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CHAPTER VIII.

PUBLIC HEALTH AND RELATED INSTITUTIONS.

A—PUBLIC HEALTH.

§ 1. State Public Health Legislation and Administration.

1. *New South Wales*.—The Department of Public Health comes under the jurisdiction of the Minister for Health, with an Under Secretary as Permanent Head of the Department for administrative purposes.

There is also a Director-General of Public Health and Chief Medical Adviser to the Government, who is ex-officio President of the Board of Health and Chairman of the Nurses' Registration Board. He is assisted by a Deputy Director-General.

The Inspector-General of Mental Hospitals who, under present arrangements, is also the Director-General of Public Health, is responsible for the administration of that part of the Lunacy Act relating to the care and treatment of mental patients. There is also a Deputy Inspector-General.

The following statutory authorities are constituted under Acts administered by the Minister for Health—Board of Health (Public Health Act), Hospitals Commission of N.S.W. (Public Hospitals Act), Milk Board (Milk Act), Metropolitan Meat Industry Commissioner (Meat Industry Act), Dental Board (Dentists Act), Pharmacy Board (Pharmacy Act), Medical Board (Medical Practitioners Act), Board of Optometrical Registration (Opticians Act), Ambulance Transport Service Board (Ambulance Transport Service Act), Physiotherapists Registration Board (Physiotherapists Registration Act) and Nurses' Registration Board (Nurses' Registration Act).

The Department's activities extend over the whole of the State and embrace all matters relating to the public health and the general medical work of the Government. These include the following:—(a) Supervision of the work of local authorities (municipal and shire councils) in relation to public health matters connected with the following Acts:—Public Health Act, Noxious Trades Act, Pure Food Act and Private Hospitals Act; (b) Scientific Divisions (Government Analyst, Microbiological Laboratory, and Division of Industrial Hygiene); (c) Tuberculosis and Social Hygiene Divisions; (d) Medical Officers of Health at Sydney, Broken Hill, Newcastle, Wollongong, Bathurst and Lismore; (e) State Hospitals and Homes and State Sanatoria; (f) Mental Hospitals; (g) Public Hospitals (Hospitals Commission); (h) Maternal and Baby Welfare (Baby Health Centres); (i) School Medical and Dental Services; and (j) Publicity, Nutrition and Library Services.

2. *Victoria*.—Administration of all the provisions of the Health Acts insofar as they can be carried out within the geographical limits of any municipality, is entrusted to the Council of that municipality.

Municipal administration is co-ordinated and supervised by the Commission of Public Health, composed of the Chief Health Officer as chairman, and six members representing the Government and municipalities—cities, towns, boroughs and shires. On this basic structure the manifold activities of a modern Health Department have been built.

The Health Act 1919 and later Amending Acts were consolidated in Health Act 1928 without any essential amendments bearing on administration.

The Ministry of Health Act 1943, made the Minister responsible for all Acts administered up to the time by the Department of Health, as well as the Hospitals and Charities Acts and the Mental Hygiene Acts, thus placing under one Ministry the many and diverse operations of State medicine.

The Chief Health Officer administers the Maternal and Child Hygiene Branch, embracing pre-natal hygiene, infant health, pre-school child hygiene, school medical and dental services, and the newly constituted Tuberculosis Branch, which comprises State sanatoria, tuberculosis clinics and tuberculosis bureaux.

Infectious disease control is carried out by the eight District Health Officers and their staffs, in collaboration with the local health authorities where any specific infection is unduly prevalent. Immunization against diphtheria is constantly practised, and largely owing to this work the incidence of the disease has been reduced from 3,254 cases and 93 deaths in 1927 to 400 cases and 13 deaths in 1948. More than half the school children have been immunized in municipal campaigns, in addition to many others who have received treatment from their family doctors.

Most large country towns in Victoria are now seweraged and apart from a mild epidemic in a suburb of Melbourne in 1944 typhoid fever has been reduced to a negligible disease.

Sewerage projects, public buildings and hospital construction are the responsibility of the Engineering Division of the Health Department. This Division performs an advisory and supervisory function in municipal undertakings.

The Industrial Hygiene Division supervises the environmental conditions of the 300,000 persons employed in industry in the State and consists of two medical officers, two special scientific officers and four inspectors.

The control and treatment of venereal diseases is undertaken by a special division of the Department, and clinics for prophylaxis and treatment are attached to all hospitals receiving Government aid throughout the State.

Food and drug standards are specified by a committee of specially qualified members. Municipal and departmental officers ensure that these standards are observed.

Acts administered by the Department of Health include—Health Acts, Goods Act, Infectious Diseases Hospital Acts, Masseurs Acts, Midwives Act 1928, Nurses Acts, Venereal Diseases Act 1928, Heatherton Sanatorium Act, Birth Notification Acts, Hairdressers Registration Acts, Anti-Cancer Council Act, Dietitians Registration Act, Mental Hygiene Acts, Mental Deficiency Acts, Hospitals and Charity Acts.

3. **Queensland.**—(i) *General.* The Health Acts 1937 to 1948, are administered by the Director-General of Health and Medical Services, under the direction of the Minister for Health and Home Affairs. The executive staff consists of the Director-General, Deputy Director-General, State Health Officer, and twenty-seven food and sanitary inspectors and cadets. In addition, there is a Laboratory of Microbiology and Pathology under the control of a Director assisted by a medical officer, bacteriologists, and ancillary staff. Among other duties, the staff of this laboratory performs any necessary medico-legal work. A medical officer controls the Enthetic Diseases Section with the assistance of a female medical officer, nurses, and trained attendants, while a microscopist and an inspector have charge of the Hookworm Campaign. A Weil's Disease Campaign with head-quarters in Innisfail, North Queensland, is operating with a staff of five health inspectors.

The following services also come under the purview of the Department:—School Health Services, Maternal and Child Welfare Services, Chemical Laboratory, Mental Hygiene, Industrial Hygiene, and supervision of private hospitals.

The Health Act of the State have made it obligatory for cases of certain diseases to be notified to the Health Department. These diseases are either of an infectious or contagious nature.

Branch offices, in charge of inspectors, are located at Toowoomba, Rockhampton, Mackay, Townsville, Cairns and Thursday Island, which, in conjunction with the Brisbane staff, are responsible for the enforcement of provisions of the Health Acts and Regulations dealing with food and drugs, milk sellers, health (food supply), fish supply, poisons, etc., and are concerned in a supervisory capacity with Local Authority health administration.

(ii) *Immunization*.—A system of immunization of young children is being carried out by Local Authorities as a preventive of diphtheria and whooping cough.

Diphtheria. Diphtheria prophylaxis by means of formalized toxoid has continued to grow in favour, and, in proportion to population, more children have been immunized in Queensland than in any other State in Australia. It has been observed that in a few instances children who have submitted to immunizing measures have later developed diphtheria, but no deaths have occurred in such cases.

Within the Greater Brisbane area, the City Health Authority, in conjunction with the School Health Services, carries out a full programme of diphtheria immunization of school and pre-school children, both at the schools and daily at the City Hall. These measures are exercising a beneficial effect. It is estimated that 88 per cent. of children in Brisbane between the ages of 1 and 14 years have been immunized. Similar campaigns are carried out by many other Local Authorities.

Among the many thousands of children annually immunized against diphtheria in Queensland by the formalized toxoid method, no instance of dangerous symptoms arising therefrom has been reported, and the people of the State are educated to the value of diphtheria immunization. Alum toxoid has not been employed for public immunization in Queensland to any extent.

Whooping Cough.—As a result of the improvement in efficacy of the pertussis or whooping cough vaccine, several Local Authorities have inaugurated a campaign against this disease. The Brisbane City Council has already commenced, and is immunizing children free of charge at four sessions per week, in addition to which its Medical Officer of Health visits institutions for this purpose.

Immunizing agents against diphtheria and whooping cough are provided free to Local Authorities by the Commonwealth Government.

