable constituent or ingredient of the article of food has been wholly or in part abstracted.

ART. 4. If it be mixed, colored, powdered, coated, or stained in any manner whereby damage or inferiority is concealed.

ART. 5. If it contain any added poisonous or other deleterious ingredient and, except in the case of butter, analine colors.

ART. 6. If it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal or vegetable unfit for food, whether manufactured or not, or if it is the product of a diseased animal or one that has died otherwise than by slaughter: *Provided*, that an article of liquor shall not be deemed adulterated, mislabeled, or misbranded if it be blended or mixed with like substances, so as not to injuriously reduce or injuriously lower or injuriously affect its quality or strength or purity.

ART. 7. In the case of confectionery: If it contain terra alba, barytes, talc, chrome yellow, aniline colors, or other poisonous colors or flavor or other ingredient deleterious or detrimental to health, or any vinous, malt, or spirituous liquor or compound or narcotic drug, or if it be polished, powdered, or coated or in any manner treated whereby damage is concealed, or if it is made to appear better or of greater value than it is.

(a) All candies, figs, prunes, dates, popcorn, shelled nuts, dried and evaporated fruits, dried or evaporated berries shall be inclosed so as to protect them from the dust and dirt.

(b) All fruits, vegetables, and berries must be placed not less than 14 inches from sidewalk or floor.

ART. 8. In the case of pickles and fruit sauces: If they contain other sweetening matter than pure sugar.

ART. 9. In the case of vinegar: If it be artificially colored.

ART. 10. If it does not conform with the standard of purity as proclaimed by the Secretary of the United States Department of Agriculture.

ART. 11. In the case of meats, manufactured or otherwise: If they contain preservatives other than pure spices, sugar, vinegar, salt, wood smoke, and, pending further inquiry, saltpeter.

ART. 12. Cream shall be termed adulterated when it contains less than 20 per cent of butter fat or when antiseptics or any substance or substances have been added.

ART. 13. That no meats shall be transported in open wagons or vehicles without being covered or otherwise perfectly protected from dust, dirt, and flies.

SEC. 5. The term "drug," as used in this ordinance, shall include all medicines and preparations recognized in the United States Pharmacopœia or National Formulary and the regulations and definitions adopted for the enforcement of the national food and drug act of June 30, 1906, shall be adopted by the city board of health for the enforcement of this ordinance.

SEC. 6. Drugs shall be deemed adulterated within the meaning of this ordinance in any of the following cases:

(a) If when a drug is sold under or by a name recognized in the United States Pharmacopœia or National Formulary it differs from the standard of strength, quality, or purity as determined by the test laid down in the United States Pharmacopœia or National Formulary official at the time of the investigation: *Provided*, That no drug defined in the United States Pharmacopœia or National Formulary shall be deemed adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the package thereof, together with the standard of strength, quality, or purity recognized by the United States Pharmacopœia or National Formulary, although it differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary.

(b) If the strength or purity fall below the professed standard or quality under which it is sold.

SEC. 7. That the term "misbranded" as used herein shall apply to all articles of food or articles which enter into the composition of food, or to all drugs and medicines the package or label of which shall bear any statement, design, or device regarding such article of food, or drugs, or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to the city, county and county, county, town, State, Territory, District of Columbia, or foreign country in which it is manufactured or produced.

SEC. 8. Food, liquor, and drugs shall be deemed mislabeled or misbranded within the meaning of this ordinance in any of the following cases:

(a) If it be an imitation of or offered for sale under the distinctive name of another article of food or drug.

(b) If it be labeled or branded or colored so as to deceive or mislead, or tend to deceive or mislead, the purchaser, or if it be falsely labeled in any respect, or if it purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package.

(c) If in the case of drugs and medicines the package as offered for sale at retail or wholesale fail to bear a statement on the label of the per cent of volume of alcohol or the quantity of any morphine, opium, cocaine, heroin, alpha, or betaucaine, chloroform, cannabis indica, chloral hydrate, acetanilid, or any derivatives or any preparation of these substances contained therein,

except when prescribed by a licensed physician, licensed dentist, or licensed veterinary surgeon.

(d) If in the case of food and drugs in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of such package.

(e) All packages of food must bear the true name of the manufacturer.

If, having no label, it is an imitation or adulteration or is sold or offered for sale under a name, designation, description, or representation which is false or misleading in any particular whatever; and, in the case of eggs and poultry, if they have been kept or packed in cold storage or otherwise preserved, they must be so indicated by written or printed label or placard plainly designating such a fact when offered or exposed for sale.

SEC. 9. The term "package" as used in this ordinance shall be construed to include any wrapper, phial, bottle, jar, demijohn, carton, bag, case, box, or barrel, or any receptacle, vessel, or container, of whatsoever material or nature, which may be used by a manufacturer, producer, jobber, packer, or dealer for inclosing any article of food or drugs.

SEC. 10. The possession, sale, or offering for sale of any adulterated, mislabeled, or misbranded food, liquor, or drug by any manufacturer, producer, jobber, wholesaler, packer, dealer, or broker, commission merchant, or agent, or employee, shall be prima facie evidence of the violation of this ordinance.

SEC. 11. Milk is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within 15 days before and 10 days after calving, and containing not less than 8½ per cent of solids not fat and not less than 3¼ per cent of butter fat and containing not more than 100,000 bacteria per cubic centimeter.

(a) No person, persons, firm, or corporation shall have for sale, or offer for sale, or keep for use, or give away, any milk or milk product or compound in which milk or a product is used, which is obtained from any cow or cows which, after being tested for tuberculosis, are found to be affected with this disease, inspection for tuberculosis being conducted in the usual manner and at any time deemed necessary by the city board of health.

(b) Ice cream is a frozen product, made from cream, milk, and sugar, with or without natural flavoring, containing not less than 14 per cent of butter fat; and if thickening is used it must be of a harmless vegetable substance, and such fact must be clearly stated on the label.

SEC. 12. For the purpose of carrying out the provisions of this ordinance, the Sacramento city board of health shall cause to be made by the analyst, food and market inspector and deputies, inspections, examinations, and analyses of food and drugs suspected of being adulterated, mislabeled, or misbranded.

SEC. 13. For the purpose of carrying out the provisions of this ordinance, the food and market inspector, city analyst, and deputies shall qualify as special police.

SEC. 14. It shall be a misdemeanor for any person to refuse to sell any deputy, the food and market inspector, or analyst any sample of food, liquor, or drugs upon tender of the market price thereof, or to withhold from him information where such food, liquor, or drug is kept; or withholding such information from such officer shall, upon conviction, be punished as provided in section 19 of the Penal Code of the State of California.

SEC. 15. It shall be the duty of the city attorney of the city of Sacramento to prosecute all violations of the provisions of this ordinance.

SEC. 16. Any person, firm, or corporation violating any of the provisions of this ordinance shall be guilty of a misdemeanor and, on conviction, shall be punished by a fine of not less than \$25 and not more than \$500, or shall be imprisoned in the county jail for a term not exceeding six months, or by both such fine and imprisonment. Food, liquors, and drugs found to be adulterated, mislabeled, or misbranded within the meaning of this ordinance may, by order of any court or judge, be seized and destroyed.

SEC. 17. No dealer shall be prosecuted under the provisions of this ordinance when he can establish a guaranty, signed by the wholesaler, jobber, manufacturer, or other party residing in the United States from whom he purchased such article, to the effect that the same is not adulterated, mislabeled, or misbranded within the meaning of this ordinance, designating it. Said guaranty to afford protection must contain the name and address of the party making the sale of such article to said dealer, and an itemized statement showing the articles purchased, or a general guaranty may be filed with the Secretary of the United States Department of Agriculture by the wholesaler, manufacturer,

or jobber, or any other party in the United States, and be given a serial number, which number shall appear on each and every package of goods sold under such guaranty with the words "Guaranteed under the food and drugs act, June 30, 1906."

[Ordinance No. 11, adopted Dec. 4, 1911.]

SAN FRANCISCO, CAL.

WIPING RAGS MADE FROM CAST-OFF CLOTHING—CLEANSING AND STERILIZATION OF.

SECTION 1. It shall be unlawful for any person, firm, or corporation to sell or offer for sale soiled cloths or rags, or soiled or disused or cast-off underclothing, garments, bedding, bedclothes, or parts thereof for use as wiping rags unless the same have been cleansed and sterilized by a process of boiling continuously for a period of 40 minutes in a solution containing at least 5 per cent of caustic soda.

SEC. 2. It shall be unlawful for any person, firm, or corporation employing mechanics, workmen, or laborers to furnish or supply such employees for use as wiping rags soiled cloths or rags, or soiled or disused or cast-off underclothing, garments, bedclothes, bedding, or parts thereof, unless the same have been cleansed and sterilized in the manner herein prescribed.

SEC. 3. Wiping rags within the meaning of this ordinance are cloths and rags used for wiping and cleaning the surfaces of machinery, machines, tools, locomotives, engines, motor cars, automobiles, cars, carriages, windows, furniture, and surfaces of articles in factories, shops, steamships, and steamboats, and generally in industrial employments, and also used by mechanics and workmen for wiping from their hands and bodies soil incident to their employment.

SEC. 4. It shall be unlawful for any person, firm, or corporation to establish or maintain a laundry for cleaning or sterilizing wiping rags or soiled cloths or rags or soiled and disused or cast-off clothing, garments, underclothing, bedclothes, bedding, or parts thereof, within the limits of the city and county of San Francisco, without having first complied with the ordinances of the said city and county regulating the conducting of public laundries and obtain a permit therefor as required by section 12 of this ordinance.

SEC. 5. No charge whatever shall be made or compensation or fee collected or received for the performance of any services required by the provisions of this ordinance, or the issuance of certificates or permits, but all such services shall be performed free of charge.

SEC. 6. All soiled cloths and rags and soiled and disused and cast-off underclothing, garments, bedclothes, bedding, and parts thereof, before being offered for sale or sold or furnished for use as wiping rags, must be subjected to a process of sterilizing approved by the board of health of the city and county of San Francisco, including the process of boiling for a period of 40 minutes in a solution of caustic soda mentioned in section 1. Before washing all sleeves, legs, and bodies of garments must be ripped and opened and all garments made into flat pieces.

SEC. 7. It shall be unlawful for any person, firm, or corporation to wash, cleanse, sterilize, or dry disused or cast-off clothing, garments, underclothing, bedclothes, bedding, or parts thereof, or soiled cloths or rags in the same building or by the same machine or appliances by which clothing, bedding, or other articles for personal or household use are laundered.

SEC. 8. Each package or parcel of wiping rags must before being sold be plainly marked "Sterilized Wiping Rags," with the number and date of the certificate given by the health officer of the said city and county for the conducting of a laundry in which the rags contained in such package or parcel were cleansed and sterilized or with the name and location of the laundry in which said rags were cleansed and sterilized.

SEC. 9. Wiping rags imported into this city and county from other cities, counties, or States shall not be used, sold, or offered for sale unless they have been cleansed and sterilized as required by this ordinance, or unless such imported rags are inspected by the health officer and a certificate given by him that such rags have been inspected and cleansed and sterilized as required by this ordinance.

SEC. 10. The health officer shall inspect all wiping rags and give a certificate to that effect when the rags inspected have been cleansed and sterilized as required by this ordinance. Such certificate shall also state the date of inspection, the quantity and number of parcels inspected, the name of the owner, and the place where the wiping rags were cleansed and sterilized.

SEC. 11. All persons having wiping rags in their possession for sale or for use shall, upon demand of any officer of the department of public health or any police officer, exhibit such wiping rags for inspection and give all information as to where and from whom said wiping rags were obtained.

SEC. 12. No person, firm, or corporation shall engage in the business of laundering, cleaning, or sterilizing cloths or material for wiping rags, or selling wiping rags without a permit therefor from the board of health. Such permit shall be granted as of course on the first application and may be revoked by the board of health for violation by the holder of any of the provisions of this ordinance. Subsequent permits to a person, firm, or corporation in place of a permit revoked may be granted or refused, at the discretion of the board. The board of health shall keep a register of all persons engaged in laundering, cleaning, sterilizing, or selling wiping rags, and shall enter therein the place of business, the date of issue, and the revocation of permit.

PENALTY.

SEC. 13. Any person, firm, or corporation who shall violate any of the provisions of this ordinance shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not to exceed \$500 or by imprisonment in the county jail for not more than six months, or by both such fine and imprisonment.

SEC. 14. The police authorities are hereby directed to have the provisions of this ordinance enforced.

SEC. 15. This ordinance shall take effect and be in force 10 days after its passage.

In board of supervisors, San Francisco, September, 1911.

[Ordinance adopted September, 1911.]

UNION (TOWNSHIP), N. J.

SLAUGHTERHOUSES.

SEC. 33. That in every slaughterhouse hereafter constructed or maintained within the township of Union the floors shall be paved with asphalt or some other impervious material, properly sloped to a well-trapped and permanently graded inlet, having a direct communication with a sewer; the walls thereof shall be covered to a height of 7 feet with some smooth, impervious material; the yards, apartments, and pens connected therewith shall be paved with brick or stone laid in cement or concrete, or some other impervious material, and properly sloped to a well-trapped and permanently graded inlet having a direct communication with a sewer. Every slaughterhouse shall be supplied with an adequate water supply and such arrangement of hose or pipes as will enable the walls, floors, and yards to be effectually washed; and every slaughterhouse and the apartments and pens connected therewith shall be properly ventilated according to the direction and satisfaction of the board of health. Any person or persons or corporations failing to comply with the directions, or offending against or violating any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of \$50 for the first offense, and for the second and each subsequent offense the sum of \$100.

SEC. 34. That the owners, agents, lessees, or occupants of all slaughterhouses located within this township are required to provide movable receptacles with tightly fitting cover for the purpose of receiving and conveying away blood, filth, offal, and other offensive matters; and these matters must be deposited in the receptacles immediately after slaughtering and removed, with all fat, hides, skins, tripe, and bones, daily between the hours of 6 p. m. and 8 a. m. No blood or offal shall be permitted to flow into the sewer. Any person or persons or corporations offending against or violating any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of \$50.

SEC. 35. That the owners, agents, tenants, lessees, or occupants of all slaughterhouses shall thoroughly and effectually wash the walls, floors, and yards thereof at least once in every 24 hours, and during the months of May, June, July, August, and September shall distribute twice each week not less than 25 pounds of chloride of lime about their premises, and also remove the contents of any manure pit or manure pile on the premises once in each week during said months; if the above requirements should not be complied with, the board of health is hereby directed to carry out the provision of this section as to disin-

fecting and the removal of the contents of said manure pits or piles, at the expense of said owner, agent, tenant, lessee, or occupant. Any person or persons or corporations failing to comply with or offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of \$25.

SEC. 36. That no blood pit, dung pit, or privy well shall remain or be constructed within any slaughterhouse. Any person or persons or corporation offending against or violating any of the provisions of this section shall on conviction thereof forfeit and pay a penalty of \$25.

SEC. 37. If it shall at any time appear to the board of health that exceptions to any of the provisions of sections 33, 34, 35, and 36 of this code should be made, a permit in writing to that effect may be granted, subject to revocation at the pleasure of the board.

[Part of ordinance adopted Dec. 11, 1911.]

YONKERS, N. Y.

POLLUTION OF STREAMS.

SEC. 114. No person shall throw, deposit, discharge, or convey, or cause to be thrown, deposited, discharged, or conveyed, into the Nepperhan River, in the city of Yonkers, or into any pond or stream in said city, any garbage, refuse, excrement, animals, either dead or living, or any vegetable or animal matter liable to decay and emit offensive or unwholesome gases or effluvia, or anything which is or is likely to become a nuisance, dangerous or detrimental to public health.

SEC. 115. There shall be no sewage or any unclean discharge whatsoever which is or may become injurious to health from any dwelling house, privy, vault, cesspool, slaughterhouse, factory, store, stable, or other building into the Nepperhan River or any pond or stream in the city of Yonkers.

SEC. 116. No owner, lessee, tenant, or occupant of any premises in the city of Yonkers, adjacent to or in the vicinity of the Nepperhan River or any pond or stream, shall construct, use, maintain, discharge therefrom into or upon the premises so owned or occupied by him, any privy, water closet, or cesspool, situated so that excrement, slops, garbage, or any vegetable or animal matter which is or is likely to become a nuisance or offensive, can pass or be discharged therefrom into or upon either the waters of the Nepperhan River or any pond or stream in the city of Yonkers, or upon the surface of the land adjacent to or in the vicinity of said Nepperhan River or stream.

[Part of ordinance adopted Dec. 26, 1911.]

PLAGUE-PREVENTION WORK.

PLAGUE-INFECTED SQUIRRELS FOUND.

During the week ended May 18, 1912, positive diagnosis of plague was made in 23 ground squirrels collected in Alameda and Contra Costa Counties, Cal. The squirrels were found as follows: In Alameda County, May 7, 1 squirrel; May 8, 1 squirrel; May 9, 3 squirrels; in Contra Costa County, May 7, 3 squirrels; May 8, 11 squirrels; May 10, 1 squirrel; May 11, 2 squirrels; May 13, 1 squirrel.

DISTRIBUTION OF POISON.

In connection with the making and maintenance of a squirrel-free zone around the cities of California on San Francisco Bay. 7,293 acres of land in Alameda County were covered with poison during the week ended May 18, 1912.

RECORD OF PLAGUE INFECTION.

Places.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number of rodents found infected since May, 1907.
California:				
Cities—				
San Francisco.....	Jan. 30, 1908.....	Oct. 23, 1908.....	None.....	398 rats.
Oakland.....	Aug. 9, 1911.....	Dec. 1, 1908.....	do.....	126 rats.
Berkeley.....	Aug. 27, 1907.....	None.....	do.....	None.
Los Angeles.....	Aug. 11, 1908.....	do.....	Aug. 21, 1908.....	1 squirrel.
Counties—				
Alameda (exclusive of Oakland and Berkeley).	Sept. 26, 1909.....	Wood rat, Oct. 17, 1909.	May 9, 1912.....	211 squirrels and 1 wood rat.
Contra Costa.....	July 21, 1911.....	None.....	May 13, 1912.....	382 squirrels.
Fresno.....	None.....	do.....	Oct. 27, 1911.....	1 squirrel.
Merced.....	do.....	do.....	July 13, 1911.....	5 squirrels.
Monterey.....	do.....	do.....	Aug. 6, 1911.....	Do.
San Benito.....	June 5, 1910.....	do.....	June 8, 1911.....	22 squirrels.
San Joaquin.....	Sept. 18, 1911.....	do.....	Aug. 26, 1911.....	18 squirrels.
San Luis Obispo.....	None.....	do.....	Jan. 29, 1910.....	1 squirrel.
Santa Clara.....	Aug. 23, 1910.....	do.....	Oct. 5, 1910.....	23 squirrels.
Santa Cruz.....	None.....	do.....	May 17, 1910.....	3 squirrels.
Stanislaus.....	do.....	do.....	June 2, 1911.....	13 squirrels.
Washington:				
Cities—				
Seattle.....	Oct. 30, 1907.....	Sept. 21, 1911.....	None.....	25 rats.

RATS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected
California:					
Cities—					
Berkeley.....	May 18, 1912	.....	1 179	128	.....
Oakland.....	.....do.....	34	2 771	596	.....
San Francisco.....	.....do.....	8	3 1,655	1,326	.....
Washington:					
City—					
Seattle.....	.....do.....	.....	923	871	.....

¹ Identified: *Mus norvegicus*, 128; *Mus musculus*, 51.

² Identified: *Mus norvegicus*, 626; *Mus rattus*, 2; *Mus musculus*, 141; *Mus alexandrinus*, 2.

³ Identified: *Mus norvegicus*, 908; *Mus rattus*, 200; *Mus musculus*, 329; *Mus alexandrinus*, 218.

SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

During the week ended May 18, 1912, 321 ground squirrels collected in Alameda County and 2,398 collected in Contra Costa County, Cal., were examined for plague infection. Five from Alameda County and 18 from Contra Costa County were found to be plague infected.

CEREBROSPINAL MENINGITIS.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 8, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Boston, Mass.....	27	2	New York, N. Y.....	13	3
Chicago, Ill.....	2	1	Oklahoma, Okla.....	1	1
Houston, Tex.....	1	.....	Omaha, Nebr.....	1	.....
Kansas City, Mo.....	2	3	Philadelphia, Pa.....	1	1
Los Angeles, Cal.....	.....	1	Providence, R. I.....	1	.....
New Bedford, Mass.....	1	.....	St. Louis, Mo.....	2	.....
New Orleans, La.....	1	1			

ERYSIPELAS.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 8, 1912.

Cities.	Cases.	Deaths.	Cities.	Cases.	Deaths.
Ann Arbor, Mich.....	2	.....	New York, N. Y.....	21	11
Baltimore, Md.....	.....	1	Omaha, Nebr.....	2	.....
Boston, Mass.....	.....	2	Philadelphia, Pa.....	7	1
Bridgeport, Conn.....	1	.....	Pittsburgh, Pa.....	4	.....
Cincinnati, Ohio.....	2	.....	Plainfield, N. J.....	2	.....
Cleveland, Ohio.....	9	1	Providence, R. I.....	.....	1
Everett, Mass.....	.....	1	Rutland, Vt.....	1	.....
Hartford, Conn.....	1	.....	St. Louis, Mo.....	7	.....
Kalamazoo, Mich.....	1	.....	Taunton, Mass.....	.....	1
Los Angeles, Cal.....	2	.....	Wheeling, W. Va.....	1	.....
Milwaukee, Wis.....	2	.....	Williamsport, Pa.....	1	.....
Newcastle, Pa.....	1	.....	Zanesville, Ohio.....	.....	1

PELLAGRA.

During the week ended June 8, 1912, 3 deaths from pellagra were reported at Houston, Tex., and 1 at Montgomery, Ala.

PNEUMONIA.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 8, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Ann Arbor, Mich.....	1	.....	Mount Vernon, N. Y.....	3	.....
Auburn, N. Y.....	3	2	Newark, N. J.....	.....	6
Baltimore, Md.....	.....	12	New Bedford, Mass.....	.....	1
Beaver Falls, Pa.....	1	.....	New Orleans, La.....	.....	5
Binghamton, N. Y.....	1	1	New York, N. Y.....	.....	84
Boston, Mass.....	.....	16	Norristown, Pa.....	.....	1
Braddock, Pa.....	2	.....	Oakland, Cal.....	.....	5
Bridgeport, Conn.....	.....	3	Omaha, Nebr.....	.....	1
Brockton, Mass.....	.....	1	Pasadena, Cal.....	.....	2
Cambridge, Mass.....	.....	1	Passaic, N. J.....	.....	4
Chicago, Ill.....	20	74	Pawtucket, R. I.....	.....	2
Chicopee, Mass.....	.....	1	Philadelphia, Pa.....	16	33
Cincinnati, Ohio.....	.....	5	Pittsburgh, Pa.....	20	25
Cleveland, Ohio.....	17	6	Providence, R. I.....	.....	1
Dayton, Ohio.....	.....	5	Reading, Pa.....	.....	3
Elizabeth, N. J.....	.....	2	Richmond, Va.....	.....	1
Elmira, N. Y.....	1	2	Roanoke, Va.....	.....	1
Evansville, Ind.....	.....	1	Rockford, Ill.....	.....	1
Fall River, Mass.....	.....	6	Rutland, Vt.....	1	.....
Galesburg, Ill.....	.....	3	Salem, Mass.....	.....	2
Grand Rapids, Mich.....	.....	1	Schenectady, N. Y.....	5	4
Hartford, Conn.....	.....	4	South Bethlehem, Pa.....	.....	1
Houston, Tex.....	.....	2	South Omaha, Nebr.....	.....	1
Kalamazoo, Mich.....	3	.....	Springfield, Mass.....	.....	2
Kansas City, Mo.....	1	1	Superior, Wis.....	.....	1
La Fayette, Ind.....	.....	1	Taunton, Mass.....	.....	2
Lawrence, Mass.....	.....	1	Toledo, Ohio.....	.....	1
Lexington, Ky.....	.....	2	Washington, D. C.....	.....	2
Logansport, Ind.....	.....	1	Wilkes-Barre, Pa.....	.....	4
Los Angeles, Cal.....	.....	4	Wilkinsburg, Pa.....	.....	1
Lowell, Mass.....	.....	2	Williamsport, Pa.....	1	2
Malden, Mass.....	.....	2	Yonkers, N. Y.....	.....	2
Manchester, N. H.....	1	1	Zanesville, Ohio.....	.....	1

POLIOMYELITIS.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 8, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Cincinnati, Ohio.....	1	.....	Philadelphia, Pa.....	1	1
Lowell, Mass.....	1	.....	New York, N. Y.....	11	1
New Orleans, La.....	1	.....		

TETANUS.

During the week ended June 8, 1912, tetanus was reported as follows: Baltimore, Md., 1 death; Houston, Tex., 1 death; Philadelphia, Pa., 2 cases and 1 death.

SMALLPOX IN THE UNITED STATES.

In the following table the States indicated by an asterisk are those from which reports of smallpox are received only from certain city, and in some cases county, boards of health. In these States, therefore, the recorded cases and deaths should not be taken as showing the general prevalence of the disease. In the States not marked by an asterisk the reports are received monthly from the State boards of health and include all cases reported to the State authorities.

REPORTS RECEIVED DURING WEEK ENDED JUNE 28, 1912.

Places.	Date.	Cases.	Deaths.	Remarks.
Indiana:				
Counties—				
Clark.....	Apr. 1-30.....	4		In addition to those noted on p. 873.
Bartholomew.....	May 1-31.....	7		
Clark.....	do.....	13		
Dearborn.....	do.....	1		
Delaware.....	do.....	3		
Gibson.....	do.....	5		
Green.....	do.....	1		
Howard.....	do.....	1		
Johnson.....	do.....	15		
Laporte.....	do.....	1		
Madison.....	do.....	1		
Marion.....	do.....	6		
Miami.....	do.....	1		
Morgan.....	do.....	1		
Pike.....	do.....	9		
Randolph.....	do.....	1		
St. Joseph.....	do.....	1		
Sullivan.....	do.....	2		
Vanderburg.....	do.....	1		
Wabash.....	do.....	2		
Total for State.....		72		
Kansas:				
Counties—				
Allen.....	Mar. 1-31.....	2		
Cherokee.....	do.....	2		
Crawford.....	do.....	5		
Labette.....	do.....	1		
Lyon.....	do.....	47		
McPherson.....	do.....	1		
Mitchell.....	do.....	1		
Montgomery.....	do.....	1		
Republic.....	do.....	1		
Sedgewick.....	do.....	36		
Sumner.....	do.....	1		
Wichita.....	do.....	1		
Wyandotte.....	do.....	5		
Total for State.....		104		
Brown.....	Apr. 1-30.....	1		
Clay.....	do.....	5		
Leavenworth.....	do.....	1		
Lyon.....	do.....	15		
Total for State.....		22		
*Kentucky:				
Louisville.....	Jan. 1-31.....	4		
Do.....	Feb. 1-29.....	3		
Do.....	Mar. 1-31.....	11		
Do.....	Apr. 1-30.....	7		
Do.....	May 1-31.....	8		
*Louisiana:				
New Orleans.....	June 9-15.....	4		
Oregon.....	Jan. 1-31.....	67		In addition to those noted on p. 471.
*South Carolina:				
Charleston.....	Apr. 1-30.....	3		
*Tennessee:				
Knoxville.....	June 9-15.....	5		
Wyoming:				
Counties—				
Uinta.....	Feb. 1-29.....	18	3	In addition to those noted on p. 403.
Carbon.....	Mar. 1-31.....	1		
Sweetwater.....	do.....	14		
Total for State.....		15		
Grand total for the United States.....		347	3	

MORBIDITY AND MORTALITY.

MORBIDITY AND MORTALITY TABLES, CITIES OF THE UNITED STATES, FOR WEEK ENDED JUNE 8, 1912.

Cities.	Popula- tion United States census, 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Small- pox.		Tuber- culosis.		Ty- phoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having over 500,000 inhabitants.</i>														
Baltimore, Md.	558,485	179	8	1	31		5				60	27	10	2
Boston, Mass.	670,585	208	27	2	194	1	14				68	21	17	
Chicago, Ill.	2,185,283	618	122	18	333	4	204	17	2	1	107	79	19	5
Cleveland, Ohio.	560,663	140	30	1	99	3	40	1			27	15	1	
New York, N. Y.	4,766,883	1,338	241	15	1,233	21	261	15			549	182	48	9
Philadelphia, Pa.	1,549,008	432	50	8	36	1	63	3			92	50	27	1
Pittsburgh, Pa.	533,905	132	17	4	185	6	31	3			44	13	4	
St. Louis, Mo.	687,029	175	11	2	16		14				41	18	3	1
<i>Cities having from 300,000 to 500,000 inhabitants.</i>														
Cincinnati, Ohio.	364,463	108	2	1	12		21				31	17	1	1
Detroit, Mich.	465,766	157	23	3			16	3	4					
Los Angeles, Cal.	319,198	76	7		15		9		2		31	12		
Milwaukee, Wis.	373,857	99	12	2	111	2	24	1	1		16	6	9	1
Newark, N. J.	347,469	95	17		23		13				41	10	3	1
New Orleans, La.	339,075		5		33		10		4		34	12	5	1
Washington, D. C.	331,069	96	3		146	1	2				36	14	9	1
<i>Cities having from 200,000 to 300,000 inhabitants.</i>														
Jersey City, N. J.	267,779	63		1								6		
Kansas City, Mo.	248,381		4		6						4	12		
Providence, R. I.	224,326	48	5		6	1	9				6	7		
<i>Cities having from 100,000 to 200,000 inhabitants.</i>														
Bridgeport, Conn.	102,054	25	4		2	1	7	4			6			
Cambridge, Mass.	104,839	23	3		57						4	2		
Columbus, Ohio.	181,548	43	4		32		5				3	6	1	
Dayton, Ohio.	116,577	35	2		40		1		1			3	1	
Fall River, Mass.	119,295	37	1		1	1	1				6	0	3	
Grand Rapids, Mich.	112,571	35			5		1				1	4	4	2
Lowell, Mass.	106,294	38	3	1	56	6	2				4	4	3	
Nashville, Tenn.	110,364	47					1		2		5	2	1	
Oakland, Cal.	150,174	39			8		1				1	6	1	1
Omaha, Nebr.	124,096	20	2				1		1			2	1	
Richmond, Va.	127,628	39			4				1		5	3	2	1
Spokane, Wash.	104,402	40	2		20		2		7				4	
Toledo, Ohio.	168,497	54	4	1	110	1	2					4	5	
Worcester, Mass.	145,986	45	5	1	25	1					6	7		
<i>Cities having from 50,000 to 100,000 inhabitants.</i>														
Altoona, Pa.	52,127	8	1									1		
Bayonne, N. J.	55,545	13	1		14		4				4	2		
Brockton, Mass.	56,878	15			14	1					6	1		1
Camden, N. J.	94,538						5				7			
Duluth, Minn.	78,466	18					7				1	1		
Elizabeth, N. J.	73,409	26	1		3		4	1			4	2		
Evansville, Ind.	69,647	21	2		4		1				1	3	2	
Fort Wayne, Ind.	63,933	16	1		4						1	1	1	
Harrisburg, Pa.	64,186	17	2		3				3		5	2		
Hartford, Conn.	98,915	37	11	3	36	2	7	2			9		1	
Hoboken, N. J.	70,324	21	2		4		2				11			
Houston, Tex.	78,800	25							2			1		
Johnstown, Pa.	55,482	14	1		7							1		
Kansas City, Kans.	82,331		3										2	
Lawrence, Mass.	85,892	28			7		1				8	3	2	
Lynn, Mass.	89,336	16	3								8	3	1	
Manchester, N. H.	70,063	11	3		15						1	1		
New Bedford, Mass.	96,652	24	4		6		2				5	3	3	
Oklahoma City, Okla.	64,205	11			5							1	1	1
Passaic, N. J.	54,773	21	2		56						5			

MORBIDITY AND MORTALITY—Continued.

