infection depends. In the tramway cars spitting is already dealt with by by-laws, and many railway companies placard their carriages, stations, and retiring rooms with warnings against the practice. It is therefore by stimulation of public opinion to an appreciation of the special risks which may lurk behind simple dirtiness that any extensive reform in habits of this sort may be expected. Persistence in spitting on the floor of any place of assembly should render the offender liable to summary eviction. Actual disinfection by the local authority should be restricted to places where probability of definite infection can be established; indeed, it is doubtful whether the clauses of the existing acts could be applied in any wider sense. Schools are swept daily (although dry dusting has certain objections of its own) and washed periodically. Churches undergo a weekly sweeping. In some of the theaters considerable effort at maintaining cleanliness seems to be made.

But the circumstances which have been already referred to, showing the close association between infectivity and efficient ventilation, reveal the need for a special scrutiny of the provision made for the thorough ventilation of rooms in all plans of new houses submitted to the Dean of Guild Court, while definite effort is required to secure the ventilation of all places of assembly by measures which will be effective during the time they are in use.

Tuberculosis Dispensaries.—For executive purposes these, I think, should be ranked with the provision for isolating advanced cases as of the first importance.

Their organization should combine home supervision with treatment of the patient, and they should be able to ensure his admission to a sanatorium when this is necessary.

Their development on effective lines will, however, depend on the facilities which they have at their command for benefiting the individual patient, and co-operation between the local authority and philanthropic agencies appears to offer the most likely method of accomplishing this.

## CITY OF NEW YORK.

By J. S. Billings, Jr., M.D., Chief of Division of Communicable Diseases,
Department of Health, New York City.

During the past ten years the prevalence of typhoid fever and tuberculosis in New York City has been sensibly decreased. In 1895 there were 322 deaths from typhoid in Manhattan and the Bronx (the old City of New York), a death rate of 1.7 per 10,000 of population. During 1905, although the population of those two boroughs had increased almost 25 per cent, yet the number of deaths was only 310 and the death rate 1.2.

The one great remedy for typhoid fever-namely, filtration of the water

supply—has as yet not been introduced in New York City. Failing that, the above figures show what can be accomplished by supervision of the milk supply, instruction of physicians and laymen as to the importance of disinfection of the discharges from cases of typhoid fever, etc.

The various watersheds from which New York City draws its water are well guarded; but no matter how careful a watch is kept over them, chances for contamination are bound to occur.

The reporting of cases of typhoid fever to the Department of Health is compulsory, and fully 95 per cent of all recognized cases are so reported. A complete history is obtained in each case—not only of the course of the disease, but as to the possible sources of infection and all such sources are most carefully investigated. Milk stores and oyster stores are visited; unsanitary conditions of the patients' homes are corrected; families of the patients are instructed, verbally and by circular, as to the danger of direct contraction of the disease and the precautions which should be observed and, finally, on termination of the case the bedding is removed by the Department of Health, disinfected and returned.

Tuberculosis.—The problem here is much more difficult than is the case with typhoid fever. The percentage of cases reported to the department is lower, although it is increasing rapidly each year.

There are many reasons for this: among them that the disease is less readily recognized; does not confine the patient to bed; and, lastly, the patient is unwilling to have it known that he has consumption. Nevertheless, a great deal has been done. During 1895 there were 6,200 deaths from all forms of tuberculosis—a death rate of 3.3. During 1905, ten years later, only 6,300 deaths occurred, although the population had increased about one-fourth, and the death rate was reduced to 2.6.

The following measures have probably been of assistance in bringing about this result: the disinfection and renovation of premises previously occupied by persons suffering from pulmonary tuberculosis; the provision of hospital care and charitable aid in suitable cases; the removal of incipient cases to sanatoria outside the city; the removal of advanced cases to hospital, whether with their consent or no; the establishment of free dispensaries where patients can obtain treatment, advice and suitable diet (milk and eggs), and, finally, the education of the general public as to the nature of the disease, the precautions to be taken against its spread; the advisability of institutional and sanatoria treatment, etc.

## PHILADELPHIA.

By A. C. Abbott, M.D., Chief of the Bureau of Health, Philadelphia.

In the year 1903, the death rates from typhoid fever per 100,000 of population for fifteen cities located in various parts of the country were: