

**Report of the Commission of Public Health to the Minister of Public Health /
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DEPARTMENT OF PUBLIC HEALTH, VICTORIA.

REPORT

OF THE

COMMISSION OF PUBLIC HEALTH

TO THE

MINISTER OF PUBLIC HEALTH.

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO SECTION 16 OF THE HEALTH ACT 1919.

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DEPARTMENT OF PUBLIC HEALTH, VICTORIA.

REPORT BY THE COMMISSION OF PUBLIC HEALTH TO THE
HONORABLE MATTHEW BAIRD, M.L.A., MINISTER OF
PUBLIC HEALTH.

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1922

DEPARTMENT OF PUBLIC HEALTH, VICTORIA.

REPORT BY THE COMMISSION OF PUBLIC HEALTH TO THE HONORABLE MATTHEW BAIRD, M.L.A., MINISTER OF PUBLIC HEALTH.

The *Health Act* 1919 became law on 6th January, 1920, but did not commence, i.e., did not come into full operation, until the 24th March of the same year. During the interval thus elapsing the legal machinery necessary to work the Act was created, including the appointment of the members of the Commission.

On the date of the commencement of the Act the members of the Commission assembled at the Cabinet Room, where they were welcomed by the Honorable the Premier, who spoke of the great importance of their functions and of the desirability of putting into operation the provisions—especially the new provisions—of the Act gradually. He stated that he realized that it was impossible to carry out the Act fully without an increase of staff and an increase of expenditure, and he undertook to support the Commission in these directions as far as practicable consistent with the financial position of the State. On the withdrawal of the Premier the first official meeting of the Commission was held.

As the Act has a much greater scope than the previous Acts, the work in giving effect to its provisions has occupied a great deal of time—one hundred and sixty-two meetings having been held since the commencement of the Act until 30th June, 1922. As much of the Act is new, a large amount of the work was initiative.

It has ever been the aim of the Commission to exercise its powers with discretion and due consideration for the different circumstances obtaining in urban and rural communities consistent, of course, with sanitary essentials.

It is regretted that some municipal councils fail to realize or neglect the obligations imposed on them by the Act. The Commission is fully aware of the fact that successful administration can be secured only when councils cordially co-operate with it. While most councils are endeavouring to carry out the Act, in some instances the Commission has been reluctantly compelled to take legal action to enforce compliance with its requirements.

DISTRICT HEALTH OFFICERS AND HEALTH AREAS.

The Governor in Council, acting on the recommendation of the Commission, by proclamation on 20th April, 1921, divided the State of Victoria into six health areas, viz.:—The Central, comprising an area included in a radius of approximately 40 miles from the General Post Office; the North-Eastern; the Eastern; the North-Central; the North-Western, and Western. Cabinet sanction having been given to the appointment of District Health Officers, applications were called for at a salary of £700. No applications from qualified practitioners were received. Applications were again invited several months later, but still no qualified applicant applied. The Commission made representations to the Government in the matter of the salary offered, with the result that the maximum was increased to £850. Applications were called for on this basis, and several qualified applicants applied. Drs. G. Cole, C. P. Rowan, and R. W. Telford were selected and duly appointed.

Dr. J. Johnston, Senior Medical Officer, was appointed District Health Officer for the Central District; Dr. Cole was allotted the Western District; Dr. Rowan the North-Central District; and Dr. Telford the North-Western District. No appointments have yet been made for the Eastern and North-Eastern Districts.

District Health Officers are required by the Act—

- (a) to advise and assist medical officers of health and inspectors of councils;
- (b) to carry out medical inspection of and the promotion of the health of school children;
- (c) to ascertain by inspection and inquiry the health and sanitary circumstances of the health area, and report on same to the Commission;
- (d) to confer with councils and discuss matters relating to the public health.

Assistant Health Officers.—Three Assistant Health Officers have also been appointed—Drs. C. H. Johnson, C. R. Merrillees, and H. N. Featonby. Dr. Johnson has been placed in charge of the Venereal Diseases work; Dr. Merrillees is assisting Dr. J. Johnston in the Central District, which contains more than half of the population of the State; and Dr. Featonby has charge of infectious disease, including tuberculosis and industrial hygiene.

LOCAL ADMINISTRATION.

Medical Officers of Health.—In the appointment of Medical Officers of Health to the municipalities, it is regretted that the councils for the most part do not appear to recognise the necessity of giving reasonable remuneration to these officers, notwithstanding the importance and extent of the duties imposed by and under the Act. A circular letter was issued to all councils recommending what was, in the opinion of the Commission, a reasonable remuneration for these positions based on population and area.

Health Inspectors.—Section 33 of the Health Act provides, *inter alia*, that all inspectors who have held office for five years immediately prior to the commencement of this Act shall be deemed to have obtained a Certificate of Competency, and, consequently, a number of officers have been appointed health inspectors whose knowledge of the primary essentials of the position is very limited, with the natural result that regulations and requirements issued are very indifferently understood and observed, necessitating much supervision from the departmental staff.

The Act further provides that other inspectors in office immediately before the commencement of the Act shall within twelve months of such commencement obtain a Certificate of Competency. To allow of this, the Commission provided for the holding of examinations to enable these inspectors to qualify, but comparatively few availed themselves of the opportunity. Parliament, however, anticipating that hardship might arise if this provision were strictly carried out, provided that the position of inspector in any municipal district might be exempted by the Commission from the operation of this provision. Acting under this power, the Commission has reluctantly granted a number of exemptions.

Efficient safeguarding of the public health on the part of an inspector demands specialized knowledge, which can only be satisfactorily obtained by attending a properly-constituted course of practical instruction and demonstrations. The curriculum for such a course has been drawn up by the Commission, but so far the Victorian Branch of the Royal Sanitary Institute of London is the only body which has provided a course complying with such curriculum.

NUISANCES.

The attention of the Commission has been drawn to a large number of nuisances by individuals by petitions and by councils. The procedure followed in these cases is that laid down by the Act. The attention of the council in whose district the nuisance is alleged to have occurred is drawn to the complaint. This is followed up by inquiry and inspection, if necessary, to ascertain whether the nuisance has been abated. Where the alleged nuisance involves injury to health an inspection in conjunction with the local authority is made forthwith, and such action is taken as the circumstances warrant.

Smoke Nuisance.—Prior to the passing of the *Health Act* 1919, action in regard to the prevention of smoke nuisance had to be taken under statutory provisions. While there was no doubt as to the actual existence of a nuisance, there was no adequate machinery for securing the prevention, or even the abatement, of same. Under the powers conferred, the Commission secured the passing of regulations which provide councils with the necessary machinery for dealing with the nuisance. It is trusted that the councils will take full advantage of their powers in this respect.

As long as coal is used as a fuel in factories and houses there is bound to be a certain amount of nuisance from smoke. Smoke production can be diminished, but it cannot be abolished.

With the development of the Yallourn Scheme, and the general adoption of electricity as a motive force, there will be gradual diminution of smoke. The electrification of the metropolitan railways has already had a noticeable effect in reducing the volume of smoke in the metropolitan area.

GENERAL SANITARY PROVISIONS.

Refuse.—The Act provides that the council of every city or town shall, and the council of every borough or shire may, and (when required by the Commission) shall, undertake or provide for the collection, removal, and disposal of house and trade refuse.

It is very necessary that all refuse should be removed at least once weekly and properly disposed of. It has been the general practice in the past of disposing of refuse by the insanitary method of "tipping".

The Board of Public Health just prior to the War issued orders on several metropolitan councils to establish destructors. The advent of the War made it unreasonable for the Board to enforce these orders, consequently they were allowed to lapse. The Commission, having inquired into the circumstances, is of the opinion that destructors should be provided for dealing with the refuse of the more densely populated municipal districts without further delay, and is taking the necessary steps to secure this end. The councils of the cities of Melbourne, Prahran, Richmond, and St. Kilda have already provided destructors, and the councils of the cities of Kew, Hawthorn,

Malvern, and Camberwell have made arrangements to establish a common destructor. It is hoped that the example set by these cities will stimulate the councils of the other large municipalities to follow their lead.

It has been found from official inspection that the temporary storage of house refuse has in some cases been carried out in a most unsatisfactory manner.

The receptacles in use in a very large number of cases were found to be of a nondescript character. Owing to the outbreak of plague in Queensland and New South Wales, and the possibility of its introduction into this State, the Commission urged the municipalities to give special attention to the necessity for having properly covered receptacles to prevent rats gaining access to the refuse, with the result that an improvement is observable in this connexion.

NIGHT-SOIL.

Satisfactory disposal of night-soil from pan-closets has always been, and still is, a difficult problem. It is usually difficult to obtain suitable sites for disposal by earth burial reasonably close to centres of population. No matter where night-soil is deposited, hosts of objectors arise. Many councils are not fully seized of their obligations in respect of sanitary disposal. In some cases their only concern appears to be to have night-soil deposited outside of their boundaries. So far earth burial is the usual method of disposal. Desiccating appliances are available, but have not come into use, though they are used with success on the outskirts of Sydney.

It is desirable that experimental research work should be undertaken with a view to the reduction of night-soil to a dry, inoffensive, marketable manure at a reasonable cost. The Commission regrets that it has not funds available for such a purpose.

The sealed-pan system is in use in most of the larger centres of population, but some councils still obstinately cling to the filthy single-pan system. The Commission is of the opinion that the single-pan system should not be tolerated by any council. The Health Act provides that every sewerage authority shall undertake the collection, removal, and disposal of night-soil within its district. Owing to the lack of certain enabling powers, the Melbourne and Metropolitan Board of Works has not yet undertaken the duties imposed on it by the Act. It is understood that an amending Bill will be brought into the House this session to provide the necessary enabling powers. It is highly desirable that the necessary legislation should be passed as early as possible, as the conditions of disposal of night-soil produced on the outskirts of the sewered areas are very unsatisfactory.

Sewerage Schemes.—The Commission is pleased to note that the Geelong Sewerage Trust has made considerable progress with the reticulation of the city, and that the Bendigo Trust has completed the outfall sewer and has begun house connexions; that the Ballarat Trust has adopted a scheme and has begun operations; and that Colac council has adopted plans and is giving consideration to the necessary works.

The advantages of a sewerage scheme are so obvious that they do not require any demonstration.

It is hoped that the examples quoted will have the effect of stimulating other large centres of population to take the question into immediate consideration.

Septic Tank Systems and Chemical Closets.—The installation of septic tank systems in individual cases is increasing, but such can only be satisfactorily installed where sufficient land of a suitable nature is available for disposal of the effluent. Single installations are not practicable in centres of population. Chemical closets have recently been introduced, and a good number has been installed. Reports indicate that only some of these are acting satisfactorily. Difficulty has arisen in regard to satisfactory disposal of the contents of the receptacles; unless the directions are faithfully carried out, nuisance may occur.

OFFENSIVE WATER-COURSES.

The question of satisfactorily dealing with offensive water-courses has come prominently before the Commission, but no satisfactory solution of the difficulty is apparent at present. To remedy the offensive conditions involves considerable expenditure, but no effective provision is made under the Act for the raising of the necessary funds for the construction of drainage works.

The Maribyrnong River was, at a special visit of the Commission, found to be in a most filthy and nauseous condition, and, notwithstanding the evidence submitted to the Court through the officers of the Department, supported by that of the officers of an adjoining district, the prosecution ordered by the Commission of the parties concerned was unsuccessful. The authority of the State Rivers and Water Supply Commission has been obtained whereby the Commission is enabled to prosecute persons allowing putrescible matter to enter the river, and notices calling upon the parties concerned to take steps to prevent pollution have been served.

The condition of the Moonee Ponds Creek has been found unsatisfactory, and the question of remedying the condition is now receiving consideration.

As indicated, funds for drainage works and for maintenance of such works are necessary to secure satisfactory results. These works can be done only when the necessary legislative powers are provided.

POLLUTION OF WATER SUPPLIES.

Provision of a wholesome water supply for communities is of the utmost necessity for the preservation of health. The gathering grounds should be free from all sources of pollution. Where this is impracticable, the water should be efficiently filtered before entering the reticulation pipes.

As many complaints had been made regarding the quality of the water supplied through the Coliban System to Bendigo, the Commission inspected the watershed, the storage reservoirs, the conducting channels, and the service reservoirs near Bendigo.

The Commission is of the opinion that the water is not adequately protected against pollution in the catchment area at the storage reservoirs and along the conducting channels. The drainage of the township of Trentham is delivered on to land which naturally drains to the Coliban. The same condition of affairs obtains, but to a lesser degree, at Lauriston. The whole of the catchment area is used for agricultural and pastoral purposes, and the drainage therefrom reaches the storage reservoirs and contributes contamination. It is necessary that the drainage from Trentham and Lauriston should be prevented from entering the stream. The reservoirs and conducting channels should be ringfenced so as to prevent access of animals.

Notwithstanding these precautions, contamination must continue to occur as long as the watershed is used for pastoral and agricultural purposes.

To secure a wholesome supply of water for Bendigo, it is necessary that the water should undergo efficient filtration just before entering the reticulation pipes. The Commission has conferred with the State Rivers and Water Supply Commission and discussed these questions, with the result that steps have been taken to improve the quality of the Coliban supply.

From the information available, it would appear that many communities living near streams take little or no precaution against contamination of the water provided they can draw their supplies above the site of pollution. Little or no consideration is given to the needs of communities settled lower down the stream.

The Commission fully realizes the necessity of keeping all public water supplies under constant surveillance and for bacteriologically and chemically examining samples from time to time, but regrets that it has not the laboratory facilities for carrying out such examinations.

OFFENSIVE TRADES, DANGEROUS TRADES, AND CATTLE SALEYARDS.

Regulations for the putting into full force the provisions of Part V. of the Health Act are now receiving consideration. The Commission paid official visits of inspection to the Melbourne City and Richmond City Abattoirs, and all the abattoirs and offensive trades in the metropolitan area have been periodically visited and inspected by the medical staff and also by the inspectors. The conditions generally were found satisfactory.

In the country districts such a satisfactory state of affairs does not exist, and efforts are being made to improve the general sanitary conditions.

The majority of rural slaughter-houses are primitive constructions, without proper sanitary adjuncts. It has been necessary in many cases to take legal proceedings concerning the insanitary condition of premises, and for feeding swine on raw offal.

On the 8th September, 1920, an appeal by aggrieved parties against the rebuilding of the offensive trades premises of Messrs. J. Cockbill and Co., Smithfield-road, city of Melbourne, was heard, and evidence of medical officers of health, inspectors, and also engineers, both for and against, was submitted. After an inspection of the site, the Commission found that, as it was a matter of rebuilding burnt-down buildings rather than erection of new trades premises, the appeal should be dismissed.

The Commission has given the question of a metropolitan offensive trades area serious thought, and recommended that, in its opinion, the time had arrived when the Government should give earnest consideration to the advisability of removing all such trades to Laverton, which a Special Board of Inquiry had so strongly recommended as late as 11th November, 1919, as a most suitable district for the assembling of trades of this nature. By direction of the Honorable the Minister of Public Health, the question was listed for Cabinet consideration on 22nd December, 1921, but since that date no further information as to the Government's intention has been made available. It is highly desirable that a decision should be arrived at as early as possible. If it be decided that the existing trade premises should remain, the Commission will take action forthwith to bring them all up to proper sanitary standards. It would hardly be reasonable to enforce extensive alterations if the security of tenure is doubtful.

DANGEROUS TRADES.

The provisions in the Act relating to dangerous trades are new. The sanitary conditioning of dangerous trades premises is essential for the health of the employees. While some trade processes, such as those associated with white lead and yellow phosphorus, are known to be dangerous to the workers therein, there are others which are suspected of being harmful, but in relation to which sufficient data have not been obtained to draw definite conclusions.

The first essential is to obtain definite information as to the effect on health. The basis of this is notification in regard to illness arising out of the processes involved in carrying out the various classes of work.

The Commission has had this matter under consideration, but has deferred further action pending the issue of the report of the forthcoming Commonwealth and Inter-State Conference on Industrial Hygiene.

INFECTIOUS DISEASES.

The Act provides that councils singly or in concert shall make provision for the accommodation and treatment of persons suffering from infectious disease. Councils are entitled to receive a moiety of the costs and expenses in so providing from the Government.

The metropolitan councils have combined, and have provided the Queen's Memorial Infectious Diseases Hospital at Fairfield for the reception of patients. This hospital can accommodate nearly 600 patients, and is the largest hospital in Victoria. While the hospital, so far, has been able to satisfactorily deal with all demands, it could not do so if there was an extensive epidemic of one disease or undue prevalence of two or more diseases. Under present conditions, only about one-half of the notified cases of diphtheria seek admission. If every case sought admission the supply of beds would not suffice at the height of the epidemic.

Infectious diseases hospitals differ from general hospitals in that the daily number of cases fluctuates according to the prevalence of disease, which has seasonal variations. The population of Melbourne is growing and will continue to increase. The Queen's Memorial Infectious Diseases Hospital caters now for a population of nearly 800,000. The ratio of beds to population is lower than that of British cities.

No proper hospital accommodation is available in the State for dealing with any emergency epidemic of infectious disease, and the Commission shortly after its appointment strongly recommended that such provision should be immediately made.

To meet this necessity it was decided by the Government to erect certain temporary pavilions as an adjunct to the Q.M.I.D. Hospital at Fairfield, but which in the opinion of the Commission would not have been entirely satisfactory. These pavilions, however, were never erected, and as the Government had decided in the meantime that any such provision to be made must be provided by the municipalities, the Commission suggested that the Caulfield Military Hospital might be acquired for the purpose, and pointed out that not only would this provide the necessary emergency accommodation, but would at the same time provide additional accommodation for ordinary cases of infectious disease, which would be required in the near future, and in this latter respect by being south of the Yarra had additional advantages from the point of view of economy and convenience, and at the same time the initial cost to the municipalities would be only a fraction of the cost of erecting new hospitals.

The metropolitan councils have been circularized by the Commission, pointing out the necessity for taking action in the matter, and, although delegates from the interested councils have met in conference and realize that further accommodation will be required in the near future for ordinary infectious cases, it is doubted whether they fully appreciate the necessity that immediate provision be made for dealing with emergency epidemics, possibly still being of opinion that such provision would be made by the Government, which is not the case. It must be fully realized that there is no Government hospital where emergency epidemic diseases can be dealt with.

Most of the rural centres of population have made provision for the accommodation of infectious cases at the local hospitals.

Councils contributing to the maintenance of cases at the Queen's Memorial Infectious Diseases Hospital are prohibited by legal enactment from recovering the costs from patients treated thereat, whereas costs may be recovered from patients (or their guardians) treated at any other hospital provided by a council.

Plague.—Owing to the outbreaks of plague in Queensland and Sydney, Victoria has been threatened with an invasion of that disease. On learning of the existence of plague in Queensland, the Commission drafted a set of emergency regulations which empowered councils to take the necessary precautionary measures, which, in conjunction with the vigilance exercised by the Commonwealth Quarantine Department, have so far been successful in warding off attack. Safety in regard to this disease depends on ceaseless war against rats.

Diphtheria.—With the aid of special funds provided by the Minister, the Commission was enabled to carry out "swabbing campaigns" in Bendigo and Tallangatta. The result of these campaigns was to materially reduce the prevalence of diphtheria in these places, with consequent reduction in total cost of maintenance of cases. These experimental campaigns demonstrated that money spent in this way was true economy. Details of this work will be found in the body of the report.

No provision is made in the Act for any one Central Authority dealing with the initial outbreak of any emergency epidemic of infectious disease, such as plague, smallpox, &c.

The responsibility for dealing with any such cases under the Act, as already mentioned, rests with the municipalities, and the Commission is only empowered to act where the municipalities fail. It is impracticable for councils to take individual action until the outbreak actually arrives, and then it is too late.

Experience in the past demonstrates the necessity of having all the necessary machinery immediately available for coping with an epidemic. Epidemics appear without preliminary warning, and spread alarmingly. This was well shown by the recent influenza epidemic. Either the Commission should be provided with the necessary powers and equipment or the municipalities—especially the metropolitan municipalities—should form infectious diseases "unions," and take the necessary action to be in a position to cope with any epidemic that may arise.

The acquisition of the Caulfield Military Hospital or the provision of an emergency epidemic hospital, as recommended by the Commission, would to a great extent overcome the difficulty as far as the metropolitan area is concerned, but would still not provide all the necessary machinery for dealing with such an outbreak.

Tuberculosis.—The Commission has carefully considered the problem of combating tuberculosis, and is of the opinion that in order to secure any noticeable reduction in the prevalence of the disease, it is essential that the scheme as outlined in the body of the report should be carried out. The Commission realizes that tuberculosis is the principal cause of invalidity in the State, and consequent economic loss. It is, therefore, believed that it would be true economy to put the whole scheme into operation forthwith. If for financial or other reasons this is impracticable, and it is necessary to develop the scheme gradually, the Commission recommends that immediate consideration be given to the following matters:—

Accommodation for Advanced Cases.—At present the available accommodation for advanced cases is 146 beds (including 40 beds for military cases) at the Austin Hospital, and 129 at Heatherton Sanatorium. At least another 100 beds are required.

Advanced cases act as foci of infection, and it is essential, where the sanitary environment is unsatisfactory, that, in the interests particularly of the other inmates of the house and of the public generally, these centres of infection should be removed to a suitable institution.

Industrial Sanatorium.—It is recommended that an industrial sanatorium for the reception of 200 cases be established. Under present conditions the existing sanatoria for early cases cannot serve this purpose.

Patients cannot under existing arrangements be kept sufficiently long in a sanatorium to effect a cure. Considerable improvement usually results, but a breakdown almost invariably follows when the ordinary vocation is resumed.

If an industrial sanatorium were provided, many cures would be effected.

It is preferable to have separate sanatoria for the sexes, but it is conceded that one sanatorium can be maintained at a relatively cheaper rate per bed than two aggregating the same number of beds.

The proposed industrial sanatorium should preferably be situated to the north of the Dividing Range.

Receiving Sanatorium.—If increased accommodation is provided for advanced cases, and an industrial sanatorium is established, a receiving sanatorium of 100 beds would suffice. The receiving sanatorium should be within easy access of the city. If the McLeod Sanatorium could be made available it would probably suffice; it is fairly accessible, and water and electric light are available. Its proximity to Mont Park Asylum enables arrangements to be made whereby maintenance costs may be reduced.

If Greenvale Sanatorium is to be retained, the following requirements are necessary:—

- (a) An improved water supply providing for storage of at least 350,000 gallons.
- (b) Improved sanitary system and proper lighting should be installed.
- (c) Improved transport.
- (d) Recreation hall.
- (e) General repairs and better furnishings and equipment.

Receiving Wards.—A receiving ward of 16 beds is necessary at one of the metropolitan hospitals for the accommodation of acute cases.

As the metropolitan hospitals do not take in cases of tuberculosis under present conditions, a special subsidy is recommended for the purpose.

Expenses.—As the campaign against tuberculosis is in the interests of the State rather than the municipalities, it is considered equitable that the expenses of maintaining sanatoria should be borne by the taxpayer rather than the ratepayer.

The expenses of carrying out preventive measures in respect of tuberculosis might reasonably be borne by ratepayers. At present Amherst and Greenvale Sanatoria are maintained by the general taxpayer. Heatherton Sanatorium is maintained jointly by the taxpayer and the ratepayers of the metropolitan area.

The expenses at Austin Hospital are mainly borne by voluntary subscriptions and by Government contributions.

VACCINATION.

The inclusion of the "conscientious clause" in the *Health Act 1919* has had the effect of considerably decreasing the number of vaccinations performed. The table below shows the ratio of vaccinations to births for the past four years:—

Year.	Births.	Vaccinations.	Percentage of Vaccinations to Births.	Declarations.	Parents Fined.
1918	31,601	15,311	48·45	..	5,752
1919	31,621	14,031	44·37	..	7,852
1920	36,214	4,396	12·13	22,633	2,865
1921	35,593	3,915	11·0	21,464	4,488

During the period 1875–1900 the percentage of children vaccinated compared with births was 72.

The Commission is strongly of the opinion that efficient vaccination protects against small-pox. The efficacy of vaccination was well demonstrated in the case of the seaman suffering from small-pox admitted to the Melbourne Hospital from the *s.s. Gracchus* on 9th April, 1921.

The only persons who acquired small-pox from this case were two contacts who were not vaccinated. None of the vaccinated contacts acquired the disease.

If compulsory vaccination is not restored it is recommended that vaccination be made entirely optional, as the expenses incurred in carrying out the vaccination provisions of the present Act—to say nothing of the time spent and trouble incurred by the police—are altogether disproportionate to the protection of the community secured.

PRIVATE HOSPITALS.

Prior to the coming into operation of the *Health Act 1919*, private hospitals were registered and supervised by councils. They are now registered and supervised by the Commission. Special provision is made in the present *Health Act* for the exemption from prescribed requirements of hospitals in districts where the circumstances are such as to render it expedient to do so. Under the preceding Acts no elasticity was permitted.

The Commission has given a very liberal interpretation to this provision, and premises have been registered which fall short of the full sanitary requirements. It is realized that it is to the convenience and advantage of patients living on farms far from the doctor to be able to come into the township where he is settled, even though the available accommodation is unsatisfactory from the sanitary point of view. The Commission realizes that this is a passing phase coincidental with the development of the State.

Up to 30th June, 1921, 476 private hospitals, 281 of which contained five or more beds, and 195 with less than 5 beds, were registered.

The Regulations which came into force on the 19th May, 1921, provide, *inter alia*, for the reception into private hospitals of cases of infectious disease, subject to certain safeguarding conditions.

Systematic inspections of all private hospitals in the State are in progress, and the inspections made so far reveal in many instances inadequate ventilation, absence of the means of fire extinction, and a tendency to overcrowd. Attention is being called to these defects, and re-registration will be subject to the conductors complying with these requirements and bringing their premises up to reasonable sanitary standards of efficiency.

PUBLIC BUILDINGS.

The total number of public buildings coming within the Commission's jurisdiction throughout the State is 6,173, but of these only theatres, opera houses, concert, music, assembly, or cinematograph halls, skating rinks, arenas, amphitheatres, circuses, and grandstands or permanent erections on race-courses, cricket, football, and show-grounds, are registrable.

Municipally-owned buildings, public hospitals and charitable institutions, churches, halls for public worship, Sunday schools, and friendly societies' halls used only for club purposes are exempt from registration.

Public buildings to the number of 1,415 have been brought under the Registration Regulations, but there are still a number of country halls and race-course bodies which have failed to comply with these regulations, and final notices have been sent to those responsible, with an intimation that failure to comply will necessitate proceedings being instituted against them.

Plans and specifications, however, of all classes of public buildings must be submitted for the Commission's examination and approval before the work of erection is commenced, and the supervision of the erection is carried out by the Commission, which also issues approval to the opening when the building requirements have been complied with in a satisfactory manner.

Much of this work was, prior to the coming into force of this Act, performed by the municipalities, but the latter have now been relieved of the work of supervision.

Boardinghouses.—Part X. of the Act provides for the registration of boardinghouses by the municipalities, and regulations regarding the number of persons to be accommodated, drainage, sanitary conveniences, cleanliness, &c., have been under consideration and submitted to the councils for suggestions and criticism.

The provisions in the Health Act relating to boardinghouses are the outcome of numerous complaints made chiefly in respect of those boardinghouses which cater for the public at the various health resorts.

Considerable difficulty has been experienced by the Commission in framing regulations suitable to urban and rural conditions, and which will secure reasonable comforts for guests without pressing unduly on the owners and occupiers. The demand for accommodation in the various health resorts has of late been greater than the supply; consequently, the tariff has been greatly increased—in fact, increased to such an extent as to justify the provision of accommodation of a fairly high sanitary standard. When there is a demand for any commodity, competition usually reduces the price of same. Owing, however, to the shortage and high price of building materials, the supply of boardinghouses has fallen short of the demand, with the result that patrons of these establishments have to "take or leave it."

Under these circumstances the Commission has framed the regulations on a rather more liberal basis than sanitary standards demand, but it is realized that when normal conditions return, the regulations must be revised.

By official inspection it was also found that a large number of boardinghouses in the metropolitan area were very much overcrowded, and a grave source of danger to health existed by the allowance of so-called "kitchenettes" being used without any provision whatever for carrying off gaseous fumes from cooking stoves, &c. Provision is made in the regulations for remedying this condition.

FOOD, DRUGS, ETC.

The effect of the legal enactments relating to food and drugs has been of great benefit to the consumer. In the absence of standards, competition resulted in the degradation of the quality. This was greatly to the disadvantage of the trader who produced good quality commodities. With the standardization of foods competitors were placed on a level. Reduction of price under these circumstances is due to more economical manufacture and management, and not due to reduction in quality as previously obtained.

It is very desirable that in regard to goods which are subject to Inter-State exchange there should be uniformity in respect to standards.

This want of uniformity has been a great source of trouble and expense to traders. We are pleased to learn that a Conference of the Commonwealth and States will be held shortly with a view to arriving at uniformity.

Details of food supervision will be found in the body of the report.

MEAT SUPERVISION.

The effect of the *Meat Supervision Act* 1900 has been of great benefit in improving the meat supply of meat areas. Prior to the passing of this Act there was no examination by independent inspectors of animals killed for human consumption; consequently there was nothing to prevent diseased meat being sold.

Under existing law no carcass or meat may be removed from an abattoir or a meat inspection depôt in a meat area until it has been examined, passed and branded by a meat inspector. Meat areas have been proclaimed for Ballarat, Bendigo, Geelong, and Warrnambool, in addition to that for the metropolitan area.

There is no sufficient reason why all the larger centres of population should not have their meat supplies similarly safeguarded.

The weak link in the chain of protection of the consumer is the provision for sending carcasses to a meat inspection depôt. The risk in regard to calves is small and may be accepted, but not so in regard to cattle and pigs. Practically speaking, no mutton is sent to meat inspection depôts.

A carcass may be permeated with the toxins and germs of disease, and yet give little or no indication. Veterinary pathologists are agreed that in order to pass judgment as to the wholesomeness of meat it is essential that the animal be inspected alive, and the viscera examined at the time of slaughter.

It has been argued by persons concerned that the provisions of the Act and Regulations designed to protect the consumer are unduly harsh on the stock raiser and the meat salesman, as they may be subjected to monetary loss if the law is strictly carried out.

The primary object of the Act is to protect the consumer, not the stock raiser or meat salesman.

Notwithstanding the fact that the Meat Supervision Act has been in force since 1900, there still remains considerable misapprehension on the part of the public as to what body carries out the actual inspection of meat.

While the general administration of meat supervision is under the Commission, yet the control and inspection is in the hands of councils. Meat inspectors are appointed by councils, with the approval of the Commission. The funds for paying the expenses of meat supervision are derived from fees for inspection and branding.

REGULATIONS.

The Commission has drawn up nineteen sets of regulations, which have received the approval of the Governor in Council, and five more sets are in varying stages of completion.

The great majority of these are consolidations and amendments of existing legal provisions scattered about in regulations and repealed Statutes. Much time has been consumed in considering analogous provisions in Australian, British, and American enactments. It has been the aim of the Commission to include only such provisions as are capable of being carried out in practice and which have stood the test of experience. Copies of the various drafts are sent to the councils at least six weeks before final consideration, but few practical suggestions have been received, although adverse criticism has been made after the regulations have been in operation.

The Commission is empowered to make model by-laws for the guidance of councils, but these cannot be attempted until the essential regulations are completed.

The Commission desires to place on record its appreciation of the services rendered by Mr. D. Grant, of the Law Department, in drawing up the various regulations, proclamations, and orders under the Act.

ENFORCEMENT OF ACT.

Although Parliament made special provision in the Act for the recovery of full costs of prosecution, together with all expenses incurred in examination, inspection, analysis, &c., some adjudicating justices appear to think that as the officers concerned are either public servants or in the service of a municipality full costs should not be granted. They do not appear to realize that if they allow full costs they relieve the taxpayer of a corresponding contribution.

Adulteration of food is not considered by many justices in this State as of such serious importance as the Courts do in the other States, and in Britain and America.

LEGISLATIVE AMENDMENTS.

The experience gained in the administration of the Act indicates that it is desirable that some amendments should be made.

Piggeries.—The Act provides that one or more pigs kept for purposes of trade constitutes a "piggery," and a piggery is an "offensive trade" subject to all restrictions applicable to such trades. Consequently, a farmer who keeps two or three pigs has to register his pigsty as an offensive trade premises.

The Commission is of opinion that the expression "piggery" should not include the pigsty of a farmer who keeps a pig or two to consume his waste food.

Fish Shops, Butchers' Shops.—There is no restriction as to control of such places as fish shops and butchers' shops. No matter how well such places are conducted, if the shop is not specially situated, sanitarily maintained and adequately ventilated conditions verging on nuisance arise.

It is recommended that such places should be registered, and that registration should depend on suitability of site and construction of building.

Reasonable Precautions—Section 250.—Provision is made in the Act that when a person takes all reasonable precautions to protect himself against committing an offence as regards food he shall be exempted from any penalty.

It is specially provided that in the case of milk reasonable precautions include analysis.

In several cases analysis once weekly has been sufficient to secure dismissal. In effect, this means that a milkman can water his milk six days a week, provided it is up to standard on the seventh day.

It is recommended that the Act be amended so as to prevent the consumer from being exploited.

GENERAL.

It is generally accepted by the public that the Commission is a body analogous to the Railway Commissioners, and has sole control of the Department, its staff, and its activities.

As a matter of fact, the Commission has no control over any officer of the Department nor over any funds.

The Commission can only act by way of resolutions which are transmitted to the departmental head, who may not be able to give effect to such resolutions. If the giving effect to such resolutions involves the expenditure of any money not specially included in the Estimates, the departmental head cannot proceed further with the matter.

The Commission is occasionally adversely criticised for not carrying out certain measures which are considered necessary for the welfare of the community.

These measures may or may not be considered of importance by the Commission, but in any case the Commission has not the power, or if it has the power, it has not the staff, equipment, and funds to carry out such measures.

As the Commission is popularly saddled with the responsibility of doing all that is considered necessary for the safeguarding of the public health, and is extensively criticised (usually on incorrect data), the Commission recommends the Government to take into consideration the question as to vesting it with real responsibility, which would necessarily carry with it real control of staff.

However, while the present method of administration exists, it is suggested that the Commission should have some effective voice in framing the Estimates of the Department.

The Commission is of the opinion that the inclusion in the Health Estimates of such items as the expenditure incurred in maintaining the Queen's Memorial Infectious Diseases Hospital, and other hospitals, conveys an incorrect impression to the public of the spending capacity of the Commission and the Department. The total expenditure of the Health Department is considerably swelled by the inclusion of these items, and in the popular mind all expenditure of the Department is set down as administrative. It is recommended that all moneys included in the Health Estimates in connexion with the treatment of diseased persons should be transferred to the Hospital Vote, to which they properly belong.

Much of the time of the Commission is taken up in routine work which, when the regulations are completed, could be delegated to the Chairman.

The Commission could be of much more service to the community if it were provided with greater facilities for making itself more familiar with the general conditions of the community and for carrying out investigation and research as may be considered necessary and the requisite funds made available therefor, and if it were enabled to give more practical assistance to the councils in carrying out the duties and responsibilities imposed by and under the Act.

The Commission realizes that health legislation is of little avail unless the councils and the public cordially co-operate with the Commission to give effect to it. The principal reason why many councils are lax in carrying out hygiene and sanitation is that the councillors and the public do not realize the necessity for so doing. Now the only way to secure such co-operation is to demonstrate that co-operation is essential for the welfare of the people.

Hygiene opens up an illimitable field of work, and the teachers must be taught before they can satisfactorily undertake instruction; hence the necessity for experimental and research work on the part of the Commission.

An important function of the Commission is the education of the public. This should be carried out by the publication and distribution of suitable literature having as its aim the promotion and maintenance of health. Even the biograph may be put to good use in this direction.

Now that the District Health Officers are about to take up duty in their several districts, the Commission will be in a position to extend more practical help to the councils than has been possible in the past.

The Commission desires to emphasize the necessity for providing adequate and suitably arranged offices. The existing offices, though possessing considerable floor area, are so badly arranged that proper use cannot be made of them. The building was designed as a depository of records, and doubtless for this purpose it is admirably suited. It is not, however, a suitable building for carrying on the work of the Commission, which is continually expanding.

Owing to the Department having to deal directly with infectious diseases, it is desirable that it should be housed in a completely detached building.

The Commission recommends that a bacteriological laboratory be established in connexion with the Department, also that suitable arrangements be made by way of subsidy with certain hospitals in the several more important country centres to carry out similar work and thus overcome the disadvantage of undue delay in forwarding specimens to Melbourne. Such laboratories are essential adjuncts to every Health Department, and are powerful weapons in attacking the strongholds of disease.

We would again urge consideration to our recommendation that the position of Secretary should be raised in classification to be in line with the Secretaries of the other Departments of the State. The duties required of this officer are onerous, arduous, and of great responsibility, including, under the Chairman, the administration work of the whole of the Department, and thereby supervision of all the municipalities throughout the State.

All of which is respectfully submitted.

E. ROBERTSON, Chairman.

J. H. CURNOW.

JOHN HANCOCK.

W. S. NEWTON.

B. A. SMITH.

WALTER SUMMONS.

R. de C. WILKS.

T. DIMELOW, Secretary.

Public Health Department,
Offices of the Commission,
Melbourne, 5th December, 1922.

DIVISION 1.

INFECTIOUS DISEASES.

Under the *Health Act 1919*, Infectious Disease means any disease (other than venereal disease) or infective condition which is communicable from any person or animal suffering therefrom to any person whether directly or indirectly or through the intermediary of a host, and includes—

Anchylostomiasis, anthrax, bilharziasis, cholera, cerebro-spinal meningitis, diphtheria, dysentery (bacillary), dysentery (amœbic), encephalitis (lethargic), hydatids, influenza, leprosy, malaria, measles, plague, poliomyelitis, polioencephalitis, puerperal fever, scarlet fever, small-pox, tetanus, tuberculosis, typhus fever, typhoid fever, whooping cough, yellow fever.

Those diseases printed in italics are also notifiable infectious disease.

The notifiable infectious diseases most prevalent in this State are Diphtheria, Scarlet Fever, Typhoid Fever, and Tuberculosis.

DIPHTHERIA.

The table following shows the number of reported cases and registered deaths, and also the percentage of case mortality for the last eleven years :—

Year.	Cases.	Deaths.	Mortality.
			per cent.
1910	2,415	112	4.63
1911	5,120	237	4.62
1912	5,289	257	4.85
1913	5,367	245	4.56
1914	4,868	211	4.33
1915	4,463	203	4.54
1916	5,377	266	4.94
1917	4,092	154	3.76
1918	6,568	211	3.21
1919	4,007	211	5.26
1920	6,458	276	4.27
1921	9,458	275	2.90

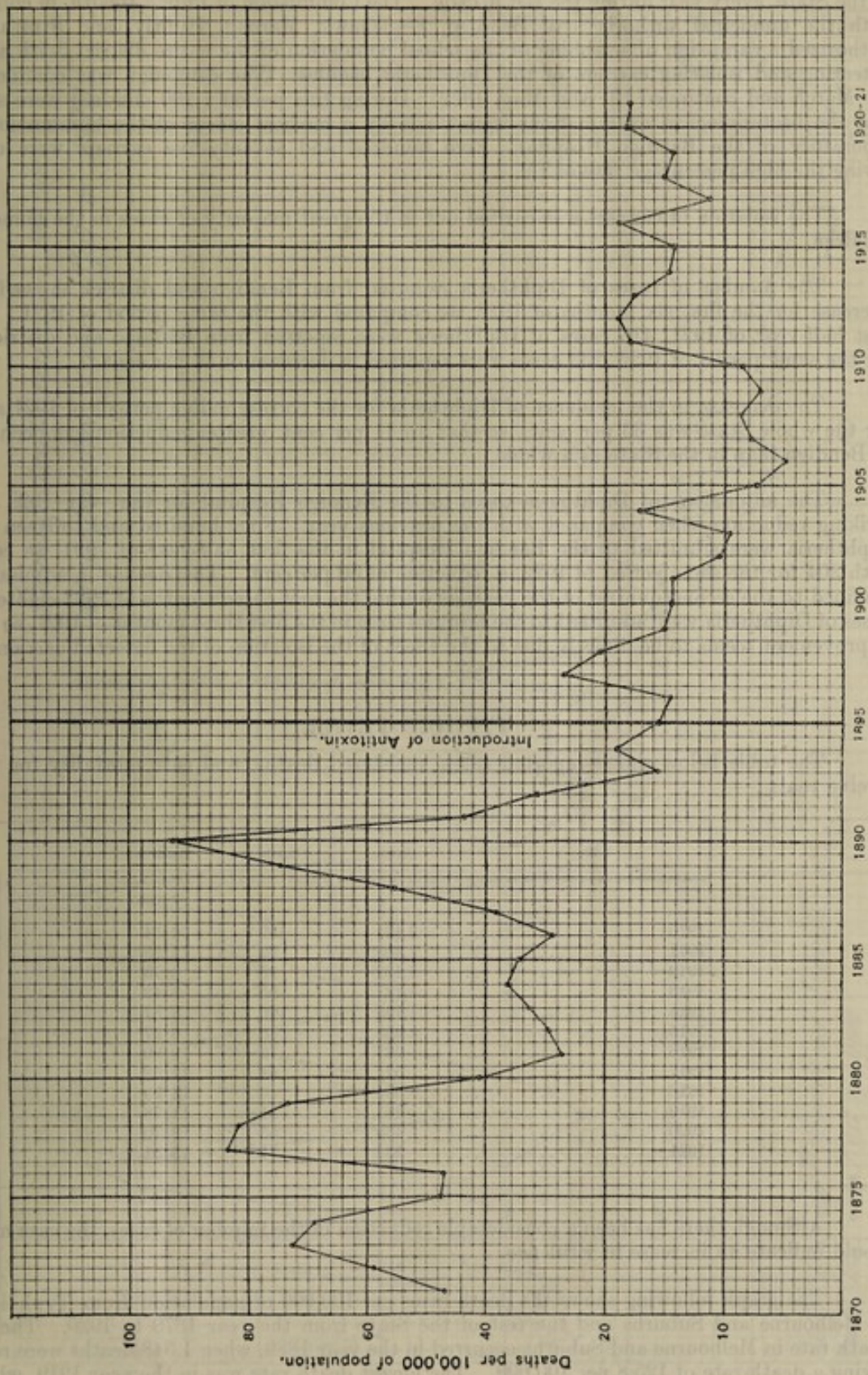
The following graph shows the death rate from Diphtheria per 100,000 of population in Victoria for the last 50 years, and can conveniently be divided into two equal parts, by the year 1895 in which antitoxin was introduced. The highest death rate recorded was in the year 1890, when 1,031 deaths occurred, giving a death rate of 92.2 per 100,000 of population. The lowest death rate was reported in the year 1906, when only 58 deaths occurred, giving a death rate of 4.7 per 100,000. The average death rate for the years 1870 to 1895 is 47.8 per 100,000, and from 1895 to 1920, 13.9 per 100,000. It will be noted that the fall in the death rate began prior to the use of antitoxin.

DIPHTHERIA IN THE SHIRE OF TOWONG.

In April, 1921, a medical officer of the Commission, at the request of the Shire of Towong, was sent to report and advise as to measures to be taken to lessen the incidence of Diphtheria which had been endemic in the shire for many years. A campaign of swabbing with local bacteriological examination of the swabs of the school children was undertaken. Five hundred and thirty children were examined, and ten carriers detected and isolated in the Infectious Diseases ward at the Tallangatta Hospital. The results attained appear to be very satisfactory. From 1st January to 30th April, 1921, there had been 58 cases of Diphtheria reported in the shire. After the completion of the campaign, only six cases were reported up till December 31st. From 1st January to 31st July, 1922, only ten cases of Diphtheria have been reported from the Shire of Towong.

DIPHTHERIA IN VICTORIA.

Showing death rates per 100,000 of population from 1870 to 1920.



DIPHThERIA IN BENDIGO.

The incidence of Diphtheria in Bendigo has been uniformly higher than the general rate of the State every year during the last decade. The Commission of Public Health, in conjunction with the municipal authorities of Bendigo, Eaglehawk, Marong, Huntly, and Strathfieldsaye authorized a campaign of swabbing of the school population of the entire district, with a view to detecting and isolating carriers of the Diphtheria bacillus. The campaign was commenced on 1st March and continued till 31st May, 1922. During this period 7,200 children were swabbed, and the bacteriological examinations were made by a medical officer of the Commission in the laboratory of the Bendigo Hospital. Five hundred and seventy-five carriers were detected, giving the high percentage rate of 7.9.

The isolation of carriers was carried out in the great majority of cases in the homes of the children.

The number of cases of Diphtheria reported from Bendigo and district showed a large decrease for the first six months of 1922, as compared with the same period of 1921. For the first half-year of 1921, 416 cases of Diphtheria were reported from Bendigo and district, while for the same period of 1922, 233 cases were reported, a decrease of 44 per cent.

The decrease in the incidence of Diphtheria for the corresponding periods of 1921 and 1922 for the whole State was 33 per cent., so that an 11 per cent. greater reduction has been effected in Bendigo than in the State as a whole.

The admissions of Diphtheria cases to the Bendigo Hospital for the year 1922 show a striking reduction when compared with the previous year. Four hundred and thirteen cases of Diphtheria were admitted to the Bendigo Hospital in the first half-year of 1921, as compared with 204 for the same period of 1922, a reduction of 50 per cent. This decline in admissions was confined to the second quarter of the year, as during the first three months of 1922 eighteen more cases of Diphtheria were admitted to the hospital than in the first three months of 1921, so that the improvement seems to be directly due to the effect of the isolation of the detected carriers.

TYPHOID FEVER.

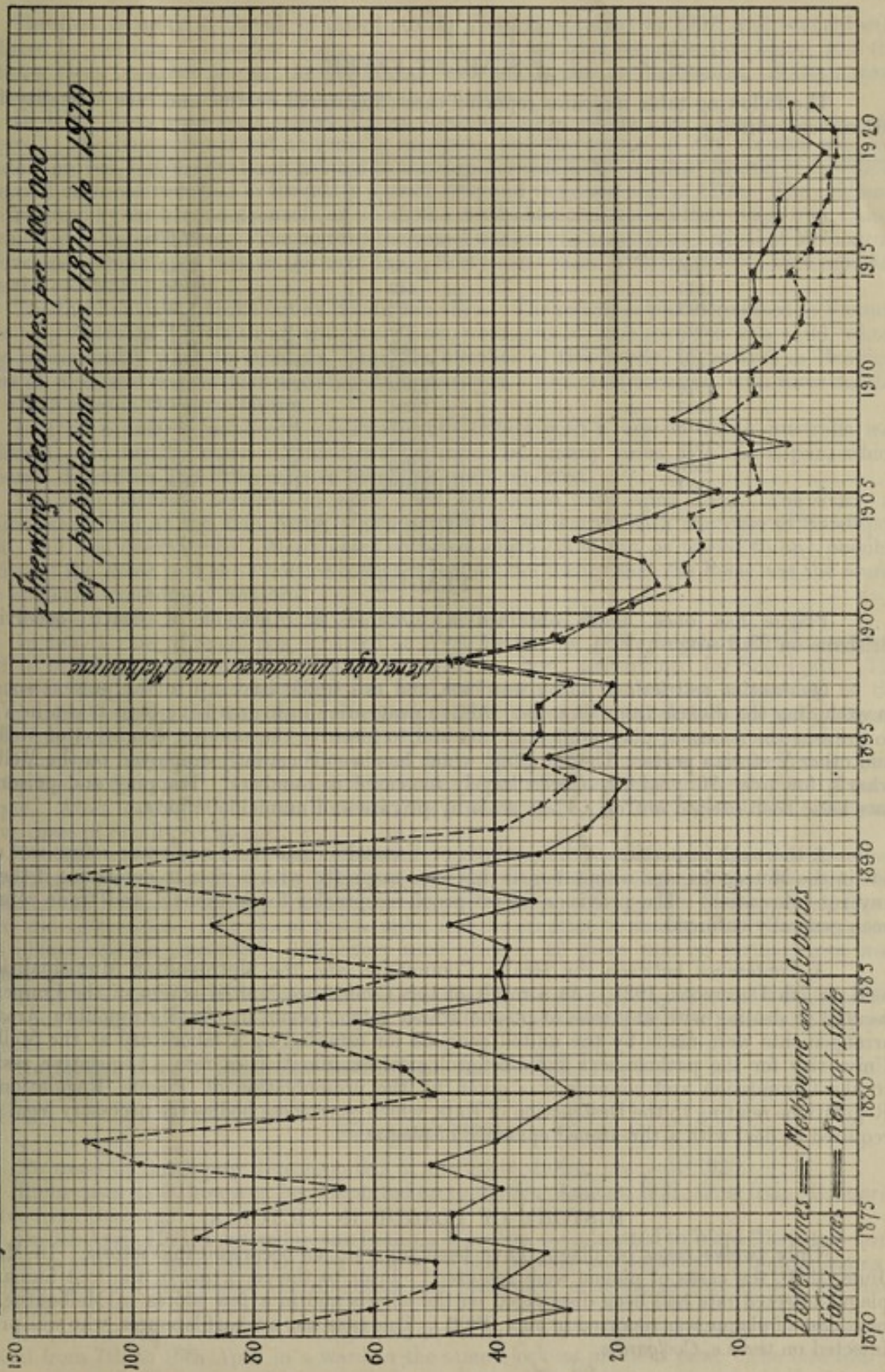
The table below shows reported cases, registered deaths, and case mortality for the past twelve years :—

Year.				Cases.	Deaths.	Mortality.
						per cent.
1910	..	..	..	2,124	139	6.54
1911	..	..	..	1,303	95	7.28
1912	..	..	..	1,122	98	8.73
1913	..	..	..	1,127	95	8.42
1914	..	..	..	1,195	106	8.87
1915	..	..	..	958	86	8.97
1916	..	..	..	727	72	9.90
1917	..	..	..	571	64	12.52
1918	..	..	..	354	46	12.99
1919	..	..	..	263	31	11.78
1920	..	..	..	433	55	12.70
1921	..	..	..	532	71	13.34

Although there has been a considerable reduction in the number of cases, the case mortality would indicate an increase in virulence.

The graph following shows the death rates per 100,000 of population from Typhoid Fever in Melbourne and Suburbs and the rest of the State from the year 1870 to 1920. The highest death rate in Melbourne and Suburbs occurred in the year 1889, when 1,348 deaths were reported, giving a death rate of 125.8 per 100,000. The lowest death rate was in the year 1919, when only twelve deaths were reported in Melbourne and Suburbs, giving a death rate of 1.6 per 100,000. In 1898 sewerage was effectively introduced into Melbourne. Prior to that date, as the graph shows, the Typhoid mortality rate was consistently higher in Melbourne and Suburbs than in the rest of the State, but since the introduction of sewerage the mortality rate of Melbourne, with

TYPHOID FEVER in VICTORIA



the exception of the year 1907, has been consistently below that of the rest of the State. The graph indicates that in 1889 conditions common alike to the Metropolitan Area and the rest of the State began to operate, resulting in a reduction of the prevalence of the disease.

SCARLET FEVER.

The following table indicates reported cases, registered deaths, and case mortality for the last eleven years :—

Year.				Cases.	Deaths.	Mortality.
						per cent.
1910	..	..	..	1,154	28	2·42
1911	..	..	..	442	4	0·90
1912	..	..	..	492	6	1·21
1913	..	..	..	243	6	2·46
1914	..	..	..	389	2	0·57
1915	..	..	..	754	12	1·59
1916	..	..	..	1,566	29	1·85
1917	..	..	..	1,994	32	1·60
1918	..	..	..	2,572	40	1·55
1919	..	..	..	1,763	35	1·98
1920	..	..	..	2,259	36	1·59
1921	..	..	..	2,816	19	0·67

PLAGUE.

Plague has once again obtained a foothold in Australia, a death occurring in Brisbane on 23rd August, 1921.

Quarantine restrictions on outward sea and rail traffic have up to the present succeeded in excluding the disease from Victoria. Active preventive measures have been taken in Victoria to prevent the access of plague-infected rats and to improve the sanitary condition of Melbourne and other Victorian ports. The rat gang, which has been constantly employed on the Melbourne wharfs for over 20 years, has been largely increased in numbers. Trapping and poisoning of rats have been carried out on a large scale by private and municipal efforts.

A thorough inspection of the methods of disposal of household and trade refuse was carried out in the Metropolis, and all municipal tips were inspected with a view to determine if there was any rat infestation. The provision of rat-proof receptacles for household and trade refuse has been generally enforced.

A Conference between the Health Commission and the Metropolitan Municipalities was held on 7th December, 1921. As a result of this Conference, united action of the Councils was secured in dealing with any case of plague which might occur in the Metropolitan Area, and arrangements were made by the united councils for establishing a laboratory at the Melbourne University for the pathological and bacteriological examination of rats. Legislative assistance to the Commission and councils was given by the promulgation of Plague Regulations and Regulations relating to the Destruction of Rats, which gave these bodies the necessary legal powers required to deal with a threatened epidemic of plague.

HISTORY OF PLAGUE IN VICTORIA.

Only twelve cases of plague have been reported as occurring in Victoria. In May and June, 1900, ten cases of plague were reported. Prior to the reporting of the first human case, plague-infected rats had been discovered on the wharfs and in a few stores in Melbourne. The next case of plague was reported in May, 1902. This case was a wharf labourer, who was probably infected on the s.s. *Coolgardie*.

Five years later, in May, 1907, a steward on the s.s. *Arawatta* was found to be suffering from plague. This patient probably acquired his infection on shore in Sydney. This is the last case of plague which has been reported in Victoria.

SMALL-POX.

HISTORY OF SMALL-POX OUTBREAKS IN VICTORIA.

The first recorded outbreak of Small-pox in Victoria occurred in 1857, and was directly introduced by the ship *Commodore Perry*. Small-pox had not been recognised on board, and the first three cases occurred among the passengers who had landed in Melbourne. Sixteen cases in all were reported, four of which had a fatal termination.

In 1866 three cases were reported from Geelong, all of whom had a mild attack, and recovered. The diagnosis was not universally accepted, and the source of the disease was not absolutely proved, but the evidence pointed to the ship *Tornado* as the original source of infection. The second outbreak occurred in the latter part of 1868 and the early part of 1869. The epidemic was introduced by the barque *Avonvale*, on which two deaths had occurred on the voyage from China, and which were unrecognised. The mate of the vessel was sent to hospital on arrival at Melbourne, and developed a Small-pox rash on the next day. Forty-eight cases, with ten deaths, were reported before the epidemic finished.

The third outbreak broke out at Bendigo in 1872. The infection was introduced in Victoria by the ship *Nebraska*, on which an eruptive illness, undiagnosed, had occurred in a child, whose family subsequently went to Bendigo. Another member of the family, on arrival in Bendigo, became ill, died, and was certified as dying of Chicken-pox. Ten cases occurred, with three deaths, all of which were in the same family.

In 1882 a case of Small-pox occurred, and contact with a case in South Australia was established. No further cases of Small-pox occurred, but many cases of Chicken-pox, which occasioned difficulties and differences in diagnosis, were reported.

The next outbreak occurred in April, 1884, and lasted until April, 1885. The source of infection was given as the ship *Rome*, which arrived in Melbourne with one case of Small-pox aboard, and was quarantined. Many cases occurred which could not be traced to any possible infection of the *Rome*, and the evidence collected renders the theory that the *Rome* was the source of the epidemic exceedingly doubtful.

Fifty-six cases in all were reported, with a mortality of six.

In 1895 a case of Small-pox occurred at West Melbourne. The infection of this case was traced to articles landed from s.s. *Cloncurry*, which had been quarantined for Small-pox. The patient was the keeper of a boarding-house, and had received as a boarder a member of the crew of the *Cloncurry* thirteen days previously. This sailor had handled Small-pox patients, and the landlady had turned out his clothes, from which she evidently became infected.

Small-pox next occurred in Victoria in May, 1903. The infection was brought to the State by the s.s. *Gracchus*. No suspicious illness was reported on arrival, and the ship was granted pratique. After leaving Melbourne, however, the boat on reaching New Zealand was discovered to have cases of Small-pox aboard.

The first case occurred at North Melbourne, in the person of a passenger from the *Gracchus*. The next case occurred at Ballarat. This case was the wife of a passenger on the *Gracchus*. On examining the husband signs of Small-pox were still visible. He gave a history of an illness aboard and an eruption. His illness was so mild, and the eruption so scanty, that the true nature of his illness was not suspected. Recovery took place in all cases, and no further cases were reported.

In 1914 a visitor from Sydney, who was incubating Small-pox, stayed at the Federal Coffee Palace, but prompt action in vaccinating all contacts was successful, and no cases of Small-pox occurred.

No further cases of Small-pox occurred till April, 1921.

SMALL-POX (1921).

No cases of Small-pox were reported in the State during the year 1920.

Eight cases have, however, been reported up to the 31st August, 1921, three from Melbourne and five from Geelong.

On 9th April, 1921, a native fireman from s.s. *Gracchus* was admitted to Ward 26 at Melbourne Hospital as suffering from Malaria. On 11th April the patient was removed to quarantine as a suspicious case of Small-pox. The diagnosis was confirmed, and the patient died a few days afterwards.

The second case occurred in a female, *æet.* 40 years, who had been a patient in the Melbourne Hospital from 7th to 16th April in a ward in the same block as previous case. The infection in this case was probably conveyed by one of the nursing staff. This patient was admitted to the Infectious Diseases Hospital, Fairfield, on the 25th April, as a case of Measles, and removed to quarantine the next day, where she died on 30th April. This patient was stated to have been vaccinated in infancy, but the rash which was profuse obscured the marks.

The third case occurred in a female, *aet.* 26 years. This case was reported on 29th April, and was removed to quarantine the same day. This patient had visited her father, a patient in Ward 26, Melbourne Hospital, on the 10th April. She had noticed a "black" man in bed when passing the special ward containing the first case. The distance from the patient's bed to the door was about 6 feet. The case was a modified one, and ran a favorable course. The patient had three good marks of infantile vaccination.

The fourth case, a male, *aet.* 25, was reported from Geelong. The patient became ill on 27th April, and was diagnosed on 5th May as Small-pox and removed to quarantine the next day. The patient was vaccinated in infancy—two good marks—and made a good recovery. No association whatever could be established between this case and the *Gracchus* group of cases, nor could any connexion be established between any person who had been on the ship, nor with any possibly infected article.

On the 16th May the fifth case was reported from Geelong. This patient, a woman, *aet.* 46, was the mother of the previous case. She was removed to quarantine, and made a good recovery. This patient was vaccinated in infancy—two good marks—and was re-vaccinated on 6th May, but the inoculation did not "take".

On the 16th July another case, the sixth, was reported from Geelong. The patient, a female, *aet.* 23, was nursing at a private hospital. Investigation showed that a patient in this hospital who had been admitted as a typhoid fever case had really had a mild attack of Small-pox, and was evidently the source of infection in this case. The patient was suffering from a severe confluent attack, and was removed to quarantine, where she subsequently died on 26th July. This patient had never been vaccinated. Attempts to trace any connexion of the so-called "Typhoid" case with the previous cases in Geelong were unsuccessful.

The seventh case, also from Geelong, was reported on 1st August. This case was an adult male, *aet.* 58 years, and proved to be a severe attack with a profuse rash. The patient was removed to quarantine, and made a good recovery.

The vaccination history was infantile vaccination, and one poor mark was showing. No connexion with any of the previous cases was established.

The eighth case was reported from Geelong on 23rd August. This case occurred in an adult female, *aet.* 54. The patient had a mild abortive attack of Small-pox, and made a good recovery.

This patient had been vaccinated in infancy, and had three faint marks showing. This patient was the mother of a nurse who had been attending Small-pox patients. This nurse had been vaccinated four times during her stay in quarantine, and the arm had shown some inflammatory reaction, but no definite papule or vesicle had formed. She gave a history of feeling ill and had some shivering, and two days later a few pimples came out on her back and chest. This attack conformed to the time period of the onset of Small-pox, and was probably a very mild attack of that disease. The mother nursed the daughter, and thus acquired the disease herself. No further cases occurred among the contacts of these cases.

This series of cases in Geelong show no definite connexion with the original case and with each other, and the obvious deduction is that several very mild cases, which have served as connecting links between the reported cases, passed unnoticed and unrecognised.

INFLUENZA.

As notification of Influenza was found to be of no value in mitigating the prevalence of the disease, it was discontinued after a lengthy trial. Further, as the precise cause of Influenza is not definitely known, diagnosis cannot be established with certainty, consequently, notifications must be inaccurate, and, therefore, of little statistical value.

The disease has been known for many centuries. Latterly it has occurred in pandemic waves at intervals roughly approximating to 30 years. The reason for this periodicity is unknown.

Popularly, the large epidemics in any country are attributed to importation of virulent germs.

The recent epidemic in Victoria began in February, 1919, but reference to the table below shows that there was an abnormal increase of the disease in 1918, indicating that conditions favorable to the production of increased mortality had been at work for some time prior to the notable epidemic of 1919, and prior, also, to the arrival of imported cases.

The last large epidemic in Victoria occurred in 1890. The origin of this was attributed to Turkestan, thence spreading to Europe and America, and finally reaching Australia. In view of the fact that Influenza has existed in Victoria since 1837, and of the well-known epidemiological fact that infectious diseases flare up from time to time in every country, there is reason to believe that the recent virulent outbreak was not necessarily due to importation of germs from abroad.

Pneumonia occurring during an Influenza epidemic is more frequently classed as a complication of Influenza than in non-epidemic times, even when in the latter case it is associated with Influenza. As Pneumonia is so closely associated with Influenza, deaths from the former disease are included in the table for purposes of comparison.

INFLUENZA AND PNEUMONIA.

DEATHS IN VICTORIA, 1911-1921.

Year.	Influenza	Pneumonia and Broncho-Pneumonia.	Total.
1911	150	1,080	1,230
1912	165	1,363	1,528
1913	94	1,069	1,153
1914	151	1,229	1,380
1915	95	1,233	1,328
1916	98	1,081	1,179
1917	66	922	988
1918	210	984	1,194
1919	3,530	1,326	4,856
1920	78	1,204	1,282
1921	136	368	504

DIVISION 2.

TUBERCULOSIS.

VICTORIA, 1886-1921.

The table following shows the actual number of deaths and the death rate per million in the State of Victoria for the periods mentioned:—

TUBERCULOSIS—ALL FORMS.

Year.	Total Deaths.	Death Rate— per million.
Average—		
1886-1890	1,932	1,834
1910	1,307	1,006
1911	1,354	1,025
1912	1,296	957
1913	1,269	911
1914	1,230	864
1915	1,135	796
1916	1,239	879
1917	1,181	840
1918	1,198	845
1919	1,267	865
1920	1,208	803
1921	1,235	804

It will be noted that the death rate per million of population for the period 1886-1890 was 1,834. Since 1890, the death rate gradually decreased, until 1915 when it was reduced to 796. The rate rose to 879 in 1916, and has since continued to be above the 1915 rate. Probably war conditions have operated unfavorably in this respect.

In 1920, the rate was 803, and 804 in 1921. These figures induce the hope that conditions favoring decrease are again in operation.

If the death rate prevailing during the period 1886-1890 had obtained in 1920 and 1921, instead of there being 2,443 deaths, there would have been 5,539.

The reduction in the death rate has doubtless in the main been due to a gradually improving standard of sanitary conditions generally, but some credit is due to the application of the provisions of the Health Acts.

The good results, as shown in the foregoing figures have been brought about in a haphazard way. It follows that if the disease is attacked along well-directed practical lines there is every reason to believe that the prevalence will diminish at a quicker rate than hitherto.

It is recommended that the campaign against tuberculosis be vigorously carried out on the following line :—

1. Notification of Cases.

Notification is the first essential. Provision is made in the Health Act for notification, including notification of removal from one place to another.

On receipt of notification, the Officer of Health has inquiries made as to the environment of the patient. If the patient is not satisfactorily housed and cared for he should be removed to a sanatorium.

The inmates of the house should be clinically examined with a view to ascertaining whether any one is affected. Inquiries should also be made as to the probable source of infection and sanitary environment of place of employment.

Notification thus enables the Officer of Health to take such steps as may be necessary to prevent the patient from acting as a centre of infection, and to keep the contacts under medical surveillance.

Notification is of little service unless sanatoria are provided for the accommodation of cases, and so removing the centre of infection.

2. Early Diagnosis.

It is of the greatest importance that the presence of disease should be detected as early as possible. The earlier it is detected the greater the chance of cure. Every facility should, therefore, be given to enable an early diagnosis to be made.

Where disease is suspected, but not evident, the general practitioner should be enabled to refer the case to an expert diagnostician.

Bacteriological examination, X-ray apparatus, and other special appliances should be made available when necessary for the purpose of diagnosis. A special clinic of this nature could be best established at an existing general hospital.

3. Registration Depôt.

Included in the work of a Registration Depôt would be records of—

- (a) Notifications.
- (b) Admissions to sanatoria and transfers.
- (c) Discharges from sanatoria.
- (d) Clinical histories of cases.
- (e) Surveillance of patients after discharge from sanatorium.

At present the work outlined above is being done to some extent at the Tuberculosis Bureau attached to the Department. Extension is not practicable owing to lack of accommodation and funds.

4. Sanatoria.

(1) *Primary or Receiving Sanatorium.*—All cases not properly environed should be sent to the Receiving Sanatorium.

The purposes served by the Receiving Sanatorium include—

- (a) Hygienic education *re* tuberculosis;
- (b) Observation of case with a view to definitely ascertain condition, and whether condition improves or retrogrades.

After a certain stay in the Receiving Sanatorium the patient should be removed—

- (a) Home if the domestic and financial conditions are favorable; or
- (b) to an Industrial Sanatorium if cure or considerable improvement may reasonably be expected; or
- (c) to a sanatorium for advanced cases where prognosis is unfavorable.

It is desirable to have a separate sanatorium for each sex.

A Receiving Sanatorium should preferably be near the metropolis, as the greatest number of cases come from the centre of population. It also permits of securing the best clinical advice in cases of doubt.

At present 150 beds are available for early cases. Owing, however, to lack of beds for advanced cases, unsuitable cases have to be admitted pending vacancies at advanced sanatoria. In the meantime they may become so weak that they cannot with safety be removed. It is very undesirable for deaths to occur at a sanatorium for early cases.

(2) *Industrial Sanatorium.*—By "Industrial Sanatorium" is meant a place where productive works are carried on by the patients. Each patient would be under medical surveillance continuously, and would be expected to work according to his strength and condition.

Every patient performing work of greater value than the cost of maintenance should be paid accordingly. It is desirable that there should be a sanatorium for each sex. Work under

hygienic conditions and graduated to circumstances is an important factor in improving the clinical condition.

It is estimated that an Industrial Sanatorium capable of accommodation 200 beds is required.

(3) *Sanatorium for Advanced Cases.*—Accommodation for advanced cases is provided for by the Austin Hospital (146 beds) and Heatherton Sanatorium (129 beds). Additional accommodation is essential to satisfactorily cope with the spread of the disease. It is a question for consideration whether existing institutions should be increased or new places provided.

(4) *Intermediate Sanatorium.*—There are some patients who could afford to pay a moderate sum, but are unable to pay the charges demanded at a private sanatorium.

Experience shows that the mixing together of free and paying patients is very unsatisfactory.

While free and paying wards in a general hospital present no difficulty, it is otherwise in a sanatorium where patients mix freely, and are not confined to bed as in a hospital.

(5) *Sanatorium for Children.*—It is desirable that there should be a separate sanatorium for children. In the case of children, organs other than the lungs are more commonly the seat of disease. These affections frequently require surgical attention, which is only occasionally needed in the case of pulmonary consumption, consequently an open-air hospital is more suitable for children than a sanatorium.

5. *Receiving Wards.*

It frequently happens that an advanced case, or even an early case, of tuberculosis may become acutely ill, and is, therefore, not in a fit state to be sent to a sanatorium. Under these circumstances it is very desirable that arrangements should be made with the general hospitals to make provision for the reception of such cases until they can be safely removed to a sanatorium.

6. *Boarding Houses for Consumptives.*

There is a fairly large number of persons slightly affected with tuberculosis who are able to carry on a productive occupation. Under existing circumstances, a proportion of these persons live in boarding houses or hotels, where, if they observe the tuberculosis hygiene, their condition would be noted, and they would receive notice to quit.

If special boarding houses were provided, they could carry out the tuberculosis hygiene, and probably progress to a cure.

Such boarding houses would also provide accommodation for patients who come to the city for examination, and who are being transferred from one sanatorium to another.

7. *Educational Propaganda.*

It is very desirable that patients and the public should be educated in regard to tuberculosis. Such education should be carried out in such a way as not to scare people. Indiscreet propaganda has the effect of causing persons who may be suffering from early symptoms to refrain from seeking medical advice until it is too late.

Persons suffering from early symptoms and contacts should be encouraged to seek medical advice, and provision should be made for same.

Health visitors, preferably specially trained nurses, can be of great service in preventing the spread of the disease by visiting the homes of infected persons and giving practical advice, and inducing contacts to be clinically examined.

8. Tuberculosis prevails in association with insanitary homes, depressing surroundings, and unsuitable work places. An integral part, therefore, in the combating of the prevalence of the disease, is to remove or ameliorate these associated conditions.

Undoubtedly, during recent years great improvements have taken place in the social conditions and homes of the poorer people. This improvement has been the chief factor in the diminishing prevalence of disease, and especially of tuberculosis. Stress must be still laid on the need to continue all improvements possible in sanitation, hygiene, and food. These are largely national questions, but where it is possible the Public Health Department and local councils should enforce all existing legislation to these ends. At the same time all welfare work in factories should be encouraged. By these means the resistance of the people to tuberculosis will be increased, and the inroads of the disease thereby lessened.

General measures in themselves have proved not to be enough, and the special measures outlined in this scheme are essential to bring about a further diminution in the prevalence of tuberculosis in Victoria.

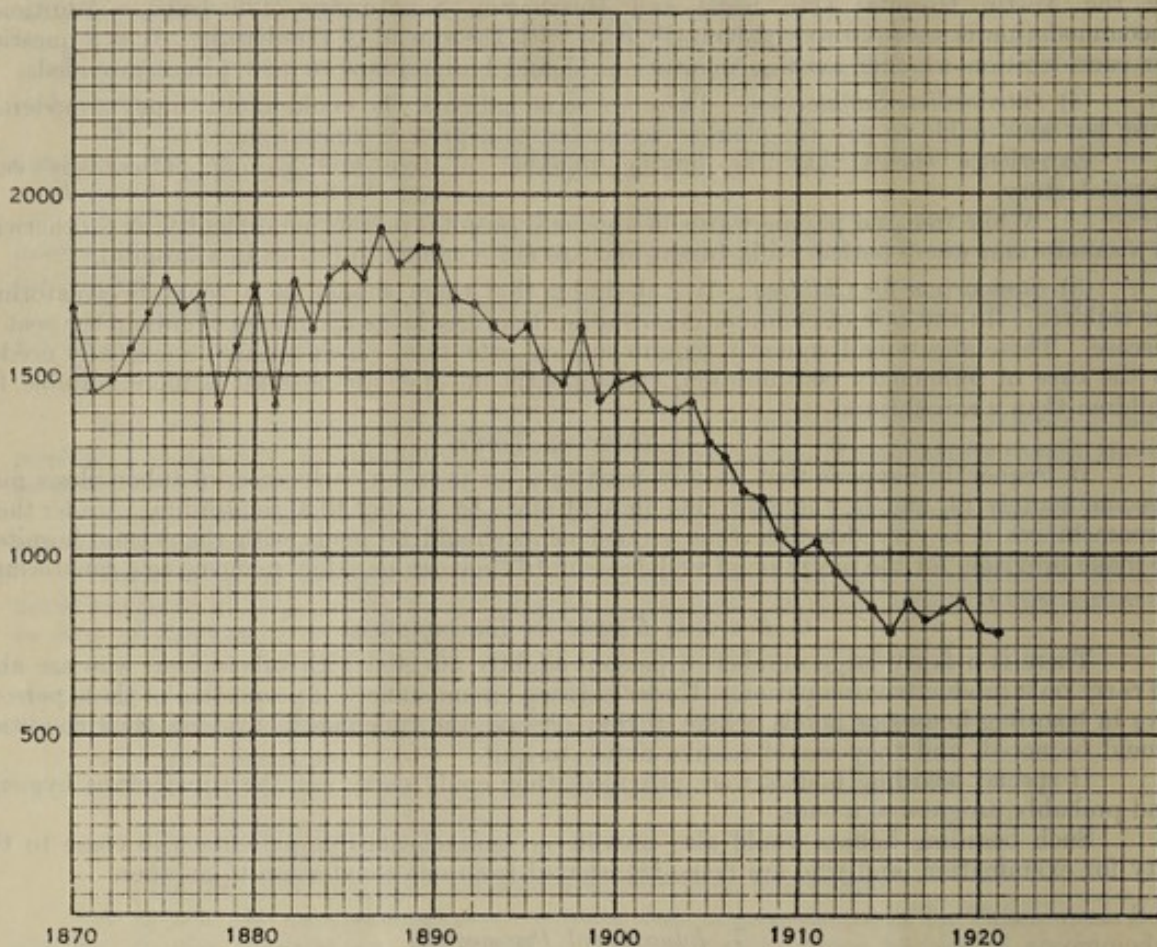
9. *Control.*

For the purpose of co-ordinating the various activities included in a campaign against tuberculosis, it is desirable that a special Tuberculosis Division be created and a specially qualified medical practitioner be placed in charge. He should be an expert in all matters relating to the prevention and treatment of tuberculosis, and should be in charge of the Registration Depot.

TUBERCULOSIS

(ALL FORMS).

Graph showing death rates per million from 1870 to 1921.



TUBERCULOSIS BUREAU.

In July, 1912, the Honorable W. H. Edgar, Minister of Public Health, convened a Conference of Medical Practitioners interested in Tuberculosis to discuss the question of establishing a Tuberculosis Dispensary.

The matter was fully discussed, and it was resolved that as the general hospitals were already doing this work to a great extent, there was no sufficient reason to staff and maintain a special dispensary. In order to link up the work of the various hospitals the Bureau was established.

The functions of the Bureau are—

- To exercise a close supervision over the notifications of cases and deaths;
- To receive all applications for admission to a sanatorium;
- To arrange for admissions, transfers, and discharges;
- To keep under surveillance all persons discharged from a Sanatorium with a view to ascertaining the progress. This involves visits to homes of patients and the giving of hygienic advice.

ACCOMMODATION.

The accommodation available for the reception of persons suffering from pulmonary tuberculosis is as follows :—

Institution.	Beds.		
	Male.	Female.	Total.
Greenvale Sanatorium	60	30	90
Amherst Sanatorium	..	60	60
Heatherton Sanatorium	66	33	129
Austin Hospital	Civilian 60 Military 40	46	146
			425

Greenvale and Amherst are limited to early cases.

Advanced cases only are sent to Heatherton and the Austin.

The table following shows certain particulars in regard to Greenvale and Amherst Sanatoria :—

TABLE III.—SANATORIA.

Year.	Greenvale.																			Amherst.													
	Males.																			Females.													
	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.
Number remaining 1st January	33	47	54	49	66	57	45	30	35	47	38	21	13	16	17	17	11	13	15	5	10	23	28	30	24	33	23	24	46	33	45	21	33
Admissions ..	202	197	267	264	239	249	139	112	136	194	163	72	94	91	90	74	63	75	65	39	90	75	129	168	216	169	155	154	164	129	129	96	107
	235	244	321	313	305	306	184	142	171	241	201	93	107	107	107	91	74	88	80	44	100	98	157	198	240	202	178	178	210	162	174	117	140
DISCHARGED.																																	
Disease arrested or condition much improved	116	128	169	139	106	121	71	64	77	127	81	51	76	69	73	64	27	37	52	27	33	39	105	132	187	161	143	112	154	95	117	58	78
Incurable ..	44	40	72	63	46	88	57	36	32	50	31	11	10	8	13	14	17	20	17	6	32	23	20	34	12	10	9	16	21	11	27	20	7
At own request or on other grounds	28	12	13	43	27	40	25	6	7	19	37	15	6	14	3	..	16	15	4	..	10	17	..	5	3	5	..	1	..	7	4	1	7
Deaths ..	1	11	8	2	9	8	4	1	8	9	8	..	5	..	1	2	1	2	2	1	3	2	2	3	5	3	2	3	2	4	5	5	6
Remaining at end of year	46	53	49	66	57	49	27	35	47	36	44	16	10	16	17	11	13	14	5	10	22	17	30	24	33	23	24	46	33	45	21	33	42
	235	244	321	313	305	306	184	142	171	241	201	93	107	107	107	91	74	88	80	44	100	98	157	198	240	202	178	178	218	162	174	117	140

Since the opening in May, 1905, until 31st December, 1921, 4,893 patients had been admitted to Greenvale Sanatorium; of these, 3,037 were discharged with the disease arrested or their condition much improved, 892 were incurable, 90 died, 616 were discharged at their own request, or for other reasons, and the remaining 61 are still undergoing treatment.

DIVISION 3.

PUBLIC BUILDINGS.

During the period 24th March, 1920, to 30th June, 1922, plans and specifications of new buildings and alterations to existing buildings have been examined and dealt with in accordance with the provisions of Part IX., Division I., of the Act as follows :—

Class of Building.	Number of Sets of Plans Examined.		
	Erection.	Alteration.	Total.
Theatres	..	6	6
Picture Theatres	38	16	54
Dance Halls	6	8	14
Small Halls, Churches, and Sunday Schools	304	122	426
Billiard Rooms	22	1	23
Day Schools	51	28	79
Public Hospitals	8	9	17
Other Public Buildings	15	7	22
Total Public Buildings	444	197	641
Infectious Diseases Hospitals	1	4	5
Private Hospitals	175		175
Total Buildings	445	376	821

In addition to the above, the following inspections of buildings were made :—

General inspections	1,943
Tests of mechanical ventilation systems	15
Night inspections—	
Enforcement of Regulations	662
Collection of air samples	19
Total	2,639

During the same period the opening was approved for public purposes of the following public buildings :—

Class.	Number.
Theatres	21
Public Halls	101
Mechanics' Institutes	22
Stands, Tents, &c.	17
Billiard Rooms	11
Schools	31
Churches	78
Sunday Schools	32
Salvation Army Barracks	18
Public Hospitals	2
Benevolent Institutions	2
Total	335

DIVISION 4.

SPECIAL INSPECTIONS BY MEMBERS OF THE SANITARY ENGINEERING BRANCH.

REPORT OF SPECIAL INSPECTIONS BY F. E. T. COBB, C.E., SANITARY ENGINEER, FOR PERIOD
1ST JULY, 1921, TO 30TH JUNE, 1922.

District and Date.	Matter Investigated.	Outcome.
Melbourne, 13.7.21, 12.10.21, and on 31.3.22 by special request of City Council representative	Council's contention that it is impracticable to fulfil conditions (4) and (5) of the Hon. the Minister's directions, dated 21.6.21, concerning transfer of headstones and monuments, &c., from Old Cemetery	The Hon. the Minister attached explanations to the said conditions
Footscray, 28.7.21..	Imperial Freezing Company's desire to substitute limewash for cement rendering on internal faces of walls of two floors of extensive Woolwashing and Fellmongering building	Painted washable dado 6 ft. 6 in. high from floor lines at the 16-ft. and 29-ft. levels, and lime-whitening of wall surfaces above dado, accepted on condition that decomposable organic matter is excluded from coatings, and that such matter is not found splashed on the walls in question. Council protested, but Commission ruled the provisions to be satisfactory
Richmond, 8.12.21 ..	Bryant and May, Bell and Co.'s Empire (Match) Works as a dangerous trade establishment	Manager's attention directed to possibility of vapours from drying oven being discharged into workroom. Rectification promised
Colac, 23.2.22 and 24.2.22 ..	Sites proposed by Council for Cattle Sale Yards and Public Abattoirs; also sewerage scheme for Colac, as designed by Mr. E. T. M. Garlick, Assoc. M. Inst. C.E., &c.	Commission approved of sites of both Cattle Sale Yards and Public Abattoirs without prejudice to conditions laid down, 29.3.22. Elliminyt Progress Association took exception to the adoption of the site proposed for the Public Abattoirs, but the Commission expressed the opinion the site could be adopted without detriment to the health of the community. Commission approved of adoption of Mr. Garlick's scheme of sewerage, subject to the condition that the effluent shall comply with specified standards in respect of proportion of suspended matter and oxygen absorbed
Dandenong, 5.5.22 ..	Proposal to establish Municipal Abattoirs on premises of the Gippsland Co-operative Bacon Curing Company	Sanitary Engineer's report received, also protests from ratepayers against the proposal. Matter <i>sub judice</i>
Melbourne, 15.6.22 and 27.7.22	Queen Victoria Memorial Hospital—addition of eastern two-storey wing (the "Lady Mitchell")	Though designed for staff residential purposes, allowed by Commission to be used for hospital ward purposes for twelve months from date of approval of opening
Melbourne (Metropolitan), 15.8.21 to 12.6.22	Plans for construction of undermentioned sewers in Metropolitan area examined at the Melbourne and Metropolitan Board of Works offices:— Camberwell South Branch, Section 1, and Golf Links Branch 1 Caulfield Area No. 375 Coburg Area No. 352 Heidelberg Area No. 374 Williamstown Area No. 356 Malvern Area No. 378 Northcote Area No. 380 Brunswick Area No. 373 Camberwell Area No. 376 Malvern, Carnegie Branch Footscray Area No. 379 Essendon Area No. 384 Coburg Area No. 382 Caulfield Area No. 383 Malvern Area No. 386 Preston Area No. 385 Footscray Area No. 388	Plans accepted as satisfactory in every case

SPECIAL TECHNICAL INSPECTIONS, E. A. HEPBURN, B.C.E., ASSISTANT SANITARY ENGINEER.

Date and Place.	Matter Inquired Into.	Outcome.
Golden Square, 2.5.22 ..	Disposal of drainage from Foggitt, Jones, Co.'s Bacon Factory and position of factory in relation to residential areas	Report and locality plan made and filed
Bendigo, 2.5.22 and 3.5.22..	Inspection of sewerage system plans and of the work as far as carried out	Copies of plans obtained and general description of the work recorded

SPECIAL TECHNICAL INSPECTIONS, BY C. A. MASTERTON, B.C.E., BUILDING INSPECTOR.

District and Date.	Matter Inspected.	Outcome of Inspection.
Toorak, 5.7.21 ..	Alleged nuisance from sewer vents ..	No nuisance found
Footscray, 28.7.21 ..	Additions to Angliss and Co.'s works ..	Permission given to use finished portion
Mildura, 12.8.21 ..	Drainage disposal at Mildura Public Hospital	Proprietors directed to prepare a scheme for sanitary disposal
Mildura, 13.8.21 ..	Pollution of River Murray ..	Representations made to Council and plans for rectification being prepared
Horsham, 26.8.21 ..	Proposed site for High School in area liable to flooding	Conditional approval of site given by Commission
Braybrook, 6.9.21 ..	Proposed site for cattle saleyards ..	Conditional approval of site given by Commission
Brunswick, 10.9.21 ..	Proposed picture theatre site in a quarry	Scheme abandoned
Burwood, 12.9.21 ..	Proposed nightsoil depot ..	Not yet finalized
Heidelberg, 19.10.21 ..	Septic tank disused after connexion of drains to Melbourne and Metropolitan Board of Works sewer	Instructions given re prevention of nuisance
Bendigo, 25.10.21 and 26.10.21	Collecting samples of drainage and of soil of proposed disposal area—Foggitt, Jones, and Co.'s Bacon Factory	Scheme for drainage disposal submitted; approved, and now being installed
Mooroopna, 28.11.21 ..	Drainage system of hospital, including I.D. wards	Proper disposal system demanded and being prepared
Williamstown, 10.1.22 ..	Drainage nuisance on Kororoit Creek-road	Letters sent to Council, Railways, and Melbourne and Metropolitan Board of Works. Matter not yet finalized
Fairfield, 17.1.22 ..	Alleged nuisance from Fairfield Hat Mills	No nuisance or probable cause thereof discovered
St. Kilda, 24.1.22 and 27.1.22	Structural stability of "Scenic Railway" at Luna Park	Repairs required and carried out satisfactorily
Alphington, 24.1.22 ..	Pollution of Yarra by Paper Mills drainage	Improvements being made. Matter not yet finalized Order issued to rectify defects Scheme now being completed
Alphington, 7.6.22 ..	Collection of effluent from above ..	
Dandenong, 26.5.22 ..	Bacon Factory drainage ..	
Williamstown, 21.6.22 ..	Race-course drainage ..	

DIVISION 5.

FOOD AND DRUGS.

The first Act relating to Public Health, passed by the Victorian Legislature (18 Victoria, No. 13), contained provisions for inspection, examination, and seizure of unwholesome food.

The next Act dealing with food was 37 Victoria, No. 177, which came into operation on 1st November, 1863. This Act made it an offence for any person to sell adulterated food or food bearing a false label. It also provided for the names of the "second offenders" to be published. Provision was made for analyses of foods. It was incumbent on the purchaser of food for analysis to inform the vendor of such intention. In order to protect himself, the vendor had the right to accompany the purchaser to the analyst's office. No provision was made for sealing or dividing samples. Definitions are given of "article of food or drink", "adulteration", and "impurity". The analyst was entitled to a fee ranging between 10s. 6d. and £2 2s.

Act No. 524, which was passed on 7th April, 1876, made it an offence for any person to have in his possession any diseased animal or any meat blown, spouted, greased, stuffed, or pricked. This Act also gave powers to the police to enter and inspect premises. Act No. 782, which came

into operation on 3rd November, 1883, considerably augmented the provisions of previous Acts relating to food, and included the following :—

- (1) Prohibition of the mixing, colouring, staining of any food or drug.
- (2) No person shall sell to the prejudice of the purchaser any article of food or drug. Provision was also made for the maximum reduction of alcoholic strength of brandy, whisky, rum, and gin.
- (3) Protection against committing an offence by giving a label.
- (4) Provision made for dividing a sample into three parts.
- (5) Refusal to sell made an offence.

Act No. 1011, which came into force on 22nd December, 1888, amended previous Acts in the following directions :—

- (1) Hitherto no person could be convicted of selling unwholesome food unless it was proved that he was aware of the unwholesome condition. This Act provided that the seller of such food would be held responsible unless he could show that he could not with reasonable diligence have ascertained the condition.
- (2) Officers are indemnified for seizure.
- (3) Penalties are increased.

On 25th November, 1889, Act No. 1044 came into operation, and provided that :—

- (a) Inspectors shall obtain samples when adulteration is suspected.
- (b) Butter imitations shall be labelled. Power is given to seize unbranded compounds.

The Margarine Act No. 1331 (3rd November, 1893), laid down the conditions under which imitation butters are to be sold.

Act No. 1692 (17th October, 1900) deals with the manufacture and sale of wine.

On the 12th December, 1905, the Pure Food Act No. 2010 became law. This Act was necessitated by the increasing sophistication, adulteration, and preservation of food. A Food Standards Committee was constituted by the Act. The principal duty of this Committee is to frame standards for foods and to regulate the contents of the labels attached to packages of foods.

Preservatives are prohibited except in regard to those foods which would rapidly become unmerchantable, and in those cases only the minimum amount necessary for the purpose is allowed.

In 1915 all the various Acts dealing with Health, including the Pure Food Act, were consolidated under the title of the *Health Act 1915*, No. 2665.

In 1919 a new Health Act was passed, which included not only the above Acts and the Meat Supervision Act, but many new provisions, bringing the Act generally up to date and more in accordance with modern requirements.

The Pure Food Act of 1905 provided for the definition and prevention of adulteration and for the proper labelling of packages and prevention of false description of Foods and Drugs, as well as the seizure under certain circumstances of such articles not complying with the provisions of the Act ; prosecution and penalties for breaches of the Act.

Special provision was also made for the proper labelling of articles of Food and Drugs containing preservatives and colouring matter, also for specific information to be applied to labels of packages containing deodorants and disinfectants. It was recognised that previously many substances were sold to the public as disinfectants which were merely deodorants, and the danger resulting from the treatment of, say, typhoid excreta, or disinfecting houses, clothing, &c., with preparations which were not in reality disinfectants will be readily understood.

Regulations were consequently made relating to the labelling of disinfectants, germicides, antiseptics, and preservatives, and defining the articles to which the terms should be applied, as well as stating the method of using same, and the conditions under which the effects might be counteracted or interfered with.

In addition, Regulations were issued from time to time creating Standards for Foods and Drugs, prescribing special forms of labelling, and, in some cases, exempting certain articles from the provisions of the Act.

In 1916 these Regulations were consolidated and issued by the Board of Public Health of Victoria, on the recommendation of the Foods Standards Committee, under section 41 (1) as a booklet, "Regulations and Standards for Foods and Drugs."

Later, in the same year, another small booklet was issued under section 41 (2) by the Board, containing "Regulations for Securing the Cleanliness and Freedom from Contamination of Articles of Food, &c." These Regulations provided, amongst other things, for the cleanliness of premises on which food was manufactured, packed, kept, or exposed for sale ; the cleanliness of vehicles, utensils, appliances, &c., used in connexion with same, and for personal cleanliness of employees, protection from contamination of food from flies, and vermin, &c

This Act placed the obligation on each municipal council of submitting for analysis at least three samples of food or drugs for every thousand of the population in its municipal district, and for generally carrying out the provisions of the Act and Regulations. Needless to state, such drastic legislation caused a considerable amount of opposition on the part of wholesale and retail purveyors of food, and involved radical alteration in connexion with the manufacture and labelling of foods for sale. Many firms held large stocks of old goods and old labels which they were anxious to utilize, consequently, in administering the Act, at first a considerable amount of latitude was allowed, and attempts were made to carry out only the more important provisions of the Act. At the same time, information was freely supplied to all inquirers, and warnings and cautions were administered in all cases where infringements of minor requirements were found.

Until 1908 two inspectors only were available for inspection of food. In this year the staff was increased by the appointment of five temporary inspectors. An earnest endeavor was then made to carry out the provisions of the Pure Food Act by actively assisting the municipal inspectors and by direct inspection and sampling. Prosecutions were undertaken by the Board wherever the circumstances justified that course. In 1909 two of the temporary inspectors were appointed as permanent officers, and one was transferred to the Commonwealth Service.

In 1911 the two remaining temporary inspectors resigned, but in the following year the vacancies thus created were filled, thus restoring the strength of food inspectors to five, all of whom, excepting one engaged in country work, underwent the necessary course of training, and obtained the qualifications of the Royal Sanitary Institute, London, Victoria Branch, also the Board's certificate qualifying them as meat inspectors under the Meat Supervision Act. Liquor inspection was at this time being carried out under the provisions of the Foods Act by a staff of seven inspectors. The services of these inspectors were utilized when available for food inspection. At the commencement of the new *Health Act* 1919 there was thus a staff of five inspectors, all of whom were qualified either by certificate or experience to act as Food and Liquor Inspectors; and four of whom were also qualified Meat Inspectors. All the old liquor inspectors, with the exception of one, having meanwhile retired, liquor inspection was included in the duties of, and has since been carried out by, that staff, under the designation of "Health Inspectors." The *Health Act* 1919 provides that in future all health inspectors must possess a certificate of qualification as such, and regulations have been made by the Commission of Public Health prescribing an appropriate course of training and an examination for such qualifying certificate.

The manner in which food inspection was carried out by municipalities was at first extremely unsatisfactory.

Whilst some of the councils made an honest endeavour to carry out the provisions of the Act, others made no attempt whatever. Ultimately, the Board resolved to adopt drastic measures in compelling councils to carry out their duties under the Act, and a number of them were prosecuted with salutary results. For a few years prior to the 1919 Act, however, it was found that a number of the municipal authorities still performed their duty in rather a perfunctory manner.

Many of them sent in their samples for analysis *en bloc* at the end of the year, and, besides overburdening the analysts at this particular period of the year with work which would properly have been distributed throughout the year, this system really defeated the objects of the Act, as traders were practically exempt from inspection for the rest of the year. Following on a suggestion made in the triennial report for 1908, 1909, and 1910, a circular was issued to councils requiring them to distribute the food sampling throughout the year instead of as heretofore, concentrating the work into the last month of the year, also suggesting the advisableness of confining municipal sampling, as far as practicable, to local products. This was followed by a considerable improvement.

In the 1919 Act every council is required to submit for analysis during each year not less than three samples of food or drugs for each thousand persons of the population of the municipality, so that one-fourth of such samples shall be submitted for analysis in every quarter of every year.

The lack of knowledge on the part of many municipal inspectors has been responsible for a large number of samples arriving at the analyst's laboratory in a state unfit for analysis through improper sealing, improper packing, or otherwise not having been taken in accordance with the provisions of the Act.

A pamphlet containing information relating to the duties imposed and conferred on councils and officers of councils by and under the *Health Act* 1919 has been issued under the instructions of the Commission of Public Health, which it is hoped may have a salutary effect. The new section in the Act, however, providing that Health Inspectors must possess a special certificate of qualifications for this work, points to a more hopeful future in this respect.

SAMPLES TAKEN BY INSPECTORS OF THE PUBLIC HEALTH DEPARTMENT AND ANALYZED BY THE COMMISSION'S OFFICERS DURING THE YEAR 1921.

Article.	Analyzed.	Adulterated.	Article.	Analyzed.	Adulterated.
Air	38		Maize	2	
Accol	1		„ Oil	2	
Arrowroot	1		„ Syrup	3	
Bagging	1		Maizena	2	
Blanket	1		Margarine	4	1
Boracic Acid	1	1	Meat	10	
Brandy	7	6	„ Paste	2	
Butter	1	1	„ Potted	1	
Chicory	2	2	Medicine	1	
Chocolate and Milk	1		Milk	62	14
Cloves	1		„ Can	1	
Cocoa	1		„ Condensed	3	
Cocoa and Milk	3		„ Sour	2	2
Coffee and Milk	2		Mustard	8	
Cordials	7	5	Oats	2	1
Cornflour	5		Oil, Camphorated	2	
Cornina	1		„ Castor	1	1
Cream	2	1	„ Neatsfoot	1	1
Culinary Essences	2	1	„ Olive	6	
Cyllin	1		Paint	10	
Davro	2	1	Phenyle	6	
Drainage	4		Pills	1	
Earth	6		Preservative	1	
Epsom Salts	1		Rat Poison	6	
Eucalyptine	1		Rice	1	
Fat	1		Rum	6	6
Fish, Tinned	7		Sauce	1	
Flannel	2	1	Sausage meat	4	1
Gelatine	3		Schnapps	16	11
Gin	10	5	Silk Stockings	21	21
Glucose	1		Sulphur Candles	1	
Gregorie's Powder	1		„ Glass	2	2
Honey	1		Superphosphate	1	
Iodine	1		Tea	108	2
Jelly	2		Vacyle	3	
Lard	5		Water	19	1
Lemon Butter	3		Whisky	88	43
Liquorice Powder	2	2	Xtol	1	

Total Number of Samples Analyzed 535

Total Number of Samples Adulterated 133

SAMPLES TAKEN BY INSPECTORS OF THE PUBLIC HEALTH DEPARTMENT AND ANALYZED BY THE COMMISSION'S OFFICERS DURING THE PERIOD 1ST JANUARY TO 30TH JUNE, 1922.

Article.	Analyzed.	Adulterated.	Article.	Analyzed.	Adulterated.
Air	55		Lemonade Crystals	1	
Boracic Acid	1		Milk	41	1
Bran	3	3	„ Can	1	1
Cheese	6	3	Medicine	3	
Conserve	2		Olive Oil	1	
Cordials	2	1	Peas, Tinned	3	
Cream of Tartar	9		Phenyle	4	1
Disinfectant	7		Rum	1	1
Fish	5		Sausage meat	2	1
Flannel	1	1	Schnapps	9	2
Florite	2		Silk Stockings	2	2
Flowers of Camphor	1		Tea	36	1
Fruit Wine	2	2	Water	2	
Gin	5	1	Whisky	52	29
Jam	3				
Meat	4		Total	266	50

LIST OF SAMPLES TAKEN BY MUNICIPAL INSPECTORS AND ANALYZED BY THE COMMISSION'S OFFICERS DURING THE YEAR 1921.

Article.	Analyzed.	Adulterated.	Article.	Analyzed.	Adulterated.
Aerated Water	4		Jam	22	
Arrowroot	5		Jelly Crystals	10	
Bacon	3		Klepalo	6	
Baking Powder	25	1	Lard	8	1
" Soda	4		Maize	1	
Barley	3		Maizena	14	
Beer	4		Maltogen	1	
Biscuits	1		Margarine	3	
Brawn	1		Meat, Cooked	2	
Bread	76		" Extract	2	
Brose Meal	2		" Mince	27	4
Buns	12		" Paste	1	
Butter	50		" Pies	3	
Cake	43		Milk	1,081	47
Carbonate of Soda	19		" Powder	1	
Cheese	39		" Sour	75	3
Chicory	3		" Skim	1	
Chocolate and Milk	1		Mustard	27	
Cinnamon	5	1	Oats	1	
Citric Acid	6		Oatmeal	34	
Cloves	1		Oil, Castor	1	
Cocoa	27		" Olive	2	
" Essence	4		" Salad	5	
" Nut	4		Pasteurized Separated Milk	1	
Coffee	17	1	Pastry	6	
" Essence	1		Peas	1	
" and Chicory	34		Pepper	46	
" and Chicory Essence	2		Pickles	1	
Colouring Powder	1		Pudding, Black and White	9	
Condensed Milk	2		Rice	10	
Confectionery	8		Sago	8	
Cordials	52	3	Saline	1	
Cornflower	7		Salt	4	
Cornina	2		Saltpetre	1	
Cream	3	1	Salts, Epsom	1	
Cream of Tartar	78	5	Sauce	6	
Culinary Essence	6		Sausage, German	14	6
Currant Bread	1		" Meat	131	14
Currants	1		Scones	4	
Curry	9		Self-raising Flour	5	
Custard Powder	12		Separated Milk	3	
Digestive Meal	1		Spices	4	
Dripping	5		Starch	1	
Fermentine	1		Sugar	8	1
Florozol	1		Sulphur	1	
Flour	14		Tartaric Acid	3	
Fruit Salts	1		Tapioca	11	
" Preserved	2		Tea	29	
" Dried	1		Tomato Sauce	2	
Ginger	5		Vinegar	38	1
Groats	3		Vermicelli	2	
Homell	2		Water	10	
Honey	4		Whisky	1	
Ice Cream	6		Wine	1	
Icing Sugar	6				

Total Number of Samples Analyzed 2,321

Total Number of Samples Adulterated 89

LIST OF SAMPLES TAKEN BY MUNICIPAL INSPECTORS AND ANALYZED BY THE COMMISSION'S OFFICERS DURING
THE PERIOD 1ST JANUARY TO 30TH JUNE, 1922.

Article.	Analyzed.	Adulterated.	Article.	Analyzed.	Adulterated.
Arrowroot	3		Gelatine	1	
Baking Powder	5		Ginger	1	
" Soda	1		Glycerine	1	
Beer	2		Honey	4	
Black Pudding	1		Ice Cream	2	
Borax	2		Icing Sugar	1	
Boracic Acid	2		Jam	2	
Bread	23		Jelly Crystals	3	
Breakfast Delight	1		Klepalo	1	
Brose Meal	1		Lard	2	
Buns	2		Mace	3	
Butter	16		Maizena	2	
Cake	4		Maize Cobs	1	
Carbonate of Soda	3		Meat, Mince	2	2
Castor Sugar	1		Medicine	1	
Cheese	11		Milk	367	19
Chutney	1		" Sour	17	1
Cinnamon	1		" Pasteurized Separated	1	
Citric Acid	4		Mustard	4	
Cocoa	10		Oatmeal	4	
" Essence	1		Olive Oil	2	
" Nut	2		Peas, Split	1	
Coffee	8		Pepper	8	
" Essence	1		Rice	3	
" and Chicory	5		Sago	3	
" and Chicory Essence	3		Salt	1	
Condensed Milk	1		Sauce	8	
Confectionery	2		Sausage, German	3	
Cordials	18		" Meat	19	2
Cornflower	3		Sugar	1	
Cornina	1		Tartaric Acid	1	
Cream of Tartar	20		Tapioca	1	
Culinary Essence	8		Tea	6	
Curry	2		Vinegar	9	
Custard Powder	4		Water	14	
Digestive Meal	2		White Pudding	3	
Eucalyptus	1		Wine	2	
Flour	3				
" Self Raising	2		Total	686	25

PROSECUTIONS, FINES, AND COSTS FOR THE PERIOD 1908-1922.

Year.	Number of Prosecutions.	Fines.	Costs.
		£ s. d.	£ s. d.
1908	126	683 18 0	367 12 9
1909	193	362 5 3	321 1 3
1910	77	115 6 0	82 3 6
1911	235	416 17 0	295 14 11
1912	375	626 18 6	369 14 3
1913	287	422 2 6	236 16 3
1914	254	473 2 0	270 18 3
1915	251	641 1 0	218 3 0
1916	169	317 7 0	150 2 5
1917	108	215 2 0	119 0 2
1918	116	254 7 6	117 5 9
1919	95	330 10 0	122 9 10
1920	129	517 13 0	243 5 11
1921	170	553 3 0	440 0 6
1922 (to 30th June, 1922)	67	253 5 0	301 3 0

DIVISION 6.

MEAT INSPECTION.

Until the passing of the *Meat Supervision Act* 1900 practically no provision existed in Victoria for the inspection of meat. In 1864, the Licensed Butchers and Abattoirs Statute was passed. This was repealed by the Abattoirs Statute which was passed in 1869, and amended by a short Act in 1870. So much of these Acts which had not already been repealed were repealed by the *Butchers and Abattoirs Act* 1890. This Act provided amongst other things for the erection and ownership of abattoirs by councils and the licensing of private abattoirs, also the prevention of slaughtering elsewhere. Power was given for councils to appoint inspectors of abattoirs and slaughter-houses, and of cattle intended for slaughter. But that such inspectors were intended as a precaution for tracing stolen cattle more than for the securing of a sound meat supply is evidenced by the duties of inspectors as outlined in section 29 of the Act, viz., that every such inspector shall examine the cattle so intended to be slaughtered in his district, and shall enter or cause to be entered in a book to be kept by him for the purpose a description of such cattle, with the colour, marks, brands, sex, and apparent age, the name of the owner thereof, and of the time or place of slaughter, &c. There is no mention of disease or unsoundness. This Act was consolidated in 1915, and finally incorporated in the *Health Act* 1919.

The only other provision touching on meat was contained in Act No. 524, which was passed on the 7th April, 1876, and continued in the *Public Health Amendment Statute* 1883, section 58, later appearing in the *Health Act* 1890 as section 52, and in the 1915 consolidation as section 69. This authorizes any officer of the Board or of any council or any member of the police force to seize any animals, carcasses, or articles which appear to him to be diseased or deleterious to health, or unwholesome, or any meat which has been blown, spouted, greased, stuffed, or pricked, and to destroy same before they are claimed if they become decayed or putrefied. Provision was also made in the Health Acts for the registration of abattoirs. As a matter of fact, until the *Health Act* 1919 was passed, abattoirs could be established under three different Acts, the Health Act, the Butchers and Abattoirs Act, and the Local Government Act. The *Health Act* 1919 repeals the registration provisions of the two last named.

The *Meat Supervision Act* 1900 was the first real attempt to introduce systematic meat inspection into Victoria. It was administered by the Board and applied to the metropolitan meat area only, which consisted of Melbourne and all the principal suburbs, with power to extend or reduce such meat area.

Provision was made for the qualification of meat inspectors and for the appointment of same by the councils, in such number as in the opinion of the Board is necessary for carrying out such duties as are imposed upon meat inspectors by the Act.

The Act provided that no person shall be eligible to be a meat inspector unless he proves to the satisfaction of the Board that he possesses competent knowledge, skill, and experience for the performance of the duties imposed on meat inspectors by this Act, and an examining board was appointed to test candidates as to their qualifications, and a certificate was issued by the Board, without possessing which no person was entitled to hold the position of meat inspector. The duties of meat inspectors were defined and included *ante-mortem* and *post-mortem* inspection of the animals, carcasses, and viscera.

Slaughtering was prohibited in the meat area except at a municipal abattoir or licensed private abattoir, and no new abattoirs were permitted to be erected or opened in the meat area without the consent of the Board. Annual renewal of licences required the approval of the Board, and no alteration or extensions to existing abattoirs were permitted without the approval of the Board.

No carcass or meat was permitted to leave an abattoir in the meat area for human consumption unless it has been examined by a meat inspector and branded as fit for human consumption, and no carcass or meat for human consumption was permitted to enter a meat area except those derived from animals fattened and slaughtered by a person on his own premises and examined and branded by a meat inspector at an appointed place in the meat area.

Special arrangements were made for the reception of imported meat which had to be, accompanied by a certificate from an inspector specially appointed for that purpose by the country from which it was imported, and had to be labelled "imported" when exposed for sale. Restrictions were also placed on the sale of meat in a meat area unless the above conditions had been complied with, and penalties were provided for any breach of the Act. Power was given to councils to make regulations prescribing the conditions of inspection and general management of the abattoirs, and to the Board, prescribing the conditions under which carcasses or meat shall be certified and branded as fit for human consumption or condemned and certified as unfit for human consumption, &c.

In 1901 an amended Act was passed enlarging the meaning of "Meat Area" so as to apply not only to the metropolitan meat area but to any meat area constituted under the Meat Supervision Act.

The Governor in Council may, by order published in the *Government Gazette*, on the application of any council or councils of any municipal district or districts, apply the provisions of the Meat Supervision Act to such district or districts or to any part or parts thereof, which shall thereupon become meat areas under the Act. Power was also given to cancel any such meat areas, and to permit of meat from one meat area being sold in another meat area.

A further amendment of the Act was passed in 1909 providing for the application of the Meat Supervision Act to bacon, which had been exempt under the original Act.

In 1909 an amendment to the Geelong Harbor Trust Act was passed, empowering the Governor in Council, on application of the Commissioners, to apply the provisions of the Meat Supervision Act to any part of the land vested in the Commissioners which is not within any meat area, thereupon any part specified in such Order in Council shall become a meat area, and the Commissioners shall have all the power of a council under the Meat Supervision Act, with power to establish and carry on abattoirs in such meat area, any such abattoir to be a public abattoir, and the Commissioners to be deemed the owner thereof. The town council was protected to the extent that no stock was permitted to be slaughtered in such abattoir without the consent of the council, for any retail butcher within Geelong meat area, for sale within 48 hours from the time of slaughter, the same dues, fees, and tolls to be paid on same as if they had been slaughtered at the Geelong Town abattoirs.

In 1919 the Meat Supervision Act was incorporated in the Health Act, No. 3041, and the power of councils to appoint or dismiss a district meat inspector was modified to the extent that no appointment or dismissal can be made without the approval of the Commission.

The authority conferred on councils to make regulations under the Act was, to a great extent, transferred to the Governor in Council under the new Act. Under the powers thus conferred, on the 21st February, 1922, the Governor in Council, on the recommendation of the Commission, and with the advice of the Executive Council, made "Regulations Relating to Meat Supervision" which were gazetted on the 1st March, 1922, and are now in force. At the commencement of the Meat Supervision Act its action was restricted on account of the limited application of the Act to the metropolitan meat area. The 1901 Act, empowering the Governor in Council on the application of any municipal council to apply the provisions of the Meat Supervision Act to any municipal district or part of a district, was speedily followed by the declaration of meat areas in Geelong, Warrnambool, Bendigo, Ballarat, Dandenong, Dunmunkle, Shepparton, and Traralgon.

Following the creation of meat areas for these places abattoirs were provided by the councils of the municipalities of Ballarat, Bendigo, Geelong, and Warrnambool, and also by the Geelong Harbor Trust.

In addition, abattoirs were erected by private companies at Ballarat, Bendigo, Braybrook, Dandenong, Murtoa, and Shepparton.

Under the new *Health Act* 1919, the Governor in Council, on the recommendation of the Commission, may now, irrespective of the municipal council, constitute the whole or any part of any municipal district or districts a meat area; extend, alter or reduce the limits of any meat area, or revoke the constitution of a meat area.

Under the Meat Supervision Act, regulations were made by the various municipal councils concerning the management of the abattoirs in their respective districts, whilst the Board made regulations *re* brands to be used and the parts of the carcass on which the brands should be placed.

Fire brands were prescribed with letters indicating the municipal councils to which they were allotted, whilst special brands were provided for imported and frozen meat. Branding of frozen meat is now statutory under the *Health Act* 1919.

On the Meat Supervision Act coming into force the Board made a thorough inspection of the metropolitan abattoirs, with the result that 33 private and two public abattoirs were condemned as unfit, and renewals of registration refused. The remaining abattoirs were reconstructed to the Board's sanitary standards.

Inspection at bacon factories was at first carried out by departmental meat inspectors appointed by the Board, and this enabled many small bacon factories in the country to carry on and still send their produce into the meat area. This system was a great convenience and was highly successful, all expenses being met by the fees charged for inspection without unduly harassing the owner of such factories.

In 1911, the inspection of meat for export, under the Commerce Act, was placed by the Commonwealth under the supervision of the Health Department, thus bringing all meat inspection, export, and local, under State control. The results were highly beneficial as well as economical, both to the State and to the Commonwealth.

One staff of inspectors appointed by the Board carried out the work of inspection, thus preventing duplication of inspections in many abattoirs, and securing a more

uniform method of inspection. An arrangement was made with the Commonwealth by which a number of inspectors were transferred to Queensland for the export season in that State as soon as the export season closed in Victoria.

By this means a regular and practically a whole-time staff of qualified meat inspectors was secured in place of the temporary and, in many instances, unqualified inspectors who had previously been engaged for the export season only. The system worked well, and was practically self-supporting as far as the Commonwealth was concerned, and returned a profit of from three to four hundred a year to the State. This arrangement was terminated in 1915 by the then Minister of Health.

DIVISION 7.

REGULATIONS, PROCLAMATIONS, ETC.

During our term of office the following Regulations have been made :—

Subject.	Gazette.	
	Date.	Page.
1. Diphtheria	23.6.1920	2,164
2. Vaccination	12.7.1920	2,345
3. Fees for Members of the Food Standards Committee	25.8.1920	2,762
4. Notifiable Infectious Diseases	6.10.1920	3,102-3
5. Qualifications of Inspectors	20.4.1921	1,441
6. Small-pox	29.4.1921	1,563
7. Private Hospitals	25.5.1921	2,224
8. Prevention of Advertising in Cemeteries	1.6.1921	2,314
9. Registration of certain Premises	15.6.1921	2,409
10. Fees for Examination of Plans	13.7.1921	2,678
11. Destruction of Rats	21.9.1921	3,315
12. Plague	11.1.1922	30
13. Plague and Fairfield Hospital	11.1.1922	36
14. Committees of Management of Common Hospitals for Infectious Disease	15.2.1922	565
15. Meat Supervision	1.3.1922	668
16. Cleanliness of Barbers' and Hairdressers' Shops	1.3.1922	677
17. Analyses—Fees and Forms of Certificates	5.4.1922	951
18. Smoke—Prevention and Abatement	5.4.1922	953
19. Infectious Diseases	7.6.1922	1,449

The following regulations have been considered, and are now in the hands of the legal Draftsman :—

Boarding-houses.
Public Buildings.
Offensive Trades.
Cleanliness and Freedom from Contamination of articles of Food.
Regulations and Standards for Food and Drugs.
Abattoirs.

Proclamations were also made dealing with :—

Subject.	Gazette.	
	Date.	Page.
1. Appointment of Commission	24.3.1920	1,366
2. Commencement of <i>Health Act</i> 1919	{ 16.3.1920 } { 24.3.1920 }	1,406
3. Notifiable Infectious Disease	21.7.1920	2,465
4. Animals—Applying Division 6 of Part IV. to Shires	25.8.1920	2,764
5. Revocation of Meat Area, Castlemaine	6.10.1920	3,105
6. Section 44—Duty of Sewerage Authority	27.10.1920	3,292
7. Health Areas constituted	20.4.1921	1,471
8. Eating Houses—Mentone and Mordialloc	23.2.1921	798
9. Eating Houses—Section to apply to whole State	23.3.1921	1,076
10. Section 44—Geelong Waterworks Trust	20.4.1921	1,471
11. Poultry Killing, &c., added to list of Offensive Trades	4.5.1921	1,603
12. Infectious Disease or Conditions	12.10.1921	3,549
13. Grandstands on Race-courses, &c.—Registration of	9.11.1921	3,882
14. Notifiable Diseases—Additions to	12.10.1921	3,549

Pamphlets for the information and guidance of Municipal Officers and the public in connexion with the undermentioned subjects have also been issued :—

- (1) Instructions for the guidance of Public Vaccinators and Registrars of Births and Deaths.
- (2) Inspection of Food and Drugs.
- (3) General Code of Duties for Medical Officers of Health.
- (4) General Code of Duties for Municipal Health Inspectors.
- (5) Rats and Plague.
- (6) Private Hospitals.
- (7) Infection and Disinfection.

DIVISION 8.

VITAL STATISTICS.

SUPPLIED BY MR. A. M. LAUGHTON, GOVERNMENT STATIST.

TABLE I.

Death Rates from Various Causes, Victoria.

Cause of Death.	Deaths per Million of the Population.						
	1908-12.	1916.	1917.	1918.	1919.	1920.	1921.
Typhoid Fever	98	51	45	32	21	37	46
Scarlet Fever	16	21	23	28	24	24	12
Measles	33	13	11	5	17	146	4
Whooping Cough	77	84	51	47	24	125	63
Diphtheria and Croup	122	189	110	149	144	183	179
Influenza	109	70	47	148	2,407	52	88
Pulmonary Tuberculosis	855	743	677	701	739	658	667
Other Tubercular Diseases	182	136	163	144	126	145	137
Syphilis	51	36	48	42	40	46	36
Cancer	833	921	925	942	870	908	954
Diabetes	107	128	120	146	134	126	136
Anæmia, Chlorosis, Leucæmia	81	94	97	90	93	90	104
Meningitis	133	298	104	78	52	64	76
Locomotor Ataxia and other Diseases of the Spinal Cord	71	70	58	88	78	45	52
Congestion and Hæmorrhage of the Brain	449	497	437	427	438	472	472
Epilepsy	35	54	42	40	38	31	34
Heart Diseases (including Endocarditis, Pericarditis, and Angina Pectoris)	1,441	1,287	1,442	1,400	1,402	1,287	1,267
Acute and Chronic Bronchitis	348	313	201	233	284	273	223
Pneumonia and Broncho-pneumonia	834	767	656	694	904	801	676
Pleurisy	45	42	40	32	42	23	35
Congestion of Lungs and Pulmonary Apoplexy	63	82	57	56	51	84	59
Asthma and Pulmonary Emphysema	60	58	48	51	49	41	22
Enteritis, Gastro-enteritis, and Diarrhoeal Diseases	833	731	408	504	501	639	657
Hernia, Intestinal Obstruction	113	107	104	115	111	118	100
Appendicitis	81	55	62	66	61	63	57
Diseases of the Stomach (Cancer excepted)	99	84	83	83	98	106	79
Cirrhosis and other diseases of the Liver (Cancer and Hydatids excepted)	158	96	110	112	91	96	99
Acute and Chronic Nephritis, Uræmia, Bright's Disease	576	570	568	586	510	540	517
Disease of the Bladder and Prostate	94	91	94	97	88	82	57

TABLE 2.
Death Rates in Metropolitan Area and Rest of State.

Period.	Deaths per 1,000 of Population.		
	Greater Melbourne.	Remainder of State.	Whole State.
1880-1885	20.10	11.85	14.65
1886-1890	21.04	12.76	16.05
1891-1895	16.70	12.33	14.07
1896-1900	15.60	12.54	13.73
1901-1905	14.01	11.67	12.70
1906-1910	12.90	10.96	11.82
1911-1915	12.98	10.25	11.51
1916	12.94	10.51	11.70
1917	11.46	9.25	10.36
1918	11.82	9.57	10.70
1919	15.57	10.85	13.21
1920	12.61	9.76	11.19
1921	11.37	9.62	10.51

TABLE 3.
Death Rates at certain Age Groups in Victoria.

Age Groups.	Deaths per 1,000 at each age.					
	Males.			Females.		
	1881-1890.	1891-1900.	1902-1911.	1881-1890.	1891-1900.	1902-1911.
Under 5	44.79	39.29	26.73	39.46	34.09	22.35
5 to 10	4.06	3.36	2.16	3.92	3.12	2.03
10 to 15	2.65	2.20	1.87	2.56	2.06	1.78
15 to 20	4.03	3.28	2.72	4.17	3.43	2.80
20 to 25	6.35	4.79	3.51	5.81	4.81	3.59
25 to 35	7.72	6.60	4.75	7.90	6.89	5.01
35 to 45	11.23	9.03	7.81	10.93	8.68	7.16
45 to 55	19.28	15.32	13.48	14.84	12.12	9.96
55 to 65	33.25	32.90	25.38	23.49	23.64	18.80
65 to 75	61.13	62.99	59.04	50.32	45.87	46.71
75 and over	137.18	145.05	157.26	129.00	124.33	131.77
All ages	16.55	15.47	13.30	13.30	12.36	10.66

TABLE 4.
Infantile Mortality.

Period.	Deaths under 1 year per 100 births in—		
	Greater Melbourne.	Remainder of State.	Whole State.
1881-1890	17.14	9.50	12.68
1891-1900	13.36	9.60	11.11
1901-1905	11.26	8.45	9.58
1906-1910	9.47	6.95	8.00
1911	7.82	6.12	6.87
1912	9.02	6.05	7.45
1913	7.63	6.51	7.05
1914	8.45	7.24	7.83
1915	7.99	5.77	6.88
1916	8.56	6.29	7.46
1917	6.55	4.72	5.67
1918	7.09	5.16	6.17
1919	7.87	5.65	6.80
1920	8.41	6.21	7.38
1921	7.40	7.11	7.27

TABLE 5.
Causes of Infantile Mortality.

Cause of Death.	Deaths under 1 year per 1,000 Births in—						
	1901-10.	1916.	1917.	1918.	1919.	1920.	1921.
Diarrhoeal Diseases, all forms	24·62	18·78	9·90	11·90	12·21	14·83	16·72
Wasting Diseases (Marasmus, Atrophy, &c.)	12·74	15·65	12·68	13·58	10·63	11·71	9·86
Prematurity	14·99	13·75	13·59	15·57	18·12	16·76	16·49
Acute Bronchitis, Broncho-pneumonia, Pneumonia	8·13	7·27	5·36	6·39	6·10	6·65	6·77
Congenital Defects and Malformations	4·86	4·88	3·36	3·51	4·24	5·11	4·64
Convulsions	3·10	1·64	1·36	1·08	1·33	1·11	1·43
Whooping Cough	2·52	2·16	1·57	2·12	·47	3·09	1·91
Violence	2·47	·88	·91	1·01	·63	1·19	1·29
Other Causes	14·46	9·55	7·96	6·55	14·26	13·36	13·54
Total all causes	87·89	74·56	56·69	61·71	67·99	73·81	72·65

TABLE 6.
Infantile Mortality in Urban and Rural Districts.

Period.	Deaths under 1 year per 100 Births in—				
	Melbourne and Suburbs.	Ballarat and Suburbs.	Bendigo and Suburbs.	Geelong and Suburbs.	Rest of the State.
1907	8·57	8·69	9·03	8·49	5·80
1908	9·83	9·52	11·37	10·33	7·12
1909	8·39	11·31	9·54	8·94	5·40
1910	9·23	10·19	9·44	6·57	6·01
1911	7·82	7·70	8·41	6·11	5·82
1912	9·02	10·04	8·36	6·73	5·53
1913	7·63	8·95	9·10	7·10	6·09
1914	8·45	12·31	9·45	8·91	6·58
1915	7·99	8·51	7·71	7·04	5·30
1916*	8·56	7·93	8·16	7·25	5·97
1917	6·55	7·01	5·62	4·76	4·49
1918	7·09	5·54	5·86	7·16	4·95
1919	7·87	6·04	6·78	8·00	5·38
1920	8·41	9·04	9·57	6·94	5·72
1921	7·40	6·77	10·34	7·38	6·90

TABLE 7.
Infantile Mortality in Melbourne and Suburbs.

Municipality.	Deaths under 1 year per 100 births in—							
	1910-1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.
Coburg Town	12·03	10·03	8·15	9·73	10·38	13·42	9·75	9·16
Port Melbourne City	12·00	14·24	13·82	7·88	11·90	9·13	10·29	9·41
Fitzroy City	11·24	11·26	13·79	11·60	9·99	11·45	13·09	10·70
Richmond City	10·23	8·36	9·73	7·67	9·14	11·73	7·06	7·19
Preston Shire	10·01	11·83	10·72	8·18	5·96	10·34	14·67	4·92
Collingwood City	9·89	11·51	12·28	10·10	9·90	10·99	9·23	8·26
Melbourne City	9·22	9·72	10·39	8·13	8·78	8·85	12·66	11·47
South Melbourne City	9·05	7·93	11·05	7·87	9·73	10·27	11·36	11·81
Brunswick City	8·50	9·37	8·57	7·47	8·14	10·10	10·63	5·84
Footscray City	8·11	8·16	8·75	6·61	5·80	8·19	9·50	7·22
Williamstown City	8·03	8·09	8·20	6·65	6·02	7·35	8·79	7·03
Brighton City	7·84	5·85	7·72	5·88	7·56	3·65	5·20	5·41
Oakleigh Borough	7·65	9·09	8·20	6·55	7·28	7·34	9·00	8·37
Prahran City	7·27	5·99	6·79	4·44	6·52	5·83	7·15	5·18
St. Kilda City	6·38	7·29	6·67	8·38	6·65	6·30	8·08	5·71
Caulfield City	5·87	4·89	6·25	5·89	6·95	4·40	4·01	4·33
Essendon City	5·79	5·90	6·33	4·49	5·62	6·19	6·78	6·54
Hawthorn City	5·72	4·98	8·07	4·89	6·38	6·00	6·73	5·79
Camberwell City	5·58	2·72	3·82	4·93	5·53	4·85	6·21	4·57
Malvern City	5·51	5·99	6·50	3·52	5·25	5·21	5·02	5·97
Northcote City	5·47	6·95	8·16	6·46	8·40	8·09	6·87	5·41
Kew City	4·76	3·05	4·94	2·59	4·98	3·11	5·78	4·88
Sandringham Town	..	..	..	5·79	8·77	8·53	8·54	6·98

TABLE 8.
Causes of Deaths under One Month.

Cause of death of Infants under one month.	Number of deaths of Infants under one month in—											
	Melbourne and Suburbs.						Victoria.					
	1916.	1917.	1918.	1919.	1920.	1921.	1916.	1917.	1918.	1919.	1920.	1921.
Diarrhoeal Diseases (all forms)	16	12	17	17	7	11	33	26	28	32	18	26
Wasting Diseases (Marasmus, Atrophy, &c.)	146	89	115	103	120	78	253	185	199	203	228	182
Prematurity	276	240	271	308	361	322	450	424	459	537	583	548
Bronchitis, Broncho-pneumonia, Pneumonia	26	18	24	16	18	23	37	27	44	29	33	37
Convulsions	13	11	9	13	11	16	33	30	21	22	24	37
Congenital Defects and Malformations ..	68	59	44	48	65	73	112	90	80	97	128	123
Violence	3	10	8	11	16	12	10	14	12	15	21	18
Syphilis	10	8	6	4	8	2	10	8	9	4	8	4
Other Causes	113	110	106	132	127	141	203	194	174	224	227	262

TABLE 9.
Births and Birth Rates in Victoria since 1899.

Year.	Males.	Females.	Total.	Rate per 1,000 of the Population.
1900	15,834	14,945	30,779	25.79
1901	15,876	15,132	31,008	25.72
1902	15,583	14,878	30,461	25.05
1903	15,115	14,454	29,569	24.28
1904	15,313	14,450	29,763	24.42
1905	15,523	14,584	30,107	24.57
1906	15,716	15,128	30,844	24.91
1907	15,989	15,380	31,369	25.03
1908	16,073	15,028	31,101	24.56
1909	16,092	15,457	31,549	24.62
1910	16,411	15,026	31,437	24.20
1911	16,944	16,100	33,044	25.03
1912	18,244	17,573	35,817	26.41
1913	18,436	17,542	35,978	25.82
1914	18,549	17,676	36,225	25.45
1915	17,821	17,189	35,010	24.55
1916	17,625	16,614	34,239	24.30
1917	17,222	15,813	33,035	23.50
1918	16,176	15,425	31,601	22.29
1919	16,227	15,394	31,621	21.57
1920	18,648	17,566	36,214	24.07
1921	18,289	17,304	35,593	23.15

TABLE 10.
Death Rate per 1,000,000 of the Population in Victoria for the Year 1921 from Tuberculosis.

Nature of Disease.	Death Rate per 1,000,000.
Tuberculosis of the Lungs	667
Acute Miliary Tuberculosis	14
Tuberculous Meningitis	56
Abdominal Tuberculosis	14
Potts Disease	14
White Swellings	3
Tuberculosis of other Organs	20
Disseminated Tuberculosis	16

APPENDIX.

BOARDS OF HEALTH FROM THE FOUNDATION OF THE COLONY UNTIL THE CREATION OF THE COMMISSION OF PUBLIC HEALTH.

On 1st July, 1851, that portion of New South Wales known as the Port Phillip District came into separate legislative existence as the Colony of Victoria. Pending the passing of health legislation by the Legislative Council of Victoria, the New South Wales laws relating to sanitation were in force. The administration of these laws was in the hands of the Colonial Secretary, and his adviser was the Chief Medical Officer.

On 19th December, 1854, the first Health Act (18 Vic. No. 13), entitled "An Act for Promoting the Public Health in Populous Places in the Colony of Victoria," came into force. This Act created a Central Board of Health to consist of not less than three or more than five members, to be appointed by the Lieutenant-Governor in Council. The members of this Board and the dates of appointment and retirement, are shown below :—

CENTRAL BOARD OF HEALTH.

Constituted under 18 Victoria No. 13. Limited to five members.

Name of Member.	Date of Appointment.	Date of Retirement.
Dr. William McCrea	21.2.55	6.9.67
Captain Andrew Clarke, R.E.	21.2.55	30.12.59
Dr. Richard Youl	21.2.55	6.9.67
Mr. C. Pasley	9.7.56	31.8.60
Mr. W. M. Bell	9.7.56	6.9.67
Mr. W. W. Wardell	31.8.60	6.9.67
Mr. J. T. Smith	30.12.59	6.9.67

The Central Board of Health was under the control of the Colonial Secretary until the 23rd November, 1855, when the Constitution Act came into force. With the passing of the Constitution Act the office of Colonial Secretary disappeared, to be replaced by that of the Chief Secretary.

On the 6th September, 1867, Act 30 Vic. 310 came into force. This Act amended Act 18 Vic. No. 13 by providing for the appointment by the Governor in Council of seven members.

The table following shows the members of this Board and the dates of appointment and retirement :—

CENTRAL BOARD OF HEALTH.

Act of 1867, 30 Victoria No. 310. Limited to seven members.

Name of Member.	Date of Appointment.	Date of Retirement.
Dr. William McCrea	6.9.67	11.7.79
Dr. Richard Youl	6.9.67	28.7.84
Mr. W. M. Bell	6.9.67	31.12.67
Mr. J. T. Smith	6.9.67	4.12.78
Mr. W. W. Wardell	6.9.67	3.4.78
Rev. Dr. Bleasdale	12.2.69	23.1.78
Dr. William Crooke	12.2.69	22.1.79
Mr. J. B. Crews	12.2.69	5.11.83
Dr. W. H. Embling	22.1.79	5.11.83
Dr. C. H. Hardy	5.3.79	5.4.83
Rev. E. McIvor	22.1.79	5.11.83
Mr. Clement Hodgkinson	21.2.79	31.1.83
Dr. St. John Clarke	28.10.79	5.11.83
Mr. C. R. Blackett	31.1.83	5.11.83
Professor H. B. Allen	15.9.83	5.11.83

The constitution of the Board was not again altered till the Act of 1883 (47 Vic. No. 782) was passed. This Act came into force on 3rd November, 1883, and provided for the appointment by the Governor in Council of nine members.

The names of members, dates of appointment and retirement, appear below :—

CENTRAL BOARD OF HEALTH.

Act of 1883, 47 Victoria No. 782. Limited to nine members.

Name of Member.	Date of Appointment.	Date of Retirement.
Professor H. B. Allen	15.9.83	25.8.84
Mr. C. R. Blackett	5.11.83	31.1.90
Mr. G. T. Coppin, M.L.C.	5.11.83	10.5.89
Professor W. C. Kernot	5.11.83	31.1.90
Mr. J. C. Newberry	5.11.83	31.1.90
Dr. James Robertson	5.11.83	25.8.84
Dr. J. M. Rose, M.L.A.	5.11.83	10.5.89
Hon. N. Thornley, M.L.C.	5.11.83	31.7.84
Dr. Richard Youl	5.11.83	28.7.84
Mr. A. P. Akehurst	28.7.84	31.1.90
Dr. Shields	31.7.84	31.1.90
Mr. W. M. Fehon	21.11.84	26.10.88
Dr. Tweeddale	10.3.85	31.1.90
Professor Orme Masson	30.11.88	31.1.90

The Board as constituted by the Act of 1883 continued until the *Public Health Act* 1889 (53 Vic. No. 1044) came into operation on 1st August, 1890. This Act provided for the abolition of the Central Board of Health and the substitution therefor of the Board of Public Health.

A Department of Public Health was also created and provision made for the office of Minister of Health, and for the appointment of a permanent head and a medical inspector. This Act provided for a Board of nine members, consisting of the permanent head (the Chairman), the medical inspector, and seven members elected by councils.

In August, 1894, an amending Act was passed which provided that of the two members appointed by the Governor in Council one shall be the medical inspector, and that one of such appointed members shall be Chairman.

The Board of Public Health continued in existence from 1st February, 1890, to 24th March, 1920, when it was replaced by the Commission of Public Health.

The following indicates the members of the Board and the dates of appointment and retirement :—

BOARD OF PUBLIC HEALTH.

Act of 1889, 53 Victoria No. 1044. Limited to nine members.

Name of Member.	Date of Appointment.	Date of Retirement.
Mr. C. A. Topp	1.2.90	3.5.94
Dr. D. A. Gresswell	1.2.90	10.12.04
Alderman J. C. Stewart	1.2.90	16.2.92
Councillor J. Holden	1.2.90	6.2.01
Councillor R. A. Forbes	1.2.90	21.8.01
Councillor William Little	1.2.90	21.12.92
Councillor J. H. Gearing	1.2.90	31.12.06
Councillor F. W. Drevermann	1.2.90	5.7.00
Councillor W. Anderson	1.2.90	3.5.98
Councillor C. C. Shoppee, M.L.A.	1.1.93	31.12.07
Councillor James Moloney	16.2.92	31.12.93
Hon. Councillor C. J. Ham	1.1.93	26.11.02
Mr. James Styles, M.L.A.	17.6.96	30.11.10
Councillor H. A. Austin	27.7.98	24.3.20
Councillor A. H. Smith	17.10.00	31.12.19
Councillor J. L. Dangerfield	15.5.01	31.12.03
Councillor F. G. Wood	13.11.01	31.10.10
Alderman William Burton	1.1.03	24.3.20
Councillor Dr. J. Johnston	1.1.04	22.4.08
Dr. W. Perrin Norris	1.1.05	2.6.09
Councillor J. P. Carolin	1.1.07	22.1.13
Councillor J. J. Brokenshire	1.1.08	31.3.19
Councillor W. H. Treganowan	15.7.08	31.12.18
Dr. B. B. Ham	25.8.09	31.5.13
Councillor J. Baragwanath	16.12.10	24.3.20
Mr. F. G. Wood	30.11.10	24.3.20
Councillor J. H. Curnow	22.1.13	24.3.20
Dr. E. Robertson	1.6.13	24.3.20
Councillor Dr. A. Wheeler	1.1.19	24.3.20
Councillor W. D. Hill	18.7.19	24.3.20
Councillor A. Prentice	1.1.20	24.3.20

The *Health Act* 1919 abolished the Board of Public Health, and in its place created the Commission of Public Health, consisting of seven members, as follows:—

- (a) The Chief Health Officer.
- (b) Six members appointed by the Governor in Council—
 - (i) One member representing metropolitan municipalities,
 - (ii) One member representing extra metropolitan cities, towns, and boroughs,
 - (iii) One member representing extra metropolitan shires,
 - (iv) Three other members.

Of the appointed members, not more than two shall be medical practitioners.

The members first appointed and still holding office are:—

Dr. E. Robertson (Chairman).

Mr. R. de Clare Wilks, representing metropolitan municipalities.

Councillor J. H. Curnow, representing extra metropolitan cities, towns, and boroughs.

Councillor J. Hancock, representing extra metropolitan shires.

Drs. W. E. Summons and W. S. Newton, representing medical interests.

Mr. B. A. Smith, representing engineering interests.

MINISTERIAL CONTROL OF BOARD.

From the date of separation from New South Wales (1st July, 1851) until the Constitution Act became law (23rd November, 1855) the Board was a branch of the Colonial Secretary's Department. With the passing of the Constitution Act, the office of Colonial Secretary disappeared, to be replaced by that of the Chief Secretary. The Board remained under the control of the Chief Secretary until the coming into force of the *Public Health Act* 1889. This Act created a Department of Health, with a separate Minister of Health.

CHAIRMEN OF THE BOARDS OF HEALTH.

The table following shows the names of the Chairmen, with the dates of appointment and retirement, from the creation of the Board until the commencement of the *Health Act* 1919:—

Name of Chairman.	Date of Appointment.	Date of Retirement.
Dr. William McCrea	21.2.55	11.7.79
Dr. Richard Youl	11.7.79	28.7.84
Mr. A. P. Akehurst	28.7.84	31.1.90
Mr. C. A. Topp	1.2.90	3.5.94
Dr. D. A. Gresswell	3.5.94	10.12.04
Dr. W. Perrin Norris	1.1.05	2.6.09
Dr. B. B. Ham	25.8.09	31.5.13
Dr. E. Robertson	1.6.13	..

The first Chairman was Dr. Wm. McCrea, who held at the same time the position of Chief Medical Officer—a position analogous to that of the Government Medical Officer at present existing. Dr. Richard Youl succeeded Dr. McCrea, and retained office until 28th July, 1884, when he was appointed Coroner. Mr. Akehurst, the next Chairman, was an officer of the Law Department. He retired on 31st January, 1890, when the Act of 1889 came into operation. This Act created a Department of Health, which necessitated the appointment of a Minister and a permanent head. Mr. C. A. Topp was appointed as the first permanent head and also Chairman on 1st February, 1890. He occupied these positions until 3rd May, 1894, when he was succeeded by Dr. Gresswell. Dr. Gresswell held office until his death on 10th December, 1904. He was succeeded by Dr. Norris, who occupied the position until 2nd June, 1909, when he joined the Commonwealth Service as Director of Quarantine. Dr. Ham followed Dr. Norris, and continued in office until his resignation on 31st May, 1913, when he was succeeded by Dr. Robertson.

SECRETARIES OF BOARDS OF HEALTH.

The Secretaries of the Board of Health, with the dates of appointment and retirement, are included in the list below :—

Name of Secretary.	Date of Appointment.	Date of Retirement.
Mr. F. W. Thomas	21.2.55	31.7.65
Mr. T. R. Wilson	1.8.65	5.10.81
Mr. J. J. Shillinglaw	6.10.81	31.12.84
Mr. J. W. Colville	15.5.85	31.10.10
Mr. T. W. H. Holmes	16.1.11	13.6.20
Mr. T. Dimelow	14.6.20	..

OFFICES OF THE BOARD.

The first Board's office was situated at the Old Treasury until the 20th May, 1890, when the premises situate at No. 8 Collins-street were occupied. These premises were vacated on the 19th November, 1894, when the Board's staff was transferred to the Railway Offices, Spencer-street. The work of the Board was carried on at these offices until the 8th November, 1904, when the staff was transferred to the Record Office Buildings, 295 Queen-street.