(iii) *Hospitals*. (a) *General*. There is a system of public hospitals throughout the State. The Brisbane General, South Brisbane Auxiliary, the Children's and the Brisbane Women's Hospitals, provide public hospital accommodation for Brisbane. In addition, there are 68 private hospitals registered in the State, 35 per cent. of which are in Brisbane. The Mater Misericordiae has public, intermediate, private, and children's sections, and St. Martin's is a large private hospital. In the whole State, during 1947-48, there were 112 public hospitals, a tuberculosis sanatorium, and seven ambulance brigades, which were administered by 63 District Hospital Boards. Five other hospitals received aid from the Government. There were also 105 public maternity hospitals or sections of the above hospitals.

Public hospitals supply free consultation and treatment, including radiological and pathological service, to out-patients. In-patient treatment in the public wards is also free. In conjunction with public hospitals, nineteen dental clinics (excluding the Brisbane Dental Hospital) and sixteen branch clinics are in operation.

The above-mentioned 68 private hospitals in Queensland, are registered under the provisions of the Health Acts 1937 to 1948 (Division XI.). Licences may be issued under four categories:—(a) A general private hospital for medical, surgical, and maternity cases; (b) A lying-in hospital for maternity cases only; (c) A hospital for mental cases only (other than persons who have been certified as insane pursuant to the *Insanity Acts*); (d) Any hospital for the treatment of mothers and/or infants.

Convalescent homes are not licensed or registrable.

Lepet settlements are situated at Peel Island, in Moreton Bay, and at Fantome Island, near Townsville, each with a full-time medical officer. The former is for white persons only, and the latter for aborigines. In Brisbane there is an Institution for the Blind, and an Institution for the Deaf.

(b) *Public Hospitals*.—The Hospitals Act Amendment Act 1944, provided, as from 1st July, 1945, that all the public hospitals in the State would come within the jurisdiction of District Hospitals Boards. Each board consists of not less than five and not more than nine members, including the chairman. One of the members is a representative elected by the component Local Authorities. The chairman and the remaining members are appointed by the Governor in Council.

The State Government is responsible for the net annual cost of administration and maintenance of all hospitals controlled by Hospital Boards but from 1st January, 1946, the Commonwealth, under the Hospital Benefits Scheme, paid six shillings per patient per day for patients in public and private sections of public hospitals. The State Government agreed not to make any charge for patients in public sections of public hospitals. The Commonwealth subsidy extends to approved private hospitals. The amount was increased to eight shillings per day from 1st July, 1948, for patients in public wards of public hospitals, and from 1st November, 1948, for all other public hospital patients and private hospital patients.

4. **South Australia.**—The Central Board of Health consists of five members, three of whom (including the Chairman, who is a permanent head of the Department) are appointed by the Government, while one each is elected by the metropolitan local boards and all other local boards. The Health Act 1935–1947 provides that every municipal and district council shall be the Local Board of Health for their respective districts. There are 143 of these local boards under the general control and supervision of the Central Board. The Central Board of Health Department administers the following Acts—The Health Act, 1935–1947; ; The Food and Drugs Act, 1908–1943; The Noxious Trades Act, 1943; The Dangerous Drugs Act, 1934; The Bakehouses Registration Act, 1945–1947; The Venereal Diseases Act, 1947; The Early Notification of Births Act, 1926; and the Vaccination Act, 1936.

The Board is also concerned to some degree with Acts relating to local government, abattoirs and cremation. The Department also conducts the State X-ray Health Survey. There are two full-time medical officers who assist the Chairman in the administration of the various Acts. Four inspectors appointed under the Health and Food and Drugs Act periodically visit the local districts and see generally that the local boards are carrying out their duties. An inspector in company with an analyst visits country districts and purchases samples of milk which are analysed on the spot. A nurse inspector is employed in advising and assisting local boards in connexion with outbreaks of infectious diseases. In outlying districts there are three part-time officers of health and fifteen part-time inspectors directly responsible to the Board.

5. **Western Australia.**—The legislation in this State is the Health Act 1911–1948. This was consolidated and reprinted in 1944 but since that date three separate amendments have been passed. The central authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The local authorities comprise (a) Municipalities, and (b) Road Boards.

It is also provided that a Local Board of Health may be set up in lieu of a Road Board. This method of control is no longer used and in fact the whole State is under the local administration of the respective Municipality or Road Board. In case of emergency the Commissioner may exercise all the powers of a Local Health Authority in any part of the State.

Interesting features of recent legislation are as follows:—(a) Act No. 70 of 1948 which gives compulsory power to control sufferers from tuberculosis; and (b) Act No. 71 of 1948, which provides that within areas declared for the purpose, all still-born infants must be submitted for post-mortem examination and provides for compulsory notification of still births to the Commissioner by the attending medical practitioner.

All the usual provisions for public health control are embodied in the Health Act including the medical and dental examination of school children, control of public buildings, inspection of food and the provision of standards thereof. The Nurses Registration Act now makes provision for the registration of nurses in each of the following branches of the nursing profession—general, midwifery, tuberculosis, infant health, mothercraft, mental, and children's.

6. **Tasmania.**—The Department of Public Health is under the jurisdiction of the Minister for Health with an Under Secretary as permanent head of the Department through whom the following medical directors are responsible for the administration of the laws and services &c. indicated:—(a) Director of Public Health, responsible for the administration of the laws relating to public health, food and drugs, places of public entertainment and cremation; and for the following services, &c.:—School Medical

Service, Maternal and Child Welfare, Venereal Disease Clinics, Analytical Laboratory, and Mothercraft Home; (b) Director of Hospital and Medical Services, responsible for the administration of the laws relating to hospitals and nurses' registration, and for the following services, &c.:—Government Medical Service, Bush Nursing Service, Institutions for the Aged and Infirm at St. John's Park and the Home for Invalids; (c) Director of Tuberculosis, responsible for the administration of the laws relating to tuberculosis, and for the management of Chest Clinics, and Sanatoria at New Town and Perth; and (d) Director of Mental Hygiene, responsible for the administration of the laws relating to mental hospitals, and for the management of Lachlan Park Hospital (Hospital for Insane) and Millbrook Psychopathic Home.

§ 2. The National Health and Medical Research Council.

In 1926 the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), "for the purpose of securing closer co-operation between Commonwealth and State Health Authorities". This Council held sessions each year except in 1932. In 1936, the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—

- To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research;
- To advise the Commonwealth Government as to the expenditure of money specifically appropriated as money to be spent on the advice of this Council;
- To advise the Commonwealth Government as to the expenditure of money upon medical research and as to projects of medical research generally;
- To advise Commonwealth and State Governments upon the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The Council consists of the Commonwealth Director-General of Health (as Chairman), two officers of his Department, the official head of the Health Department in each State, together with representatives of the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Royal Australasian College of Physicians, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the Australian Dental Association, and (jointly) the four Australian Universities having medical schools. A prominent layman and laywoman, appointed by the Commonwealth Government, also serve on the Council.

The first session of the National Health and Medical Research Council met at Hobart in February, 1937; the twenty-sixth session met at Sydney in November, 1948.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of funds to provide assistance:—

- (a) to Departments of the Commonwealth or of a State engaged in medical research;
- (b) to Universities for the purpose of medical research;
- (c) to institutions and persons engaged in medical research;
- (d) in the training of persons in medical research.

Approved research institutions under this system now number 49. During the year 1948, grants numbered 50 in the following fields:—allergy, bacteriology, biochemistry, bio-physics, clinical, dentistry, epidemiology, neurology, neuro-physiology, nutrition, obstetrics, ophthalmology, physiology and pharmacology, and tuberculosis and virus diseases. In certain instances, equipment and apparatus have been made available by the Council; this has greatly facilitated some specialized lines of research. The wide scope of work being carried out is greatly assisted by the formation of committees which meet regularly and advise the Council in such subjects as—industrial hygiene, maternal and child welfare, nutrition, radio-active isotopes, streptomycin control and distribution, tropical physiology and hygiene, tuberculosis and the latest developments in X-ray technology and application.

