

Time was when a diagnosis of diphtheria was made upon the presence or absence of the characteristic lesion—the membrane. To-day most reliance is placed upon the bacteriological determination of the presence of the bacillus to which the production of the membrane and the other symptoms of the disease are ascribed. It is at least probable that some of the increase in notifications is attributable to more accurate diagnosis, to the extent that in past years cases now notified as diphtheria would have escaped notice.

The need for bacteriological examinations of suspected throats has made more pronounced the need for extending the bacteriological side of the Department's activities. It will be recognized that at present the bacteriological needs of the Dominion do not warrant such an extension by means of registered medical practitioners specially skilled in bacteriology. Provided the four centres are supplied with bacteriologists of standing and experience to whom special investigations or problems can be referred, and with whom technical consultations can be had, it should be sufficient to secure for the other centres, next greatest in population, persons adequately trained and experienced in the determination of the more common infections. A scheme has now been evolved whereby it is intended to send out to the hospitals graded next to those of the four centres fully competent bacteriological assistants. These officers will, when attached to such hospitals, bear the title "Hospital Bacteriologist." In so far as public-health work is concerned they will be under the direction of the District Health Officer, and in technical matters they will be guided by the Government Bacteriologist for their district. Their services, under carefully drawn conditions, will be available for private practitioners, thus widening the scope of the State's health activities.

The problem of the persistent "diphtheria-carrier" still gives rise to anxiety and to the trial of one and all of the many remedies for his suppression from time to time lauded—and, alas! just as often exploded. If it were known by what natural processes a person who has been inhabited by the diphtheria bacillus becomes free from it, or, in bacteriological terms, becomes "negative for diphtheria," doubtless the artificial application of equally effective means would be speedily evolved. We do not, however, yet know why some persons—"diphtheria-carriers"—continue to retain the bacillus in the exudates of the throat and nose for even months after all signs and symptoms of the active disease have disappeared, and why, on the other hand, some patients become "negative" almost forthwith upon recovery. The frequent observance of enlarged tonsils in "diphtheria-carriers" and the suppression of those "carriers" by tonsilectomy points to at least an effective surgical remedy being available. Much was hoped for the elimination of "carriers" by the use of chloramine T. in steam spray: this medicament, however, has now proved wanting. On the other hand, trials made with chloramine T. and other medicaments in steam spray in the prevention of the spread of diphtheria in schools has given hopeful results. The practice is to pass the whole of the infected school—scholars and teachers—through a small room so as to cause the nasal and oral mucous membrane to be exposed for a definite time to the medicinal spray. One satisfactory outcome of this school treatment is that the parents' fears are to some extent allayed by the fact that something is being done to prevent the spread of the disease beyond the principal measure heretofore adopted—the exclusion of the infected child and of the same household from attendance. Arising out of this it is worthy of the attention of Boards of Education that a special room should be provided at each school for this purpose.

Tuberculosis.

Casual observance of the figures would tempt the conclusion that phthisis—tuberculosis of the lungs—had markedly increased. Such a depressing pronouncement can readily be mollified by the explanation that by reason of war activities cases have been notified *en bloc*, as it were, rather than over an extended number of years. For the first time in New Zealand's history every single man of military age, and many married men, have been submitted to medical examination, not because of existing illness, but for the determination of physical fitness. Consequently cases of commencing phthisis—colloquially "lungs slightly touched"—are discoverable and have been notified, which under other circumstances might only have been recorded in the years to come. To this extent there is no real increase in the numbers of cases of phthisis. On the other hand, it cannot be denied that there is some actual increase by reason of the number of returned soldiers in whom the climatic hardships of war-campaigning has sought out a weak lung with unerring certitude, or in whom the same circumstances have diminished the natural resistance to tubercular infection.

Poliomyelitis.

The figures go to show that the number of cases of infantile paralysis notified in the past epidemic were an instance of that cyclical variation to which reference is made in the paragraph on diphtheria. Nevertheless, every District Health Officer is closely on the watch for any evidence of recrudescence and ready to exercise all possible measures for the prevention of its spreading.

Cerebro-spinal Meningitis.

A writer on infectious diseases in regard to past history of infections says: "During the warlike periods of humanity infections reigned as a result of traumatism, overwork, and crowding. During the periods of naval conquests we transported beyond the seas the maladies of our continent and imported various exotic infections." All this may be said of cerebro-spinal fever. A very prominent feature of the epidemics in the nineteenth century is the association of its presence and spread with camps and campaigning. The virus of cerebro-spinal meningitis is probably always existent in some member of any extensive community. When conditions, such as war, tend to bring about a lowering of individual resistance it can well be imagined, though there be no positive proof, how the hitherto