Morbidity and mortality tables, cities of the United States, for week ended June 8, 1912—Continued.

Cities.	Popula- tion United States census, 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Small- pox.		Tuber- culosis.		Ty- phoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having from 50,000 to 100,000 inhabitants—Continued.</i>														
Reading, Pa.	96,071	28	5	32							1	2	8	2
Saginaw, Mich.	50,510	10	2	6		2						2		
Schenectady, N. Y.	72,826	18	1 1	59	2	1								
South Bend, Ind.	53,684	4	1	1									3	
Springfield, Ill.	51,678	15											1	
Springfield, Mass.	88,926	18	3 1	3		1					1	1	1	
Trenton, N. J.	96,815	38	2	1		1					11	9	3	
Wilkes-Barre, Pa.	67,105	19	2	1							1	2	2	
Wilmington, Del.	87,411	26										5	5	
Yonkers, N. Y.	79,803	22	3	5		4					6	4	1	
<i>Cities having from 25,000 to 50,000 inhabitants.</i>														
Atlantic City, N. J.	46,150	14												
Auburn, N. Y.	34,668	11		3							4			
Aurora, Ill.	29,807	8	1									1		
Berkeley, Cal.	40,434			4		1					1	1		
Binghamton, N. Y.	48,443	15	1										1	
Brookline, Mass.	27,792	5		7										
Chattanooga, Tenn.	44,604					4		1					1	
Chelsea, Mass.	32,452	6	1	18		1					6	1		
Chicopee, Mass.	25,401	9		15		1						1		
Danville, Ill.	27,871	6		4								1		
East Orange, N. J.	34,371		2	48		2								
Elmira, N. Y.	37,176	12		52	1						1			
Everett, Mass.	33,484	10	1	8									1	
Fitchburg, Mass.	37,826	5												
Haverhill, Mass.	44,115	10	1	35		1					3		1	
Kalamazoo, Mich.	39,437	11		1		1					4			
Knoxville, Tenn.	36,346	11							5			1		
La Crosse, Wis.	30,417	6	2									1		
Lancaster, Pa.	47,227			14		3					1			
Lexington, Ky.	35,099	16		2							3	3	2	1
Lynchburg, Va.	29,494	14		8		3					1	2		
Malden, Mass.	44,404	9		20		2							1	
Montgomery, Ala.	38,136	18		1								2	3	
Mount Vernon, N. Y.	30,919		1	5		1					2			
Newcastle, Pa.	36,280		1			1						7		
Newport, Ky.	30,300	3				1								
Newton, Mass.	39,806	7	2	51							2			
Niagara Falls, N. Y.	30,445	7	1	4				3			1			
Norristown, Pa.	27,875	8									4		1	
Orange, N. J.	29,630		1 1	8								1		
Pasadena, Cal.	30,291	9										2		
Pittsfield, Mass.	32,121	16	1 2	1								2		
Portsmouth, Va.	33,190	11						2				3		
Racine, Wis.	38,002	11	5			2							1	
Roanoke, Va.	34,874	12		6		1					3	2	1	
Rockford, Ill.	45,401	15	1	4		4						2	37	
Salem, Mass.	43,697	10		9				2				2		
San Diego, Cal.	59,578			2				2			4	4		
South Omaha, Nebr.	26,259	10					2						1	
Superior, Wis.	40,384						2					2		
Taunton, Mass.	34,259	14	1	1										
Waltham, Mass.	27,834	7	1	11							2			
West Hoboken, N. J.	35,403		2	9							1			
Wheeling, W. Va.	41,641	7	7 1	6							2	1	2	
Williamsport, Pa.	31,860		7 1	48										
Wilmington, N. C.	25,748	11									2	1	9	
York, Pa.	44,750		1	29										
Zanesville, Ohio	28,026	10	1 1									1	2	

MORBIDITY AND MORTALITY—Continued.

Morbidity and mortality tables, cities of the United States, for week ended June 8, 1912—Continued.

Cities.	Population United States census, 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Small-pox.		Tuberculosis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having less than 25,000 inhabitants.</i>														
Alameda, Cal.	23,833	5			17						1	1		
Ann Arbor, Mich.	14,817	15	1											
Beaver Falls, Pa.	12,191		1				1							
Biddeford, Me.	17,079	5										1		
Braddock, Pa.	17,759	4												
Cambridge, Ohio.	11,327	2												
Camden, S. C.		1												
Carbondale, Pa.	17,040	7			4									
Clinton, Mass.	13,075	6			2		1					1		
Coffeyville, Kans.	12,687													1
Columbus, Ga.	20,554	5												
Columbus, Ind.		3			1		3							
Concord, N. H.	21,497	11			21									1
Cumberland, Md.	21,839	2			18						2	1		
Dunkirk, N. Y.		3									1			
Galesburg, Ill.	20,089	7	1											
Harrison, N. J.	14,498	3	3								1			
Homestead, Pa.	18,710		3											
Kearny, N. J.	18,659	9	2								3			
La Fayette, Ind.	20,081	5										1		
Logansport, Ind.	19,050	5	1		1							1		
Marlboro, Mass.	14,579	2												
Massillon, Ohio.	13,879	3	1				1							
Medford, Mass.	23,156	4	1		39		1					1		
Melrose, Mass.	15,715	7			15							1		2
Moline, Ill.	24,199	3	2											3
Morristown, N. J.	12,507	9			6									
Nanticoke, Pa.	18,509	2												
Newburyport, Mass.	19,240	7												1
North Adams, Mass.	22,019	8												
Northampton, Mass.	19,431				6									
Ottumwa, Iowa.	22,012	6										1		
Palmer, Mass.		3												
Plainfield, N. J.	22,050	3	1		1									
Rutland, Vt.	13,546	3	1											
Saratoga Springs, N. Y.		4			1									
South Bethlehem, Pa.	19,973	7			1							1		
Steeltown, Pa.	14,246				7									
Warren, Pa.	11,080	3			1		2							
Wilkinsburg, Pa.	18,294	3			4		4				3			
Woburn, Mass.	15,308	5			1		1				1			

STATISTICAL REPORTS OF MORBIDITY AND MORTALITY, STATES OF THE UNITED STATES (Untabulated).

CONNECTICUT.—Month of May, 1912. Population of reporting towns 1,127,518. Total number of deaths from all causes 1,386, including diphtheria 15, measles 14, scarlet fever 7, tuberculosis 142, typhoid fever 13. Cases reported: Diphtheria, 117 in 34 towns; measles, 1,104 in 68 towns; scarlet fever, 167 in 41 towns; smallpox, 72 in 8 towns; tuberculosis, 186 in 46 towns; typhoid fever, 68 in 27 towns.

MISSOURI.—Six months ended December 31, 1911. Population 3,293,335. Total number of deaths from all causes 20,373, including

diphtheria 390, measles 32, scarlet fever 65, smallpox 5, tuberculosis 2,250, typhoid fever 771.

Three months ended March 31, 1912. Total number of deaths from all causes 12,354, including diphtheria 178, measles 23, scarlet fever 62, smallpox 1, tuberculosis 1,372, typhoid fever 128.

NEW YORK.—Month of April, 1912. Population 9,592,258. Total number of deaths from all causes 12,775, including diphtheria 155, measles 187, scarlet fever 135, tuberculosis 1,589, typhoid fever 68. Cases reported: Diphtheria 1,652, measles 11,137, scarlet fever 2,762, smallpox 32, pulmonary tuberculosis 2,514, typhoid fever 433.

WISCONSIN.—Months of January, February, and March, 1912. Population 2,333,815. Total number of deaths from all causes 7,608, including diphtheria 89, measles 18, scarlet fever 120, smallpox 1, tuberculosis 669, typhoid fever 108. Cases reported: Diphtheria 525, measles 868, scarlet fever 1,465, smallpox 236, tuberculosis 326, typhoid fever 445.

FOREIGN AND INSULAR.

CHINA.

Amoy—Plague.

Consul Brissel reports May 20 the presence of plague in Amoy and vicinity.

Hongkong—Plague—Smallpox—Plague—Infected Rats.

Surg. Brown reports: During the week ended May 11, 1912, 138 cases of plague, with 118 deaths, and 6 cases of smallpox, with 4 deaths, were reported at Hongkong.

During the same period 2,746 rats were examined at Hongkong, of which number 35 were found to be plague-infected.

Swatow—Plague in Consular District.

According to information received from Consul Williams, dated May 18, plague was reported prevalent at four localities in the consular district of Swatow, one of the localities being the nearest rail-road station to Swatow.

CUBA.

Transmissible Diseases.

The following statement was issued by the Cuban sanitary department:

Month of May, 1912.

Disease.	New cases.	Deaths.	Remain- ing under treat- ment.
Tuberculosis.....	137	197	1,348
Leprosy.....		2	344
Malaria.....	104	15	147
Typhoid fever.....	85	24	72
Diphtheria.....	46	8	7
Scarlet fever.....	43		3
Measles.....	108	3	54
Varicella.....	9		12
Tetanus in new born.....	16	16	
Dengue.....	4		12
Filariasis.....			2

EGYPT.

Typhus Fever.

Consul Knabenshue, at Cairo, reports the occurrence of 6 cases of typhus fever with 6 deaths at Cairo, and 2 cases with 1 death at Port Said, during the two weeks ended May 13, 1912.

HAWAII.

Examination of Rodents for Plague Infection.

During the month of May, 1912, 3,456 rats and mongoose were examined at Hilo and 6,265 at Honokaa. During the week ended June 1, 1912, 554 rats and mongoose were examined at Hilo and 1,292 rats and mongoose at Honokaa. No plague infection was found.

At Honolulu during the week ended May 25, 1912, 318 rats were examined, and during the week ended June 1, 197 rats. No plague-infected rat was found.

The last case of human plague occurred at Honokaa March 18, 1912. A plague-infected rat was found between Honokaa and Kapulena April 24, 1912.

INDIA.

Calcutta—Cholera and Plague.

Acting Asst. Surg. Allan reports cholera and plague as follows:

During the week ended April 27, 1912, 87 deaths from cholera and 119 from plague were reported at Calcutta; in all Bengal 1,830 cases of plague with 1,607 deaths; in all India 8,810 cases of plague with 7,783 deaths.