The research work being done under these grants is of a high standard, many of the individual investigators enjoying international reputation. Beyond this practical achievement, the original objectives of the Council are being attained in encouraging young graduates to take up research work and in securing a continuity and permanence of medical research in Australia.

Since the cessation of hostilities, the Council has had the responsibility of selecting persons to take up fellowships awarded by the Nuffield and Rockefeller Foundations, the Carnegie Corporation and the Australian Red Cross Society.

In addition to this, the Council has set aside monies for the specific purpose of sending its fellows abroad for overseas experience and training.

§ 3. The Commonwealth Department of Health.

1. **General.**—An Order-in-Council dated 3rd March, 1921, defined various functions to be performed by the Commonwealth Department of Health in addition to Quarantine which at that time was the only specific public health power of the Commonwealth Parliament under the Commonwealth Constitution. An amendment of the Constitution in 1946 gave the Commonwealth Government power to provide a complete Health Service to the nation including medical advice and treatment. The National Health Services Act 1948 assented to on 21st December, 1948, provides for Commonwealth activity in establishing hospitals, laboratories, health centres and clinics, post-graduate training in all branches of medicine, courses of training in the Auxiliary Medical Services, research, prevention of disease and medical education. Many essential services have been developed by the Department to meet current needs and to further public health throughout Australia. In earlier issues of the Official Year Book reference has been made to several features of this development, including: The Royal Commission on National Health, 1925 (see No. 22, pp. 509–10), the International Pacific Health Conferences (see No. 22, p. 510 and No. 29, p. 334), Industrial Hygiene (see No. 18, pp. 522–55), Tropical Hygiene (see No. 22, pp. 506–7, No. 25, pp. 415–7, and No. 32, p. 226), and the Commonwealth Advisory Council on Nutrition (see No. 32, pp. 222–3). Reference to quarantine is made below (see § 4, par. 2).

2. **The Commonwealth Serum Laboratories.**—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot" was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories" and is administered by the Commonwealth Department of Health. The laboratories are now installed in fully equipped buildings and a large staff is employed. At Broadmeadows, near Melbourne, a farm of 254 acres has been developed, under veterinary supervision, for the many thousands of animals required for the work of the laboratories.

The list of biological preparations produced by the laboratories has been extended until at the present time almost the whole range of these products is manufactured and Australia is practically independent of other countries in thus producing its own requirements. Penicillin is being produced in increasingly large quantities, which it is anticipated will shortly suffice for total Australian requirements. Constant research is being conducted into every relevant aspect of bacteriology and immunology and new sera and prophylactic agents are being tested as the growth of medical knowledge opens up new avenues of treatment, prevention and diagnosis. Other original and applied research relating to all aspects of public health is maintained. The laboratories serve as the national centre for the maintenance in Australia of the international standards of the Permanent Commission on Biological Standards (World Health Organization Interim Commission). For the past 25 years the production of veterinary biological products has been a feature of the work of the laboratories. In recent years an extensive development has occurred in this direction and the products are being used in greatly increased amounts in all States for the prevention or treatment of diseases in domestic animals and stock.

3. **The Commonwealth Health Laboratories.**—The fifteen health laboratories of the Department are situated at strategic points throughout Australia. They are located at Darwin, Cairns, Townsville, Rockhampton, Toowoomba, Lismore, Bendigo, Launceston,

Hobart, Port Pirie, Kalgoorlie, Broome, Tamworth, Wollongong and Albury. These laboratories were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide medical practitioners of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other hand, is essential to the efficient investigation of disease and the effective operation of control measures.

From this standpoint, the laboratories have already proved their value in the determination of Weil's disease and endemic typhus in North Queensland, in the investigation of special local problems at Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie and of plumbism at Port Pirie. In these investigations close co-operation has existed with State and local health and hospital services; especially is this so in Queensland where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers hitherto unclassified in that State. In this investigational work, as well as in more routine activities, the laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the Sydney School of Public Health and Tropical Medicine.

A major part of the work performed at the Kalgoorlie laboratory, since its establishment in 1925, has been the medical examination, on behalf of the State Department of Mines, of employees and applicants for employment in the metalliferous mines in Western Australia. These examinations are performed in accordance with the provisions of the State Mines Regulation Act and the Mine Workers' Relief Act, the objects of which are to provide a healthy body of men for the industry and to free the industry of, and protect the future of, those found to be suffering from serious pulmonary disease. The examinations include clinical, laboratory and radiographic investigation. By means of a mobile X-ray unit an annual tour is also made of outlying mining centres.

X-ray facilities are also provided at the Bendigo laboratory, as part of the campaign against tuberculosis, for the examination of miners and other radiographic work in the district.

4. Commonwealth Acoustic Laboratories.—The Department of Health established the first of the series of Acoustic Laboratories in January, 1947, in Erskine House, York-street, Sydney.

The laboratory continued and expanded the work of the Acoustic Research Laboratory which was sponsored by the National Health and Medical Research Council during the years 1942–1946 for the purpose of investigating problems of noise and difficulties of intercommunication in aircraft and tanks. With the cessation of hostilities the Acoustic Research Laboratory directed its attention to the problem of deafness in children, particularly the group whose affliction was caused by the mothers contracting rubella in the early months of pregnancy.

The taking over of the Acoustic Research Laboratory by the Department of Health was influenced by the request from the Repatriation Commission for technical assistance in the matter of the supply of hearing aids to deafened ex-servicemen. Arrangements for this purpose were completed and branch laboratories were established in all other State Capital Cities.

During the year 1948 the Acoustic Laboratories Act was passed to allow the expansion of activities on the following lines :—(1) To carry out the requirements of the Repatriation Commission for deafened ex-Service personnel and to provide a similar service for the Commonwealth Department of Social Services in respect of deafened ex-Service personnel whose disability was not caused by war service; (2) to assist the Education Departments of the States in measuring deafness, fitting aids, and maintaining hearing aid equipment for school children; (3) to act on behalf of various State and other authorities who desire to have independent tests made before assisting financially in the purchase of hearing aids for people under their care; and (4) the investigation of problems associated with noise in industry.

The laboratory in Sydney is now known as the Commonwealth Central Acoustic Laboratory and is responsible for the training of personnel for the whole Acoustic Service, the production of equipment, the calibration of hearing aids and audiometers and the technical administration of the branch laboratories.

5. Commonwealth Bureau of Dental Standards.—The National Health and Medical Research Council sponsored the Dental Materials Research Laboratory during the years 1939–1946, for the purpose of assisting the Defence Services, the Medical Equipment Central Committee and other Government Departments in the selection of, and purchase of, suitable dental equipment and materials. Valuable assistance was also given to Australian manufacturers of dental materials in relation to improvement of their products and the development of new materials.

Much of the work was of a routine nature and with the cessation of hostilities the National Health and Medical Research Council decided to cease its sponsorship but recommended that the Department of Health should take over the laboratory as it was serving a good purpose. This was done in January, 1947, and the laboratory was renamed the Commonwealth Bureau of Dental Standards and is at present situated in the grounds of the University of Melbourne.

The functions of the Bureau are as follows:—(1) Original research into dental equipment, materials, techniques and processes; (2) the development, in consultation with a representative committee of the Commonwealth Department of Health, of the Australian Dental Association and the Standards Association of Australia of specifications for dental materials and equipment; (3) regular systematic surveys of dental materials on sale to the profession in Australia, and the reporting of the results of such investigations in recognized Australian scientific journals; and (4) the provision of a consultative service and testing facilities for local manufacturers of dental materials with the view to assisting them in the improvement of existing products and the development of new materials.

6. The School of Public Health and Tropical Medicine.—The Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney as from 4th March, 1930, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The work of the school comprises both teaching and investigation. Courses are held for the University post-graduate diploma of public health and the diploma of tropical medicine and tropical hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Other classes include students in architectural, social and school hygiene, and lay officers and nurses in the tropical services and missionaries. In addition to this work, throughout the war all the resources of the School were made available for the training of medical and hygiene officers and other ranks from all the Services of the Australian and Allied Forces.

Investigational work covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out not only in Australia but in co-operation with the local administrations in Papua, New Guinea, Norfolk Island and Nauru. During the year initial steps to set up sections of Child Health and Occupational Disease were made and selection of suitable staff is proceeding. Further details may be found in previous issues of the Official Year Book (see No. 29, p. 334).

7. The Australian Institute of Anatomy.—Information concerning the Australian Institute of Anatomy at Canberra is given in previous issues of the Official Year Book (see No. 32, p. 919–21). In 1931 the Institute became an integral part of the Commonwealth Department of Health. The work of the Institute on general problems of comparative anatomy has now been concentrated on aspects of structure and function with special reference to the development of the growing child. Biochemical and biological research in this field is being developed in close association with the model kindergarten centres established by the Department in each capital city (see par. 10 below). Work in specialized

aspects of nutrition has steadily increased. The Institute now plays an important part in research and the scientific application of nutritional knowledge under Australian conditions. The background of comparative anatomy and the museums of the Institute are maintained as part of the general plan of work, and an expert zoologist is a member of the body of research workers at the Institute. See also Chapter XXVIII. "Miscellaneous".

8. The Northern Territory Medical Service.—As from 1st April, 1930, the Commonwealth Department of Health assumed administrative responsibility for the medical and health services of the Northern Territory, absorbing the Northern Territory Medical Service. With the growing importance of Darwin as the northern gateway to Australia and as an administrative and service centre its health services were strengthened. A new hospital at Darwin was built and the hospital at Alice Springs was enlarged.

With civilian evacuation during the Pacific war, military control of the medical services operated in the years 1942 to 1945. Civilian control was resumed by the Department during the period November, 1945 to May, 1946, starting at Alice Springs and gradually extending north to Darwin. The hospitals at Alice Springs, Tennant Creek, Katherine and Darwin, and the Health Laboratory at Darwin were re-established as civilian institutions.

An aerial medical service, operated by the Department, is based on Darwin, and comprises two Dragon aircraft and a pilot. The Flying Doctor Service of Australia has a base at Alice Springs, and the medical officers at the hospital act as the doctors for this service.

9. National Fitness.—Health authorities in Australia have closely followed the world-wide movement for the advancement of physical fitness and in several States active work has been proceeding over some years. In 1938, following a recommendation of the National Health and Medical Research Council, the Commonwealth Government agreed to appoint a Commonwealth Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State and local government authorities in the movement. Meetings of this Council are held at regular intervals, at least annually. Meanwhile, active State Councils have been formed in all States. As a result of the recommendations of the central Council, the Commonwealth Government agreed to make available an annual sum of £20,000 for five years and grants were allocated to each State for purposes of organization and to each of the six Australian universities to establish lectureships in physical education. In July, 1941, a National Fitness Act was passed by the Commonwealth Parliament to ensure greater permanence to the movement, and in June, 1942, the Commonwealth grant was increased to £72,500 to include grants to State Education Departments and for the work in the Australian Capital Territory. In 1946 the total grants were extended for a further period of five years. The movement continues to develop and to gain public interest and support throughout Australia.

10. The Pre-school Child.—Sessions of the National Health and Medical Research Council and the reports of the Commonwealth Advisory Council on Nutrition have called attention to the need for greater effort throughout Australia directed towards the care of the growing child, especially during the pre-school period. Movements for the care of the infant and the welfare of the school child are already developed by State authorities as recorded in §§ 7 and 8 below. The Commonwealth Government felt that more could be done for the child of pre-school age, and it was decided to give a lead by making it possible to demonstrate what could be done and the practical methods which could be applied.

The Commonwealth Government therefore decided to establish in each capital city a pre-school demonstration centre, known as the Lady Gowrie Child Centre, and in order to achieve the best results in association with those who have had experience in this field it has secured the co-operation of the Federal Organization of Kindergarten Unions which is operating under the title of "The Australian Association for Pre-school Child Development". A suitable site was secured in each capital city and the necessary school structure was built. Formerly the administration of these centres was under the direction of the local Kindergarten Union and the employment of staff was made

with the approval of the Commonwealth Department of Health. Recently the local Lady Gowrie Child Centre Committees were given a greater degree of autonomy, so that while the technical supervision still rests with the Australian Association for Pre-school Child Development, the management of each centre, including staffing, is in the hands of the local Committee. This development is associated with a change in the method of financial control. An annual grant is made to each Committee towards the cost of the centre, the disbursement of these funds being at the discretion of the local Committee, subject to the general supervision of the Australian Association for Pre-school Child Development. This applies in so far as the educational side is concerned, and in this field advantage is being taken of the opportunity to try new methods and to make systematic records of observations with the object of securing reliable knowledge of the educational technique of this pre-school period.

Along with this educational practice there proceeds also the study of physiological requirements of the child and of the interaction between physical and mental health under varying conditions. The children available at these centres provide a considerable mass of human material for control and study, which is of great value in view of the importance of the study of growth and of nutrition of their age-period. Not only are routine measurements made of height, weight and other bodily data, but problems of nutrition are studied in detail. The medical work at each State centre is carried on on a uniform basis, according to a scheme formulated at, and directed from, the Australian Institute of Anatomy, Canberra, where parallel investigations on the laboratory side are being undertaken.

II. Organization for the Control of Cancer.—The persistent increase in cancer mortality has led to the development in Australia of a national organization directed towards the control of this disease. The Commonwealth Department of Health has actively participated in this movement. Since 1928 the Australian Cancer Conferences, convened by the Department, have provided an opportunity each year for those actively engaged in the campaign against the disease to meet for the discussion of problems and the determination of lines of action and further development. The tenth conference in this series met in New Zealand in February, 1939, and so marked an association which has been maintained between Australia and the Dominion since the inception of the conferences. No further conferences have been held since 1939 due to the intervention of the 1939-45 War.

A large amount of radium purchased in 1928 by the Commonwealth Government for use in treatment and research has been distributed on loan to treatment centres throughout Australia. Under the terms of this loan, treatment at well-equipped clinics is available to all requiring it, irrespective of ability to pay. This work is co-ordinated by the Department.

Close co-operation is maintained between research workers, physicists and biochemists and the medical men engaged in the clinical investigation and treatment of the disease, so that problems are mutually investigated and treatment is applied with the highest attainable degree of scientific accuracy.

Realizing the essential importance of accuracy in determining the quality of radiation used in the treatment of cancer and in measuring the dosage of this radiation actually delivered to the tumour, and the need for the investigation of physical problems in connexion with the utilization of X-rays and radium in the treatment of disease, the Commonwealth Department of Health in 1935 extended the work of the Commonwealth Radium Laboratory, established in 1929, to include the investigation of the physical problems of radiation therapy generally. This laboratory, known as the Commonwealth X-ray and Radium Laboratory, is situated by agreement with the University of Melbourne, within the University grounds, and is maintained, controlled, and staffed by the Commonwealth Department of Health. It is accommodated in a building specially designed for work with X-rays and radium, and is amply provided with all necessary equipment for research work, including a 500,000 volt high tension generator.

The laboratory co-operates closely with the local physical services which have been developed in the other capital cities of Australia to provide local facilities for the production of radon, for the calibration of X-ray therapy equipment, and for the measurement of radiation exposure of X-ray and radium workers.

The laboratory has continued to repair radium containers. It also undertakes investigations into physical problems arising in the use of X-ray and radium in treatment.

During the year 1948, a total of 72,528 millicuries of radon was prepared and issued from the laboratory, while 40,835 millicuries were issued by the associated centres in Sydney, Adelaide and Brisbane. The corresponding figures for 1947 were 58,848 and 39,252 millicuries respectively. The issue of radon from a few centres to serve hospitals all over the continent is a unique Australian development, and enables a very efficient use to be made of the radium available.

12. **Veterinary Hygiene and Plant Quarantine.**—In 1927 Directors were appointed to control divisions of the Commonwealth Department of Health which have been created to deal with veterinary hygiene and plant quarantine.

§ 4. Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and has three sections of disease control, as follows :—(i) Human quarantine which controls the movements of persons arriving from overseas until it is apparent that they are free of quarantinable disease; (ii) Animal quarantine which controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports, and (iii) Plant quarantine which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds.

In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States: in general, the administration of interstate movements of animals and plants is left in the hands of the States.

The Commonwealth controls stations in each State for the purposes of quarantine of humans, animals and plants.

3. **Notifiable Diseases.**—(i) *General.* (a) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for the observance of precautions against the spread and for the compulsory notification of infectious disease. When any such disease occurs, the local authority must at once be notified, and in some States notification must be made also to the Health Department. The duty of making this notification is generally imposed, first, on the head of the house to which the patient belongs, failing whom on the nearest relative present, and, on his default, on the person in charge of or in attendance on the patient, and, on his default, on the occupier of the building. Any medical practitioner visiting the patient is also bound to give notice.

As a rule the local authorities are required to report from time to time to the Central Board of Health in each State as to the health, cleanliness and general sanitary state of their several districts, and must report the appearance of certain diseases. Regulations are prescribed for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing, or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as small-pox and leprosy.

(b) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table, which has been compiled by the Commonwealth Department of Health, shows for each State and the Australian Capital Territory the diseases notifiable in 1947 and 1948 and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS
FOR THE YEARS ENDED 31st DECEMBER, 1947 AND 1948.

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust. Cap. Terr.	Aust.
YEAR 1947.									
Anchylostomiasis†	..	510	12	..	102	..	..	..	624
Anthrax	..	1	..	1	..	..	..	..	2
Beriberi	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	65	47	36	17	30	8	..	..	203
Cholera	..	..	..	..	..	..	..	..	..
Coastal Fever (a)	..	..	8	..	..	..	..	..	8
Dengue	..	..	..	..	..	..	17	..	17
Diphtheria	761	405	457	93	363	64	7	1	2,151
Dysentery (b)	..	26	29	16	61	1	129	..	262
Encephalitis Lethargica	2	5	2	..	1	..	..	..	10
Erysipelas	..	..	..	68	..	..	7	..	75
Filariasis	..	..	2	..	..	..	..	..	2
Helminthiasis	..	..	..	..	..	..	..	..	..
Hydatid	..	20	..	..	..	..	..	..	20
Influenza	..	..	..	9	..	..	4	..	13
Leprosy	..	..	8	..	38	..	18	..	64
Malaria(c)	..	1,608	789	..	295	66	35	..	2,793
Measles	..	..	..	724	..	..	3	7	734
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	83	126	19	55	2	1	..	2	288
Psittacosis	..	2	..	..	..	..	..	..	2
Puerperal Fever	85	3	129	36	6	3	1	..	263
Rubella	..	..	..	..	32	..	..	29	61
Scarlet Fever	1,540	1,851	474	428	143	118	..	7	4,561
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	..	9	33	..	3	..	..	..	45
Trachoma	..	..	..	..	..	..	..	..	..
Tuberculosis(d)	1,751	825	546	216	406	207	15	5	3,971
Typhoid Fever(e)	28	21	14	2	36	10	..	..	111
Typhus (Endemic)(f)	24	..	63	3	142	..	..	..	232
Undulant Fever	1	20	1	1	9	..	..	..	32
Weil's Disease(g)	..	..	8	..	..	..	..	..	8
Whooping Cough	..	..	..	17	..	..	..	5	22
Yellow Fever	..	..	..	..	..	..	..	..	..
YEAR 1948.									
Anchylostomiasis†	..	247	23	..	101	..	..	..	371
Anthrax	..	..	..	..	..	..	..	..	..
Beriberi	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	80	54	21	14	16	6	..	1	192
Cholera	..	..	..	..	..	..	..	..	..
Coastal Fever (a)	..	..	10	..	..	..	..	..	10
Dengue	..	..	..	..	..	..	7	..	7
Diphtheria	599	391	153	79	255	60	6	2	1,545
Dysentery (b)	..	14	41	3	51	1	121	16	247
Encephalitis Lethargica	..	2	1	1	4	..	..	..	8
Erysipelas	..	..	..	55	..	..	2	..	57
Filariasis	..	..	..	..	..	..	..	..	..
Helminthiasis	..	..	..	..	..	..	..	..	..
Hydatid	..	10	..	..	..	..	..	..	10
Influenza	..	..	..	7	..	..	144	..	151
Leprosy	2	..	9	..	49	..	12	..	72
Malaria(c)	..	84	74	..	118	..	19	..	295
Measles	..	..	..	9,441	..	..	1,096	65	10,602
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	91	56	37	89	311	7	1	1	593
Psittacosis	..	..	..	..	..	..	..	..	..
Puerperal Fever	72	3	52	46	5	6	1	..	185
Rubella	..	..	..	..	50	..	..	18	68
Scarlet Fever	1,352	1,810	370	254	268	67	11	6	4,138
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	..	7	28	..	8	..	..	..	43
Trachoma	..	..	..	..	..	..	..	..	..
Tuberculosis(d)	1,711	677	452	297	353	188	19	10	3,707
Typhoid Fever(e)	17	32	15	2	24	..	..	..	90
Typhus (Endemic)(f)	12	3	64	11	87	..	..	..	177
Undulant Fever	3	11	1	1	5	..	..	..	21
Weil's Disease(g)	..	..	19	..	..	..	..	..	19
Whooping Cough	..	..	..	1,135	..	..	..	22	1,157
Yellow Fever	..	..	..	..	..	..	..	..	..

* Not notifiable. † Victorian and Western Australian cases of Hookworm were ex-service personnel infected overseas. ‡ Hydatid became notifiable in Western Australia as from 15th October, 1948.

(a) Includes "Mossman" and "Sarina" fevers. (b) Includes Amoebic and Bacillary. (c) Malaria figures for all States except Queensland and the Northern Territory represent relapse cases amongst ex-servicemen infected overseas. Queensland figures are mainly ex-service cases. (d) Includes all forms except in New South Wales and Northern Territory where only pulmonary tuberculosis is notifiable. (e) Includes Enteric and Paratyphoid fevers. (f) Cases reported include scrub, murine and tick typhus. (g) Includes Leptospirosis, Weil's and Para-Weil's Diseases.

(ii) *Venereal Diseases.* (a) *General.* The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. Under these Acts notification has been made compulsory in every State except South Australia, where the Venereal Diseases Act has not yet been proclaimed. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person and the employment of an infected person in the manufacture or distribution of foodstuffs.

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued. Yearly subsidies have been paid to the States to assist in coping with the special conditions created by the large numbers of people in the Armed Forces during the Pacific war.

In 1927 a Division of Tuberculosis and Venereal Disease was established in the Commonwealth Department of Health, with a medical officer as Director. This Division ceased to exist in April, 1932.

(b) *Details by States.* A statement of the preventive provisions in each State, together with certain statistical data, appeared in earlier issues of the Official Year Book (see No. 22, pp. 503-4).

4. *Vaccination.*—(i) *Demand for Vaccination.* There is statutory provision for compulsory vaccination in all States except New South Wales. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth Serum Laboratories in Melbourne. There has been a considerable increase in the demand for vaccination, especially by people about to travel overseas by air, so that they may conform with the quarantine requirements of countries to which they are travelling.

(ii) *Details by States.* In earlier issues of the Official Year Book (see No. 22, pp. 504-5) information was given concerning the provisions regarding vaccination in each State.

§ 5. Inspection and Sale of Food and Drugs.