During the week ended May 4, 1912, 84 deaths from cholera and 94 from plague were reported at Calcutta; in all Bengal 1,204 cases of plague with 1,004 deaths; in all India 6,318 cases of plague with 5,413 deaths.

ITALY.

Examination of Emigrants.

Surg. Geddings, at Naples, reports:

Vessels inspected at Naples, Messina, and Palermo, week ended June 1, 1912.

NAPLES.

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of baggage inspected and passed.	Pieces of baggage disinfected.
May 29	San Guglielmo.....	New York.....	603	70	820
29	Pannonia.....	do.....			
30	Perugia.....	do.....	141	30	280
31	Konig Albert.....	do.....	1,077	150	1,470
June 1	Taormina.....	do.....	727	80	950
	Total.....		2,548	330	3,520

MESSINA.

May 27	San Guglielmo.....	New York.....	253	58	289
27	Pannonia.....	do.....			
	Total.....		253	58	289

PALERMO.

May 28	San Guglielmo.....	New York.....	236	380	200
28	Pannonia.....	do.....			
28	Kaiser Franz Joseph.....	do.....			
31	Perugia.....	do.....	150	150	80
June 1	Konig Albert.....	do.....	164	200	180
	Total.....		600	730	460

JAVA.**Batavia—Typhus Fever.**

Consul Rairden reports the occurrence of one case of typhus fever, with one death, during the week ended April 20, and three cases, with one death, for the two weeks ended May 11.

MEXICO.**Typhus Fever.**

At Aguascalientes Consul Schmutz reports the occurrence of two cases of typhus fever, with four deaths, during the two weeks ended June 9.

At Mexico City Consul General Shanklin reports 111 cases of typhus fever, with 24 deaths, during the two weeks ended May 11.

Yellow Fever at San Juan Bautista.

The American consul at Frontera reports four new cases of yellow fever at San Juan Bautista June 22.

PORTO RICO.**San Juan—Plague Situation.**

Passed Asst. Surg. Grubbs reports June 25: Rat examinations indicate that a mile of the water front is infected. Measures are being taken to limit the infection to the island of the old city. The worst houses in the infected area are being destroyed after being first surrounded by a wire fence. Systematic catching and laboratory examination of rats and daily house inspection are being carried on. Observation and detention camps have been provided. Three deaths have occurred in the suburbs. Am urging catching and examination of rats there.

RUSSIA.**Plague.**

From April 21 to May 5, 1912, seven cases of plague, with six deaths, were reported in the village of Karasoy, Ural Province.

SOUTH AFRICA.**Durban, Natal—Plague.**

A death from plague occurred at Durban May 25, 1912. The last case previously reported occurred April 15.

VENEZUELA.**Caracas—Yellow Fever.**

Two cases of yellow fever were reported at Caracas during the two weeks ended May 31, 1912.

ZANZIBAR.

Zanzibar—Examination of Rats.

Consul Weddell reports the examination of 1,072 rats at Zanzibar during the week ended May 7, 1912. No plague-infected rat was found.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

REPORTS RECEIVED DURING WEEK ENDED JUNE 28, 1912.

[These tables include cases and deaths recorded in reports received by the Surgeon General, Public Health and Marine-Hospital Service, from American consuls through the Department of State, and from other sources.]

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Bassein	Apr. 29-May 4	12	12	June 19, still present.
Bombay	May 12-18	73	61	
Calcutta	Apr. 29-May 4	3	84	
Moulmine	do	6	6	
Indo-China:				
Saigon	Apr. 30-May 13	83	63	Total Feb. 29-May 18: Cases 249, deaths 96. Employees in railway construction.
Turkey in Asia and Europe				
Adana	Apr. 17-29	53	23	
Do	Apr. 30-May 13	72	25	
Biredjick	Jan. 6-Feb. 5	17	18	
Bilan	May 6	2	2	
Dijan	Feb. 5-May 13	11	5	
Janina	Feb. 5-Mar. 13	3	3	
Jeanne d'Arc	Jan. 1-6	7	6	
Loros	Feb. 5-Mar. 13	16	7	
Tarsus	Feb. 5-Apr. 15	7	5	

YELLOW FEVER.

Brazil:				
Manaos	May 26-June 1		5	Still present.
Chile:				
Tocopilla	May 25			
Mexico:				
San Juan Bautista	June 22	4		

PLAGUE.

Chile				1 Year 1911: Cases, 262; deaths, 85.
Iquique	May 5-11	1		
China				May 18, present in the majestries of Fungshun, Kayung, and Puning. Present. Do. Total, Mar. 3-30, cases 35, deaths 34.
Amoy	May 20			
Ampo	May 18			
Hongkong	May 5-11	138	118	
Dutch East Indies				
Provinces—				
Kediri	Mar. 3-30	2	1	
Madiven	do	14	15	
Surabaya	Mar. 13	1	1	
Egypt:				
Alexandria	May 11-14	4	3	
Fort Said	May 23-28	3		
Provinces—				
Assiout	May 15-24	7	2	
Beni Souef	May 15-29	12	4	
Fayoum	May 17-27	26	17	
Garbieh	Apr. 25	1		
Girgeh	May 14-25	4	2	
Menouf	Apr. 24-May 26	13	1	
Minieh	May 16-26	46	11	

¹ From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, June 5, 1912.

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

Reports Received during week ended June 28, 1912.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay.....	May 12-18.....	88	80	
Calcutta.....	Apr. 28-May 4.....		94	
Karachi.....	May 12-18.....	70	65	
Indo-China:				
Saigon.....	Apr. 30-May 13....	21	10	
Java:				
Paseroean Residency.....	May 5-11.....	10	9	
Persia:				
Bushir.....	Apr. 14-May 11....	513	394	
Russian Empire:				
Ural territory.....	Apr. 21-May 5....	7	6	
South Africa:				
Durban.....	May 25.....	1	1	

SMALLPOX.

Brazil:					
Para.....	May 19-25.....		1		
British East Africa:					
Mombasa.....	Apr. 1-30.....		1		
Canada:					
Fernie.....	June 11-17.....	1			
Hamilton.....	June 9-15.....	1			
Quebec.....	.....do.....	5			
Toronto.....	May 26-June 8.....	2			
Windsor.....	June 9-15.....	2			
Chile:					
Coquimbo.....	May 19-25.....	7	6		
China:					
Hongkong.....	May 5-11.....	6	4		
Seoul.....	May 1-25.....	12			
France:					
Paris.....	May 19-June 1....	9	1		
Germany:					
Chemnitz.....	May 19-25.....		1		Total May 26-June 1: Cases, 24.
Great Britain:					
Bristol.....	May 26-June 1....	1			
India:					
Bombay.....	May 12-18.....	55	36		May 5-11: Cases 18, deaths 8.
Calcutta.....	Apr. 28-May 4.....		3		
Karachi.....	May 12-18.....	1	1		
Indo-China:					
Saigon.....	Apr. 30-May 13....	4	2		
Italy:					
Leghorn.....	June 2-8.....	4			
Naples.....	May 19-June 1....	7	1		
Palermo.....	.....do.....	7			
Java:					
Batavia.....	May 5-11.....	3	1		
Mexico:					
Aguascalientes.....	June 3-9.....		1		
Juarez.....	June 2-15.....	4			
Mazatlan.....	June 5-11.....		2		
Mexico.....	Apr. 28-May 18....	84	40		
Portugal:					
Lisbon.....	May 26-June 1....	3			
Russia:					
Moscow.....	May 5-18.....	12			
St. Petersburg.....	May 12-25.....	27	12		
Warsaw.....	Apr. 14-20.....	8	2		
Spain:					
Malaga.....	Mar. 1-31.....		5		
Straits Settlements:					
Singapore.....	Apr. 28-May 4.....	1	1		
Turkey in Asia:					
Beirut.....	May 19-25.....	12			

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

Reports Received from Dec. 30, 1911, to June 28, 1912.

[For reports received from July 1, 1911, to Dec. 29, 1911, see PUBLIC HEALTH REPORTS for Dec. 29, 1911. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Hodeida	Jan. 21	2	1	
Ras-el-Ketib	Dec. 27-Jan. 1			Total cases, 22; deaths, 12; mainly in the military hospital.
Austria-Hungary:				
Coastland—				
Capodistria	Dec. 14-24	2	2	
Croatia and Slavonia				Total Oct. 22-Dec. 16: Cases, 36.
Sriem	Oct. 22-Dec. 16	36		
Hungary				Total Nov. 19-Dec. 23: Cases, 37. Free Dec. 28.
Backs-Bodog	Dec. 10-16	9	5	
Jasz-Nagykun-Szolnok	Dec. 3-23	11	7	
Torontal	Nov. 19-Dec. 16	17	2	
Bahrein Island	Nov. 27-Dec. 30		260	In the Persian Gulf.
Bulgaria:				
Burgas	Nov. 22-23	2	2	Aug. 30-Sept. 6; 2 fatal cases from s. s. Episticia from Asia Minor, p. 1635, Vol. XXVI.
Varna	Nov. 6	1		
China:				
Amoy	June 3			Present.
Hongkong	Jan. 14-20	1	1	July 2-15, 1911: Cases, 5; deaths, 4, p. 1300, Vol. XXVI.
Dutch East Indies				Total year 1911: Cases, 3,624; deaths, 2,919, including report, p. 2092, Vol. I.
Batavia	Nov. 12-Dec. 23	21	8	Free Dec. 31.
Celebes	Mar. 10	5	2	
Sumatra—				
Siantar	Apr. 1-27			Present.
India				Year 1911: Deaths, 323,237.
Bassein	Jan. 14-May 4	169	91	
Bombay	Apr. 7-May 18	122	101	June 19, still present.
Calcutta	Nov. 5-May 4		1,440	
Madras	Nov. 26-May 11	561	453	Madras Presidency Nov. 1-Dec. 31: Cases, 10,436; deaths, 6,545. Jan. 1-Apr. 30: Cases, 22,878; deaths, 14,430.
Moulmine	Feb. 18-May 4	47	44	
Negapatam	Jan. 14-Feb. 24		79	
Pondicherry	Feb. 22-28	4	4	
Rangoon	Oct. 1-Mar. 31	143	124	
Indo-China:				
Saigon	Nov. 20-May 13	1,904	1,342	And vicinity.
Italy				Total June 8-Dec. 31: Cases, 15,985; deaths, 6,022.
Caltanissetta	Nov. 26-Dec. 31	9	7	
Girgenti	do	105	57	
Messina	Nov. 26-Dec. 2	3	2	
Syracuse	Nov. 26-Dec. 23	15	9	
Malta	Nov. 19-Dec. 10	6	6	Dec. 23 declared free from cholera.
Montenegro	Nov. 4-11	9	5	
Persia:				
Adaban	Nov. 4	1	1	
Kermanshah	Dec. 19-26		37	
Philippine Islands				Third quarter, 1911: Manila, 1, fatal case; Provinces, 27 cases and 22 deaths. Fourth quarter, 1911: Manila, no case and no death; Provinces, 22 cases, 20 deaths.
Province—				
Union	Oct. 29-Dec. 4	5	5	Total Sept. 9-Dec. 13: Cases, 192; deaths, 42, including report, p. 2094, vol. 1. Free Dec. 19.
Roumania				
Districts—				
Braila	Sept. 11-Dec. 13	84	11	Including cases previously reported.
Convuluri	Oct. 31-Nov. 28	21	1	
Dolju	Nov. 6-Dec. 13	19	4	
Jalonitza	Oct. 31-Nov. 28	4		
Konstanza	Oct. 30-Nov. 28	8		
Frahova	Nov. 6-23	1	1	
Talomita	do	2		
Tulcea	Nov. 24-Dec. 13	15	1	

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

Reports Received from Dec. 30, 1911, to June 28, 1912—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Servia.....				Total year 1911: Cases, 95; deaths, 51, including report, p. 2095, vol. 1.
Belgrade district.....	Nov. 26-Dec. 16...	6	4	Declared free Dec. 31.
Siam:				
Bangkok.....	Nov. 5-Apr. 20.....		1,775	
Straits Settlements:				
Singapore.....	Nov. 5-Feb. 3.....	4	4	
Tripoli:				
Tripoli.....	Oct. 13-Jan. 24.....			Cases, 2,000; deaths, from 1,000 to 1,200.
Tunis Regency.....				Total Nov. 25-Jan. 4: Cases, 462; deaths, 323. No case since Jan. 10.
Beja district.....	Nov. 25-Dec. 21.....	71	20	
Bizerta district.....	Nov. 25-Dec. 5.....	9	15	
Turkey in Asia.....				Provinces in Asia and Europe, Apr. 16-Dec. 30, 1911: Deaths, 6,111, excluding Constantinople. Mainly among troops. Jan. 6-May 18: Cases, 350; deaths, 222.
Do.....	Mar. 18-May 7.....	53	31	Along the line of the Damascus railway construction.
Acre.....	Jan. 21.....		33	In vicinity.
Adana.....	Dec. 2-May 13.....	206	83	Among employees in railway construction.
Aleppo.....	Jan. 26-May 18.....	48	30	May 18, 2 cases: 1 death.
Amara.....	Oct. 15.....	1	1	
Antioch.....	Mar. 25-Apr. 16.....	11	6	
Basra.....	Oct. 22-28.....	14	10	
Bilan.....	Apr. 7-May 2.....	2	2	
Biredjik.....	Jan. 6-Feb. 5.....	17	18	
Dijan.....	Feb. 5-May 13.....	11	5	
Jeanne d'Arc.....	Jan. 1-6.....	7	6	
Erzeroum, vilayet.....	Sept. 11-16.....	50	28	
Ezeroum.....	do.....	11	8	
Kaifa.....	Dec. 8.....			Present.
Kerbelah.....	Oct. 20-28.....	10	10	
Kharput.....	Nov. 19-Dec. 30.....	47	47	
Jiddah.....	Dec. 2-24.....	323	310	
Mekka.....	Dec. 4-24.....	905	879	Sept. 1-Dec. 24: Cases, 1,648; deaths, 1,565.
Mersina.....	Dec. 1-7.....	2	1	
Osmania.....	Dec. 1-6.....	2	4	
Sinope.....	Dec. 7.....	2	1	
Tarsus.....	Feb. 5-Apr. 15.....	7	5	
Tor.....	Dec. 14-26.....	29		
Trebizond and vicinity.....	Sept. 18-23.....	64	34	
Tripoli.....	Jan. 4.....			Do.
Turkey in Europe:				
Constantinople.....	Oct. 24-Feb. 3.....	8	2	
Durazzo.....	Dec. 7-13.....	2		
Janina.....	Jan. 14-Mar. 13.....	20	8	
Loros.....	Jan. 22-Mar. 13.....	28	14	
Saloniki, vilayet.....	Nov. 6-19.....	4	3	In Serres.

YELLOW FEVER.

Brazil:				
Bahia.....	Mar. 23-25.....		1	
Ceara.....	Jan. 1-Feb. 29.....		5	
Manaos.....	Nov. 19-June 1.....		77	
Para.....	Mar. 3-9.....	2	2	Dec. 9-16: 1 fatal case.
Pernambuco.....	Jan. 1-Apr. 15.....		29	Apr. 2: Epidemic.
Rio de Janeiro.....	Mar. 17-Apr. 30.....	4	3	
Canal Zone:				
Culebra Island quarantine.....				In January 1 case from a vessel from Guayaquil. Mar. 2-4, 1 fatal case from s. s. Chile from Guayaquil.

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

Reports Received from Dec. 30, 1911, to June 28, 1912—Continued.

YELLOW FEVER—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Chile.....				May 7: Present in Iberia, Peregrina, Prosperidad, Santa Ana, and Santa Fe.
Tocopilla.....	Jan. 28-Apr. 30.....	570	179	Including previous report. Case Jan. 28 from s. s. Condor from Guayaquil. May 25, still present.
Ecuador:				
Bucay.....	Nov. 16-Feb. 29.....	7	2	
Duran.....	Dec. 1-Apr. 15.....	14	6	
Guayaquil.....	Nov. 16-Apr. 30.....	173	77	
Huilgra.....	Feb. 1-29.....	1		
Milagro.....	Feb. 1-Apr. 30.....	19	10	
Naranjal.....	Mar. 16-31.....	1		
Naranjito.....	Feb. 1-Apr. 30.....	9	6	
Yaguachi.....	Feb. 1-Apr. 30.....	3		
Great Britain:				
Liverpool.....	May 14-18.....	1		Convalescent on s. s. Gladiator from Cabdello, detained at Port Sanitary Hospital.
Mexico:				
Espita.....	Dec. 31-Jan. 6.....	1		
Kambul, hacienda.....	Feb. 21-27.....		7	
Maxcanu.....	Dec. 31-Jan. 6.....	1		
Merida.....				Total Aug. 1, 1911-May 25, 1912: Cases, 67; deaths, 31.
Puerto Mexico (Coatzacoalcos).....	Feb. 28-May 25.....		2	
Salina Cruz.....	Feb. 4-7.....			7 cases in the lazaretto from s. s. Ikalis from Guayaquil.
San Juan Bautista.....	May 4-June 22.....	12	1	
Temax.....	Dec. 31-Jan. 6.....	1		
Portuguese Guinea:				
Bolama.....	Dec. 19-25.....	1	1	In an engineer on a vessel.
Venezuela:				
Caracas.....	Nov. 16-May 15.....	32		Dec. 1-30, 1911, 10 deaths, and Jan. 15-Mar. 31, 12 deaths, including previous reports. May 4-10, 1 death.
El Valle.....	Apr. 1-May 31.....			Present.
Guarenas.....	do.....			Do.
La Guaira.....	Mar. 17-Apr. 1.....	2	2	
Macuto.....	Mar. 16-May 30.....	2	2	Do.
Maiquetia.....	Feb. 24-Apr. 30.....	4	4	A suburb of La Guaira.
Sabana Grande.....	Dec. 12.....			Epidemic.
West Indies:				
Barbados—				
Bridgetown.....	Apr. 27.....	1	1	From steamship Francis from Para.
St. Vincent.....	Feb. 19.....	1		
At sea.....	Dec. 17-23.....	1	1	On a vessel en route from Manaos to Para.

PLAGUE.

Algeria:				
Philippeville.....	Oct. 19-Nov. 11.....	8	2	Including 5 cases, p. 2096, Vol. XXVI.
Arabia:				
Aden.....	Mar. 5-25.....	2	1	
Azores:				
Fayal.....	Jan. 10.....			Still present.
Teceira.....	do.....			Do.
Brazil:				
Bahia.....	Sept. 1-30.....		2	
Para.....	Dec. 24-Apr. 20.....	24	15	
Pernambuco.....	Oct. 1-Feb. 29.....		9	
Rio de Janeiro.....	Nov. 12-Feb. 10.....	7	3	
British East Africa:				
Kismayu.....	Oct. 15-25.....	2		1 case pneumonia.
Chile.....				Year, 1911: Cases, 262; deaths, 85.
Iquique.....	Nov. 12-May 11.....	30	13	
Pisagua.....	Nov. 1-30.....	8		

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

Reports Received from Dec. 30, 1911, to June 28, 1912—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
China.....				May 18 present in the magistracies of Fungshun, Kayung, and Puning.
Amoy.....	Jan. 13.....		1	May 20, present.
Ampo.....	May 18.....			Present.
Chaochowfu.....	Mar. 10-Apr. 13.....			Do.
Hongkong.....	Dec. 9-May 11.....	655	565	
Dutch East Indies:				
Java.....				Total Mar. 1-Dec. 30: Cases, 1,817; deaths, 1,324. Dec. 31-Mar. 30: Cases, 134; deaths, 129.
Provinces—				
Kediri.....	Jan. 1-Mar. 30.....	28	26	
Madiven.....	Mar. 3-30.....	67	64	
Paseroean Residency, Malang District.	Nov. 12-May 11.....	172	122	
Surabaya.....	Mar. 13.....	1	1	Oct. 17-27, 2 cases.
Ecuador:				
Duran.....	Feb. 1-29.....	1		
Guayaquil.....	Nov. 16-Feb. 29.....	124	52	Dec. 16-Jan. 31: Reports not available because of revolution. Total Jan. 1-Dec. 31, 1911: Cases, 1,656; deaths, 1,041, including cases previously reported. Jan. 1-May 27: Cases, 584, deaths, 294.
Egypt.....				
Alexandria.....	Mar. 22-May 26.....	7	5	
Cairo.....	Apr. 22-May 14.....	4	3	
Port Said.....	May 23-28.....	3		
Provinces—				
Assiout.....	Jan. 1-May 24.....	91	56	Sept. 11-16: Cases, 50; deaths, 28.
Assouan.....	Jan. 1-May 14.....	42	31	
Behera.....	Jan. 1-Apr. 15.....	5	3	Sept. 11-16: Cases, 11; deaths, 8.
Beni Souef.....	Feb. 16-May 29.....	52	16	
Carchieh.....	Apr. 21-27.....	8	7	
Fayoum.....	Jan. 1-May 27.....	52	27	
Galloubeh.....	Jan. 1-Apr. 23.....	5	3	Oct. 5-Dec. 26: Case, 1.
Garbieh.....	Jan. 1-Apr. 25.....	25	8	
Girgeh.....	Mar. 28-May 25.....	9	5	
Kena.....	Jan. 1-May 29.....	131	98	Nov. 20-Dec. 13: Cases, 3; deaths, 3.
Menouf.....	Feb. 2-Apr. 26.....	22	3	
Minieh.....	Jan. 1-May 26.....	128	28	Dec. 13: Case, 1.
German East Africa.....	Mar. 15-Apr. 10.....			65 cases of pneumonic and 3 cases of bubonic in Gasseni and Useri Demassi.
Dar-es-Salaam.....	Nov. 13-15.....	1	1	From the interior via Bergamogo.
Great Britain:				
Liverpool.....	Apr. 27-30.....	1	1	In the Royal Southern Hospital, from s. s. Italian Prince, which arrived at Liverpool Apr. 19, laden with fruit and grain from Mediterranean ports.
Hawaii:				
Honakaa.....	Feb. 9-Mar. 18.....	4	4	
India:				
Bombay.....	Nov. 19-May 18.....	1,375	1,153	
Calcutta.....	Nov. 11-May 4.....		1,007	
Karachi.....	Nov. 26-May 18.....	1,216	1,052	Total year 1911: Cases, 3,273; deaths, 3,046.
Madras.....	Jan. 1-6.....	1	1	
Rangoon.....	Oct. 1-Mar. 31.....	231	221	
Bombay Presidency and Sind.....	Oct. 29-Apr. 20.....	60,836	44,849	
Madras Presidency.....	do.....	10,450	8,094	
Bengal.....	do.....	41,919	35,690	
Babar and Orissa.....	Apr. 1-20.....	6,758	5,984	
United Provinces.....	Oct. 29-Apr. 20.....	108,195	97,121	
Punjab.....	do.....	21,693	16,416	
Burma.....	do.....	1,637	1,499	
Eastern Bengal and Assam.....	Jan. 1-Feb. 24.....	2	2	
Central Provinces.....	Oct. 29-Apr. 20.....	29,564	23,436	
Coorg.....	Oct. 29-Mar. 23.....	88	52	
Mysore State.....	Oct. 29-Apr. 20.....	8,809	6,819	
Hyderabad State.....	do.....	27,569	24,851	
Central India.....	do.....	9,769	7,948	
Rajputana and Ajmere Merwara.....	do.....	2,046	1,641	

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

Reports Received from Dec. 30, 1911, to June 28, 1912—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Kashmir.....	Feb. 3-Apr. 20....	331	164	Total for India, Oct. 29—Apr. 20: Cases, 329,670; deaths, 274,569. Total year 1911: Cases, 828,535; deaths, 691,849.
North West Province.....	Oct. 29—Apr. 20....	4	3	
Indo-China:				
Saigon.....	Nov. 13—May 13....	94	32	
Japan:				
Formosa.....	Mar. 7—Apr. 20....	92	74	From s. s. Panama Maru. from Hongkong. On the s. s. Tacoma Maru. from Hongkong and Shanghai.
Kobe.....	May 8.....	1	1	
Nagasaki.....	Apr. 20.....	1		
Mauritius.....	Nov. 3—Apr. 11....	113	69	
Persia:				
Bushire.....	Feb. 4—May 11....	835	513	
Mohammerah.....	Apr. 3.....	1		
Reshire.....	Feb. 6.....	2		
Peru:				
Departments—				
Callao.....	Oct. 1-21.....	1		City, in November, 1 case; in Jan- uary, 3 cases with 2 deaths; Mar. 1-26, 12 cases.
Chiclayo.....	do.....	12	4	Apr. 10, 22 cases in the lazarette at Trujillo. May 29 still pres- ent.
Chosica.....	do.....	1	1	
Lambayeque.....	do.....	3		
Libertad.....	do.....	8		
Lima.....	do.....	13	6	
Philippine Islands:				
Cebu quarantine station....	Dec. 4.....	1		On s. s. Montrose from Shanghai. Apr. 6, a fatal case of pneumonic form in a member of the crew on s. s. Zafiro, arrived Apr. 4 from Hongkong.
Manila.....				
Porto Rico:				
San Juan.....	June 14-20.....	12	5	
Russian Empire:				
Astrakhan, government....	Sept. 21-Jan. 7....	201	180	Including 73 cases and 63 deaths reported on p. 2098, Vol. I.
Ural Territory.....	Apr. 21—May 5....	7	6	
Senegal.....	May 29.....			Present.
Siam:				
Bangkok.....	Nov. 4—Mar. 23....		5	
South Africa:				
Durban.....				Total: Jan. 14—Apr.—May 25, cases 28, deaths 23.
Straits Settlements:				
Singapore.....	Nov. 5—Apr. 27....	32	28	
Turkey in Asia:				
Basra.....				Feb. 13, a fatal case in a stoker on s. s. Nicomedia from Bushire.
Jiddah.....	Jan. 13—May 6....	21	13	Apr. 10-12, 3 cases from s. s. Adalia from Newcastle.
Venezuela:				
Caracas.....	Mar. 12—Apr. 22....	6	2	
West Indies:				
Grenada.....	May 2-7.....	1	1	
Trinidad.....	Apr. 2—June 13....	9	7	
At sea.....	Mar. 1-11.....	1	1	On s. s. Macedonia from Bombay to Aden.
Do.....	Apr. 1.....	1	1	Pneumonic on s. s. Loongsang en route from Hongkong to Manila.

SMALLPOX.

Algeria:				
Algiers.....	Nov. 1—Apr. 30....		2	
Oran.....	Jan. 1-31.....	2	1	
Arabia:				
Aden.....	Nov. 23—Apr. 22....	23	11	And vicinity.
Argentina:				
Buenos Aires.....	Jan. 1-31.....		2	Oct. 1-31, 6 deaths. No deaths in November or December, 1911.
Rosario.....	Oct. 1—Feb. 29....		41	

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

Reports Received from Dec. 30, 1911, to June 28, 1912.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Australia:				
Thursday Island.....	Jan. 2.....	1		From s. s. Taiyuan.
Austria-Hungary:				
Bohemia.....	Jan. 14-May 11.....	5		
Budapest.....	Jan. 4-10.....	25		
Galicia.....	Dec. 24-May 11.....	40	1	
Krain.....	Jan. 14-20.....	7		
Trieste.....	Dec. 3-Apr. 27.....	4		From s.s. Baron Call from Beirut.
Tyrol.....	Jan. 14-Mar. 9.....	3		
Upper Austria.....	Apr. 28-May 11.....	1		
Vienna.....	Mar. 25-30.....	1		
Brazil:				
Bahia.....	July 1-31.....		1	
Para.....	Mar. 24-May 25.....	10	6	Case Mar. 30 from A lagoas.
Pernambuco.....	Oct. 1-Apr 15.....		838	
Rio de Janeiro.....	Nov. 26-Apr. 20.....	32	1	
Santos.....	Dec. 12-23.....		1	
British East Africa:				
Mombasa.....	Mar. 1-Apr. 30.....	5	1	
Canada:				
British Columbia—				
Fernie.....	Feb. 26-June 17.....	7		
Nelson.....	Dec. 24-30.....	1		
Vancouver.....	Apr. 14-20.....	1		
Victoria.....	Feb. 4-10.....	1		
Vinal Haven.....	May 17.....	7		5 miles from Eastport, Me.
Manitoba—				
Winnipeg.....	Jan. 14-Apr. 20.....	4		
New Brunswick—				
Summerstown.....	Apr. 12.....			Epidemic; 10 miles from Corn-wall.
Nova Scotia—				
Halifax.....	Mar. 24-Apr. 6.....	2		
Ontario—				
Hamilton.....	Apr. 14-June 15.....	17		
Kingston.....	Dec. 19-23.....	1		
Ottawa.....	Dec. 10-June 1.....	111	1	
Niagara Falls.....	May 8-31.....	2		
Sarnia.....	Oct. 17-Mar. 23.....	43		
Toronto.....	Jan. 6-June 8.....	10	1	
Windsor.....	Feb. 4-June 15.....	12		
Quebec—				
Montreal.....	Dec. 17-June 8.....	35		
Quebec.....	Dec. 10-June 15.....	308	2	
Yukon—				
Dawson.....	Apr. 1-6.....	1		
Ceylon:				
Colombo.....	Nov. 12-Apr 13.....	4		And vicinity.
Chile:				
Coquimbo.....	May 19-25.....	7	6	
Iquique.....	Dec. 10-Mar. 16.....	4	2	
La Serena.....	Nov. 21-30.....	14		
Santiago.....	Nov. 1-30.....	685	343	
Talcahuano.....	Nov. 26-Dec. 23.....	14	3	
Valparaiso.....	Dec. 3-Apr. 13.....	70		
China:				
Canton.....	Nov. 11-Dec. 30.....	40	6	
Chaochowfu.....	Mar. 30.....			Present.
Chenghai.....	Jan. 29-Apr. 13.....			Do.
Chungking.....	Nov. 18-May 4.....			Do.
Dalny.....	Mar. 3-Apr. 6.....	11	2	
Hankow.....	Jan. 21-Feb. 17.....	2	1	
Hongkong.....	Nov. 12-May 11.....	751	551	
Kityang.....	Jan. 21-May 18.....			Do.
Nanking.....	Dec. 10-May 11.....			Do.
Shanghai.....	Dec. 11-Feb. 18.....	1	6	Deaths among natives.
Swatow.....	Mar. 2.....			Present.
Cuba:				
Habana.....	Dec. 19-Jan. 19.....	2		Case Dec. 19 from German s. s. Frankenwald, from Spain and Canary Islands; case Jan. 19 from s. s. Mexico.
Dutch East Indies:				
Java—				
Batavia.....	Nov. 12-May 11.....	68	20	
Egypt:				
Cairo.....	Dec. 10-May 6.....	17	3	
Port Said.....	Jan. 30-Feb. 4.....	1		

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

Reports Received from Dec. 30, 1911, to June 28, 1912.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
France:				
Havre.....	Mar. 10-16.....		4	
Marseille.....	Jan. 1-Apr. 30.....		7	Nov. 1-30, 1 death.
Paris.....	Dec. 3-June 1.....	142	3	
Germany.....				Total, Dec. 31-June 1; cases, 217.
Chemnitz.....	May 19-25.....		1	
Hamburg.....	Jan. 21-May 18.....	8		
Kehl.....	Apr. 1-30.....	1		
Gibraltar.....	Feb. 27-Mar. 3.....	1		
Great Britain:				
Bradford.....	Apr. 28-May 4.....	1		
Bristol.....	Jan. 29-June 1.....	5		
Liverpool.....	Mar. 17-Apr. 17.....	2	1	Case Apr. 13, an American from the s. s. Arabic.
London.....	Jan. 14-Apr. 20.....	10	1	
Southampton.....	Mar. 3-9.....	1		
West Hartlepool.....	Feb. 18-Mar. 9.....	2		
India:				
Bombay.....	Nov. 19-May 18.....	1,304	652	
Calcutta.....	Nov. 19-May 4.....		52	
Karachi.....	Apr. 1-May 18.....	2	2	
Madras.....	Nov. 26-Apr. 27.....	211	83	
Rangoon.....	Oct. 1-Mar. 31.....	442	121	
Indo-China:				
Saigon.....	Nov. 13-May 13.....	61	13	
Italy:				
Genoa.....	Dec. 1-Apr. 15.....	47	2	
Leghorn.....	Dec. 16-June 8.....	117	1	
Messina.....	Nov. 19-Jan. 31.....		6	
Naples.....	Dec. 3-June 1.....	116	2	
Palermo.....	Nov. 26-June 1.....	2,674	910	
Rome.....	Jan. 1-Mar. 31.....	31	3	
Turin.....	Jan. 15-May 12.....	3		
Japan:				
Arima-Mura.....	Nov. 12-18.....	6	1	11 miles east from Kobe.
Formosa.....	Mar. 3-Apr. 20.....	4		
Kanagawa, ken.....	Dec. 17-23.....	1		
Kobe.....	Jan. 22-May 7.....	3	2	Jan. 20, 1 case from s. s. Suveric from Hongkong; Jan. 28, 1 case from Shingo Maru. Fatal case May 7 from s. s. Manchuria from Shanghai.
Korea, province.....	Jan. 1-Apr. 30.....			Total, exclusive of Seoul, 843 cases.
Seoul.....	Jan. 1-May 25.....	20		
Nagasaki.....	Feb. 12-18.....	1		
Nogahama.....	Mar. 17-23.....	1		On s. s. Tenyo Maru from Hongkong.
Yokohama.....	Jan. 22.....	1		From s. s. Hydra from New York via Suez.
Malta.....	Dec. 24-Jan. 6.....	2	1	
Mexico:				
Agascalientes.....	Dec. 18-June 9.....		8	
Chihuahua.....	Nov. 20-Feb. 11.....	92	36	
Coahuila, State.....	Oct. 1-30.....		16	
Guadalajara.....	Jan. 14-May 11.....	9	5	
Juarez.....	Dec. 19-June 15.....	26	6	
Magdalena.....	Dec. 23-Mar. 12.....	91	50	Mar. 12, 10 cases present.
Manzanillo.....	Feb. 18-24.....	1		
Mazatlan.....	Dec. 11-June 11.....		21	
Mexico.....	Nov. 26-May 18.....	400	194	
Monterey.....	Dec. 11-24.....		2	
Porfirio Diaz.....	Dec. 3-Mar. 23.....		35	
Salina Cruz.....	Feb. 11-Mar. 9.....	4	2	Mar. 23, present in vicinity.
San Antonio.....	Jan. 1-21.....	12	9	
San Carlos.....	.....do.....			Present.
Sandoval.....	Dec. 16.....			Do.
San Ignacio.....	Jan. 8.....	3		
San Juan Bautista.....	May 25.....	2		
San Luis Potosi.....	Nov. 12-Mar. 23.....	8	8	
Santa Ana.....	Jan. 8.....	4		
Sarie.....	Jan. 21-27.....		6	
Tampico.....	Dec. 1-Apr. 10.....		16	
Tapachula.....	Nov. 1-May 4.....		19	
Veracruz.....	May 21-June 1.....	1		

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

Reports Received from Dec. 30, 1911, to June 28, 1912.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands.....				Third quarter, 1911: Manila, 9 cases; no deaths. Fourth quarter, 1911: 38 cases.
Manila (on arriving vessel).....				Apr. 1 to 6, present on the steamers Serantes and Sotolongo; Apr. 2-9, 8 cases among the crew of the United States Army transport Warren, from ports in China and Japan.
Portugal:				
Lisbon.....	Dec. 9-June 1.....	77		
Russia:				
Batum.....	Dec. 1-Mar. 31.....	2		
Libau.....	Dec. 17-May 26.....	5		
Moscow.....	Nov. 19-May 18.....	84	10	
Odessa.....	Nov. 26-May 18.....	40	1	
Reval.....	Nov. 1-30.....	1		
Riga.....	Dec. 24-May 25.....	78		Oct. 1-Mar. 31: Deaths, 14.
St. Petersburg.....	Nov. 19-May 25.....	266	73	
Warsaw.....	Nov. 5-Apr. 20.....	463	215	
Siam:				
Bangkok.....	.....do.....		2,281	
Siberia:				
Omsk.....	Jan. 1-31.....	7		
Vladivostok.....	Apr. 22-28.....	1		
South Africa:				
Durban.....	Jan. 21-Apr. 6.....	5		
Johannesburg.....	Jan. 7-Feb. 10.....	36		
Spain:				
Almeria.....	Apr. 1-30.....		1	
Barcelona.....	Feb. 6-June 1.....		9	
Cadiz.....	Nov. 1-Apr. 30.....		31	
Madrid.....	Dec. 1-Mar. 31.....		16	
Malaga.....	Nov. 1-30.....		45	Mar. 1-31, 5 deaths.
Seville.....	Dec. 1-Apr. 30.....		12	
Valencia.....	Dec. 3-May 11.....	435	18	
Straits Settlements:				
Penang.....	Feb. 11-17.....	1		
Singapore.....	Nov. 19-May 4.....	41	17	
Switzerland:				
Cantons—				
Aargau.....	Apr. 7-13.....	1		
Oberwalden.....	Jan. 14-20.....	1		
St. Gall.....	Mar. 30-Apr. 6.....	1		
Zurich.....	Dec. 3-23.....	6		
Teneriffe:				
Santa Cruz.....	Dec. 3-Apr. 13.....		54	
Turkey in Asia:				
Beirut.....	Dec. 3-May 25.....	1,572	107	
Turkey in Europe:				
Constantinople.....	Dec. 4-May 28.....		232	
Uruguay:				
Montevideo.....	Sept. 1-Dec. 31.....	25	4	Mar. 1-30, 1 case.
Venezuela:				
Caracas.....	Nov. 1-Apr. 30.....	15	2	
Zanzibar:				
Zanzibar.....	Oct. 28-Dec. 15.....	3	2	

MORTALITY—FOREIGN AND INSULAR—COUNTRIES AND CITIES
(Un tabulated).

AUSTRIA-HUNGARY—*Brünn*.—Month of April, 1912. Population, 108,944. Total number of deaths from all causes 310, including diphtheria 3, measles 14, scarlet fever 2, tuberculosis 69.

BRAZIL—*Ceara*.—Month of April, 1912. Population, 60,000. Total number of deaths from all causes 195, including tuberculosis 20, typhoid fever 5. There were 2 deaths from yellow fever.

BRITISH EAST AFRICA—*Mombasa*.—Month of April, 1912. Population, 26,000. Total number of deaths from all causes 45, including smallpox 1, tuberculosis 2, typhoid fever 1. Cases reported: Typhoid fever 1.

CANADA—*Hamilton*.—Month of May, 1912. Population, 80,000. Total number of deaths from all causes 121, including diphtheria 1, measles 5, scarlet fever 1, tuberculosis 7. Cases reported: Diphtheria 13, measles 466, scarlet fever 20, tuberculosis 3.

GREAT BRITAIN.—Week ended May 25, 1912.

England and Wales.—The deaths registered in 95 great towns correspond to an annual rate of 13 per 1,000 of the population, which is estimated at 17,639,816.

Ireland.—The deaths registered in 22 principal town districts correspond to an annual rate of 16.9 per 1,000 of the population, which is estimated at 1,157,014. The lowest rate was recorded at Clonmel, viz. 00.0, and the highest at Newry, viz. 26.2 per 1,000.

Scotland.—The deaths registered in 18 principal towns correspond to an annual rate of 15.4 per 1,000 of the population, which was estimated at 2,182,400. The lowest rate was recorded at Clydebank, viz. 6.5, and the highest at Ayr, viz. 21.8 per 1,000. The total number of deaths from all causes was 644, including diphtheria 6, measles 29, scarlet fever 3, typhoid fever 2.

GUAM.—Three weeks ended April 19, 1912. Population, 9,000. Total number of deaths from all causes 16, including tuberculosis 4. There were 69 cases of hookworm disease.

HAWAII—*Hilo*.—Four weeks ended May 25, 1912. Population, 3,500; total number of deaths from all causes 4, including diphtheria 2, smallpox 1, tuberculosis 2. Cases reported: Diphtheria 3, tuberculosis 3.

ISLE OF PINES.—*Nueva Gerona*.—Twenty days ended June 10, 1912. Population, 892. Total number of deaths from all causes 1, from tuberculosis.

NEW ZEALAND.—Month of March, 1912.

Auckland.—Population, 104,728. Total number of deaths 64, including tuberculosis 1, typhoid fever 1.

Christchurch.—Population, 82,004. Total number of deaths 46.

Dunedin.—Population, 65,690. Total number of deaths 42, including tuberculosis 1.

Wellington.—Population, 71,427. Total number of deaths 48.

SOUTH AFRICA—*Bloemfontein*.—Month of April, 1912. Population, 22,000. Total number of deaths from all causes 42, including tuberculosis 2, typhoid fever 2. Cases reported: Scarlet fever 5, tuberculosis 3, typhoid fever 7. Remarks: Of the above, 28 deaths from all causes and 2 from tuberculosis; 1 case of typhoid fever and three cases of tuberculosis were reported from the colored population only.

SPAIN—*Malaga*.—Month of March, 1912. Population, 135,000. Total number of deaths from all causes 346, including diphtheria 2, measles 8, smallpox 5, tuberculosis 34, typhoid fever 1.

URUGUAY—*Montevideo*.—Month of March, 1912. Population, 343,849. Total number of deaths from all causes 789, including diphtheria 1, tuberculosis 73, typhoid fever 12. Cases reported: Diphtheria 11, measles 7, scarlet fever 9, smallpox 1, tuberculosis 115, typhoid fever 60.

By authority of the Secretary of the Treasury:

RUPERT BLUE,
Surgeon General,

United States Public Health and Marine-Hospital Service.

ADDITIONAL COPIES of this publication
may be procured from the SUPERINTEND-
ENT OF DOCUMENTS, Government Printing
Office, Washington, D. C., at 5 cents per copy.

Subscription price, per volume - - - - \$2