Public Health legislation in force in all States provides for the inspection of foods and drugs with the object of ensuring that all those goods which are sold shall be wholesome, clean and free from contamination or adulteration; and that all receptacles, places and vehicles used for their manufacture, storage or carriage shall be clean. For further particulars in this connexion, and with respect also to the sale and custody of poisons, reference should be made to § 1 State Public Health Legislation and Administration, pp. 295-9.

§ 6. Supervision of Dairies, Milk Supply, Etc.

1. *General.*—In earlier issues (see No. 22, p. 498), reference is made to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally.

2. *Number of Dairy Premises Registered.*—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cows in milk thereon. In some States registration is compulsory within certain proclaimed areas only.

DAIRY PREMISES REGISTERED, AND COWS IN MILK THEREON, 1948.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.
Premises registered ..	17,513	25,783	22,500	12,471	482	(b) 7,297
Cows in milk thereon ..	592,320	669,976	647,100	129,137	23,961	(d)

(a) Dairy farms registered with the Milk Board for milk for Metropolitan Area and Country towns.
 (b) March, 1948. (c) Estimated. (d) Not available.

§ 7. Medical Inspection of School Children.

1. **General.**—Medical inspection of school children is carried out in all the States and the Australian Capital Territory. Medical staffs have been organized, and in some States travelling clinics have been established to deal with dental and ocular defects.

2. **New South Wales.**—A complete system of medical inspection of school children is carried out by the School Medical Service which passed from the control of the Minister for Education to that of the Minister for Health as from 1st July, 1946. Medical inspection was continued as formerly, viz., in the metropolitan area, full medical examination of all children in first and fifth classes, and review of children in other classes who have been found defective in previous years, and, in country districts, the full medical examination of every child two or three times during the usual period of school attendance (6–15 years). Parents are notified of the defects found, and urged to have them treated. In the metropolitan area these notices are reinforced by “follow-up” work of school nurses, who also arrange hospital and clinic treatment in many cases.

During 1948 resignations and new appointments resulted by the end of the year in a staff of 21 medical officers (including the Director, School Medicine Service, the 3 psychiatrists of the Child Guidance Clinics and the Area School Medical Officer, Wagga), 4 psychologists, 13 school nurses, 4 social workers and a speech therapist. The School Dental Service was incorporated as a part of the newly created division of dental services.

Special attention is paid to the supervision of the health of high school pupils, both girls and boys, and medical inspection is carried out annually in high schools in the metropolitan area, as well as certain country schools.

Every student, before entering a Teachers' College, is medically examined, and any defects found must be remedied before final acceptance. Health supervision is maintained at these Colleges by women medical officers, who give courses of lectures on hygiene and physiology.

The Child Guidance Clinics examine free of charge children referred by school medical officers, teachers, officers of the Child Welfare Department and various outside bodies. Boys coming before the Children's Court were examined at the Clinic at the Metropolitan Boys' Shelter attached to the Court and at Yasmar Hostel for Boys.

Similar examinations are made in the case of girl delinquents.

The medical examination of certain children under the jurisdiction of the Child Welfare Department and the Widows' Pensions Branch is also carried out by medical officers of this service.

The following summary furnishes particulars of children medically examined in schools in 1948:—

Number fully examined (routine inspection)	..	..	84,297
Number reviewed	..	..	24,946
Of those fully examined—percentage notified for defects, medical and/or dental..	..	..	39.10 per cent.

These figures do not include record of the medical examination and health supervision of children (1) in residence at the Glenfield Special School for backward children, and (2) attending the Department's Nursery Schools.

The School Medical Service carries out regular and/or periodical investigations into problems affecting the health of children, and special investigations into outbreaks of infectious diseases occurring in schools. The sanitary condition of school buildings is also inspected. One medical officer attached to this service was included on the panel of lecturers to parents' groups on sex education of children.

The foregoing statement does not include record of the numerous medical examinations of teachers, and other Departmental work of a medical nature, done by the School Medical Service.

The cost of this service, excluding administration charges, for the year ended 30th June, 1948, was £44,160.

3. **Victoria.**—Medical inspection of school children was established in 1909, one of the objectives of the system being to have each child medically examined once every three years in its school life.

At the medical inspection every child is first weighed and measured, tested for vision and hearing, then undressed to the waist and medically examined as for life assurance, but with a fuller investigation of many hygienic factors, which at that age greatly influence the health and growth of the child. Opportunity is also taken to teach the child healthy habits and how to correct faults, and get its co-operation for the remedying of defects found. School nurses employed by the Department are devoted to "follow-up" work, i.e., visiting the homes and obtaining treatment for children found defective by the school medical officers. Owing to the smallness of the staff their work is confined to the metropolitan area. The school nurse provides the liaison between the child, parent, teacher and appropriate medical or hospital services. Special attention is given to mentally and physically handicapped children. Retardants attending "special" schools and "opportunity" grades are examined annually. Those with defective eyesight ineligible for admission to the Blind Institute attend a "partially sighted" class and are kept under constant supervision. Others with minor postural defects attend a "remedial" gymnasium where special exercises are given under medical attention.

Triennial visits to State Schools within ten miles of Melbourne are fairly well maintained, but it has not been possible to visit more than a few of the registered and institutional schools. It has not been practicable to extend school medical services to country and rural districts. A limited number of metropolitan (industrial areas) and rural schools are covered by the School Dental Service. Owing to staff shortages, it has not been possible to maintain the desired policy of providing dental treatment at regular yearly intervals, with initial treatment at a maximum age of eight years. Children from metropolitan schools attend the School Dental Centre, South Melbourne, and are transported to and from the centre by motor bus hired by the department. It has been the aim to staff and maintain two dental vans on regular country itineraries and to give preference to children resident in institutions situated in the metropolitan and urban areas.

During the year ended 30th June, 1948, 17,526 children and 2,457 teachers were medically examined, and 13,282 children received dental treatment involving 17,694 visits with 25,662 extractions, 15,704 fillings and 6,431 other treatments.

The cost of the School Medical and Dental Services for 1947-48 was £22,327.

4. **Queensland.**—The School Health Services Branch, under the direction of the Chief Medical Officer, consists of three sections known as the Medical, Dental and Nursing Sections.

Medical inspection of schools and school children is carried out by one full-time and one part-time officer under the general direction of the Chief Medical Officer, School Health Services. These officers, as far as possible, examine children for cardiac and pulmonary conditions, and in addition make a thorough examination of all children referred to them by the school nurses.

The nurses now number 20. Each nurse is assigned a group of schools and is instructed to make a list at each school of those children who should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During 1947-48, school nurses examined 74,206 children. In the metropolitan area the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment.

The Department now has in its employ a staff of 19 dentists, and one part-time dental inspector. These officers are each assigned a district, which is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental Inspector, considers advisable. During 1947-48, 29,520 children were examined; 20,601 extractions were performed; and there were 67,875 fillings and 24,747 other treatments.

At the Wilson Ophthalmic School Hostel children suffering from trachoma are treated and educated. They are admitted from time to time on the recommendation of the part-time Ophthalmic Officer. Beneficial results have already been obtained. The Institution is situated at Eildon Hill, Windsor, and is fully equipped to treat all types of eye cases.

The work of Hookworm Control (the dealing with ankylostomiasis duodenale and necator Americanus infestation) throughout the State is under the control of the Director-General of Medical Services and his deputy. This activity has resulted in a marked reduction of the incidence of this dangerous menace on the northern coastal belt. Five sisters of the School Health Services are seconded for hookworm duty. The personnel consists of a microscopist, a health inspector and two trained sisters.

In order to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, three Rail Dental Clinics equipped on the most modern lines have been constructed. Another one is in course of construction and will shortly be in commission. A motor car is carried on a railway wagon attached to each clinic for use at each stopping place to visit the surrounding villages served by the rail centre.

This service cost £51,945 in 1947-48.

5. *South Australia*.—The system of medical inspection in force requires the examination of all children attending both primary and secondary schools. As a rule they are examined three times during their primary course in Grades I., IV. and VII., and twice during their secondary course in the 2nd and 4th years. Country schools are not visited annually because of staff shortage, but approximately every three or four years. On these visits all the children are examined. Reports are furnished to the parents of any remediable defects found during these examinations. The medical inspectors meet the parents after the examination of the children and give an address on the prevention and treatment of the conditions which were found during the inspection. After these lectures the parents are given an opportunity to ask questions regarding their children. When there is an epidemic or a threatened epidemic in a district, similar lectures are given and special visits paid to all the schools in that locality. All students are examined before they enter the Teachers' College and before they begin teaching. Medical and physiological tests are conducted four times during the course (two years) on all candidates taking the Diploma of Physical Education. Courses of lectures in Hygiene and in First Aid are given to all College students.

The medical staff consists of a principal medical officer, 3 full-time and 1 part-time medical inspectors and 5 trained nurses. Two dentists, 2 dental assistants and a speech therapist are attached to the Medical Branch. The speech therapist examines children with defective speech, ascertains the nature of the defect and teaches the child how to overcome it.

During 1948, 21,236 children were examined by medical inspectors; of these, 525 required notices for defective vision, 168 for defective hearing, and 936 for tonsils and adenoids.

The following table shows the percentages of primary school children who were wearing spectacles in 1947 and 1948 :—

Year.	Grade 1.	Grade 2.	Grade 3.	Grade 4.	Grade 5.	Grade 6.	Grade 7.
Boys.							
1947 ..	1.29	1.66	2.76	3.07	4.54	4.61	2.42
1948 ..	1.50	2.20	1.70	3.60	4.10	4.20	4.50
GIRLS.							
1947 ..	1.44	2.36	3.30	3.29	5.16	5.34	7.32
1948 ..	1.80	1.80	2.90	3.60	6.50	6.00	4.80

The Psychology Branch consists of a psychologist, assistant psychologist, vocational guidance officer, aptitude testing officer, employment officer, social worker and advisory teacher of opportunity classes. The work of the Branch may be divided into three sections—clinical, educational and vocational.

Clinical. The clinical work involves examining difficult children of many types, including such problems as backwardness, retardation, behaviour, truancy, delinquency, etc. In addition the parents of all children examined are always interviewed and their co-operation is sought.

Educational. In addition to supervising 36 opportunity and special classes for children backward in school work, the Branch advises on questions of placement and types of education for ordinary children in schools.

Vocational. The vocational guidance officer tests and advises all children about to leave school.

The Branch also undertakes lectures to students of the Teachers' College as well as to other interested organizations such as mothers' clubs.

The cost of these services in 1947-48 was £10,760.

6. *Western Australia.*—Under the Public Health Act 1911-1935 the medical officers appointed by the local authorities became medical officers of schools and of school children. The principle aimed at is—

(a) in the metropolitan area, that each child shall be examined three times during its school life—

- (i) when it enters school between 5 and 6 years,
- (ii) in its eighth year, and
- (iii) between the ages of 12 and 13 years ;

(b) in the country, that the child is examined twice during its school life, or more often if it is possible to arrange such medical examinations.

In the Health Department there are 2 full-time and 1 part-time medical officers for schools and 4 school nurses are employed. One of the medical officers is employed full-time in the country, and one full-time officer and one half-time officer are employed in the metropolitan area. One school nurse is employed in the country in special work connected with eye epidemics, etc. The other three nurses are employed in the metropolitan area. During 1948, 23,237 children were examined (metropolitan, 13,272, and country, 9,965 of whom 11,670 were boys and 11,567 girls). There were 285 schools visited, comprising—metropolitan, 75 State schools and 32 convents, and country, 149 State schools and 29 convents. During 1948 the 4 full-time dental officers employed visited 16 metropolitan and 45 country schools and gave attention to 2,957 children, of whom 1,792 had their parents' consent.

The cost of this service for 1947-48 was £8,737.

7. **Tasmania.**—During the year 1947-48 the School Medical Service occupied the full-time service of three medical officers and the part-time service of 18 government medical officers. Nine school nurses were engaged full-time on this work in association with the doctors and two nurses were engaged part-time.

Two dental clinics, one each in Hobart and Launceston, attended to the needs of children in those centres, and one mobile dental clinic was in operation in the north-western part of the State.

The number of children examined during 1948 by medical inspectors was 15,903, of whom 8,447 had defects. First visits to dentists numbered 6,774 and repeat visits 5,941.

The cost of medical and dental services for the year ended June, 1948, was £11,748.

8. **Australian Capital Territory.**—By arrangement, education facilities are provided by the Education Department of New South Wales. The Commonwealth Department of Health, however, took over from the State in 1930 the medical inspection of school children and carried out examinations of entrants and those leaving during 1930.

Subsequent to 1931, examinations of entrants and those leaving the primary schools have taken place. During 1937 this examination was supplemented by examinations of all pupils of all rural schools (including Duntroon and Molonglo). No examinations were made in 1942. Since 1943 all primary pupils of Government schools in the Territory have been medically examined annually. During 1948 a total of 1,392 children were examined, comprising 729 boys and 663 girls. Dental defects numbered 611 (43.9 per cent.); 82 (6 per cent.) children were notified to seek treatment for tonsils and adenoids; 25 cases (1.9 per cent.) were reported for defective vision. Defective hearing represented 28 notifications or 2 per cent. Chest deformities totalled 92 or 6.6 per cent., whilst 71 children (5.1 per cent.) were 10 per cent. or more under weight for their height and age.

§ 8. Supervision and Care of Infant Life.

1. **General.**—The number of infantile deaths and the rate of infantile mortality for the last five years are given in the following table, which shows that during the period 1944 to 1948 no less than 24,696 children died in Australia (excluding Territories, before reaching their first birthday. Further information regarding infantile mortality will be found in Chapter XIV. "Vital Statistics":—

INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1944.	1945.	1946.	1947.	1948.	1944.	1945.	1946.	1947.	1948.
NUMBER OF INFANTILE DEATHS.										
New South Wales	749	813	786	856	810	1,080	1,076	1,246	1,213	1,227
Victoria ..	705	637	730	725	605	553	518	538	520	498
Queensland ..	258	270	251	353	293	510	525	540	521	486
South Australia ..	211	224	256	192	256	176	170	172	204	216
Western Australia ..	173	146	160	181	150	181	169	216	217	181
Tasmania ..	57	28	58	66	46	142	131	149	129	147
Australia(a) ..	2,153	2,118	2,241	2,373	2,160	2,642	2,589	2,861	2,804	2,755
RATE OF INFANTILE MORTALITY.(b)										
New South Wales	26.45	27.56	24.74	26.82	26.06	34.51	33.46	35.12	32.36	33.00
Victoria ..	31.00	26.87	27.07	26.82	23.77	33.29	29.61	27.27	25.57	24.12
Queensland ..	30.18	28.18	25.65	34.59	29.94	31.93	30.65	31.33	28.70	28.47
South Australia ..	28.53	28.11	27.89	20.73	28.79	29.76	28.03	25.93	28.91	30.96
Western Australia ..	29.27	25.16	25.01	26.99	23.59	36.49	34.72	37.84	35.18	28.78
Tasmania ..	39.31	17.85	29.59	31.52	22.32	37.87	31.07	31.49	25.56	29.89
Australia(a) ..	28.95	27.11	26.04	27.21	26.06	33.65	31.60	31.90	29.75	29.60

(a) Excludes Territories.

(b) Number of deaths under one year per 1,000 births registered.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal as well as after-care in the case of mothers and infants. Government and private organizations, therefore, provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health centres, baby clinics crèches, visits by qualified midwifery nurses, and special attention to the milk supply, etc.

2. **Government Activities.**—In all the States acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (*See also* in this connexion Chapter IX. "Welfare Services".) Under the provisions of the Maternity Allowances Part V. of the Social Services Consolidation Act 1947-1949 from 1st July, 1947 a sum of £15 is payable to the mother in respect of each confinement at which a living or viable child is born. Where there are one or two other children under 16 the amount payable is £16, and where there are three or more other children under 16 the amount payable is £17 10s. Where more than one child is born at a birth the amount of the allowance is increased by £5 in respect of each additional child born at that birth. Detailed particulars regarding Maternity Allowances are given in Chapter IX. "Welfare Services."

3. **Nursing Activities.**—(i) *General.* In several of the States the Government maintains institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Official Year Book (*see* No. 22, pp. 515-6) information may be found concerning the activities of institutions in each State.

(iii) *Summary.* The following table gives particulars of the activities of Baby Health Centres and Bush Nursing Associations :—

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1948.

Heading.	N.S.W.	Victoria. (a)	Qld. (a)	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Baby Health Centres—								
Metropolitan .. No.	74	114	43	63	16	12	..	322
Urban-Provincial and Rural .. No.	196 (b)	257	144	134	22 (c)	53	9	815
Total .. No.	270	371	187	197	38	65	9	1,137
Attendances at Centres								
No.	1,066,489	989,490	396,380	254,311	165,689	113,824	15,225	3,001,408
Visits paid by Nurses								
No.	10,335	87,446	22,875	33,283	17,507	35,977	2,220	209,643
Bush Nursing Associations								
—Number of Centres ..	26	77	10	31	5	24	..	173

(a) Year ended 30th June, 1948.

(b) Includes five mobile units.

(c) Includes four mobile

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the figures for the years 1939 to 1947 :—1939, 1,869,770; 1940, 2,035,299; 1941, 2,128,961; 1942, 2,240,294; 1943, 2,327,279; 1944, 2,677,030; 1945, 2,927,764; 1946, 2,816,586; and 1947, 3,048,498.

§ 9. Hospital Benefits Act.

Under the Hospital Benefits Act 1945-1948 the Commonwealth has entered into agreements with the States to pay to the States hospital benefits at an agreed rate for each bed occupied by a qualified person in a public ward in a public hospital, provided that the States abolish the means test for admission into public wards and cease charging fees to qualified persons admitted thereto. The benefit rate for public wards, which was

six shillings per day until 30th June, 1948, was increased to eight shillings per day from 1st July, 1948. For dates of operation and payments made in the several States *see* page 318.

The agreements provide for the Commonwealth to pay benefits towards the cost of treatment of qualified persons occupying beds in non-public wards in public hospitals, and for the State Governments to reduce the hospital fees by the equivalent of the benefit rate, thus relieving qualified persons of fees to this extent. The benefit rate for non-public wards which was six shillings per day until 31st October, 1948, was increased to eight shillings per day from 1st November, 1948.

Private hospitals are entitled to claim benefits for beds occupied by qualified patients. These hospitals must be approved by a joint committee of Commonwealth and State Health authorities before payment of benefit is made. The hospitals are required to reduce each qualified patient's account by the amount of the benefit payable by the Commonwealth. The benefit rate for private hospitals which was six shillings per day until 31st October, 1948, was increased to eight shillings per day from 1st November, 1948.

Hospital benefits are payable also to or in respect of any person who whilst temporarily absent from Australia has been a qualified patient in a hospital in any country outside Australia. The benefit rate for persons temporarily absent from Australia which was six shillings (Australian currency) per day until 31st October, 1948, was increased to eight shillings (Australian currency) per day from 1st November, 1948. Arrangements have been made for these benefits to be paid in several countries overseas where Commonwealth Officers are established. Any claims not dealt with overseas received attention in Australia.

The Commonwealth and States have agreed to form a National Hospital Council of Commonwealth and State representatives, the functions of which will be to advise the Commonwealth and State Governments on any hospital matters referred to it by the Commonwealth or State Governments.

§ 10. Mental Institution Benefits Act.

The Mental Institution Benefits Act was assented to on 17th December, 1948. It authorizes the execution, on behalf of the Commonwealth, of agreements with all or any of the States, relating to the provision of mental institution benefits.

These agreements will provide for the Commonwealth to pay to the States in respect of qualified persons in mental institutions benefits at an agreed rate per patient-day and for the States to ensure that no means test is imposed on and that no fees are charged to or in respect of qualified persons.

§ 11. Tuberculosis Act.

With the exception of two sections, this Act came into operation when it received the Royal Assent on 25th November, 1948.

Sections 3 and 9 of this Act do not come into operation till a day to be fixed by proclamation. Section 3 refers to the repeal of the Tuberculosis Acts of 1945 and 1946 and Section 9 concerns allowances payable to sufferers from tuberculosis and their dependants.

Section 5 provides for an arrangement to be entered into between the Commonwealth and a State whereby the Commonwealth undertakes to provide—(1) Capital expenditure by the State on or after the 1st July, 1948, in the provision by the State of land and buildings for use in the diagnosis, treatment and control of tuberculosis, and in the erection and improvement of buildings and the provision of furnishings, equipment and plant for such use; and (2) the net maintenance expenditure by the State in any financial year after the year which ended on the 30th June, 1948, in relation to the diagnosis, treatment and control of tuberculosis, to an extent not exceeding the amount by which that expenditure is in excess of the net maintenance expenditure in relation to the diagnosis, treatment and control of tuberculosis incurred by the State during that last-mentioned year.

Any such expenditure shall be subject to the approval of the Minister before that expenditure is re-imbursed to the State by the Commonwealth.

Any arrangement entered into under this section shall provide—(a) that any assets acquired by the State, the cost or part of the cost of which has been re-imbursed to the State under the arrangement, shall not, without the approval of the Minister, be used otherwise than for the diagnosis, treatment and control of tuberculosis; and (b) for the indemnification of the Commonwealth—(i) against payment by way of compensation for property, the cost of which is being re-imbursed to the State by the Commonwealth under the arrangement in the event of the acquisition of that property by the Commonwealth; and (ii) where the cost of the property was re-imbursed in part to the State by the Commonwealth under the arrangement—against payment by way of compensation proportionate to the cost so re-imbursed to the State in the event of the acquisition of the property by the Commonwealth.

In Section 6 the powers of the Director-General are defined. Subject to the direction of the Minister he can establish or take over and conduct hospitals, sanatoria, laboratories, diagnostic centres, after-care and other units and clinics for the diagnosis, treatment and control of tuberculosis. He can arrange for the provision of scholarships for post-graduate study and can assist and provide for research.

The functions of any Advisory Council are described in Section 8. This Council, under the chairmanship of the Director-General, will advise the Minister on such matters as the measures to be taken for the prevention, diagnosis, treatment and control of tuberculosis; on standards of equipment, training of personnel, hospitals and sanatoria and the after-care of sufferers.

Realizing that it is essential to provide economic security, adequate nutrition and good living conditions for sufferers from tuberculosis and their dependants, the Government provides special allowances. The purposes of these allowances are—(a) to encourage sufferers to refrain from working and undergo treatment; (b) to minimize the spread of tuberculosis; (c) to promote treatment, after-care and rehabilitation; and (d) to provide an adequate level of nutrition and living conditions for the dependants.

All expenditure under this Act other than—(a) payments for the re-imbursement of a State in respect of expenditure of a capital nature; (b) payments for the re-imbursement of a State in respect of administrative expenses in the control of tuberculosis; and (c) payments under Section 8 dealing with the Advisory Council shall be made out of the Trust Account established under the National Welfare Fund Act 1943-1945 and known as the National Welfare Fund.

All expenditure by the Commonwealth referred to in paragraphs (a), (b) and (c) above shall be made out of moneys from time to time appropriated by the Parliament for the purpose.

§ 12. Pharmaceutical Benefits Act.

A Pharmaceutical Benefits Act passed all stages of the Commonwealth Parliament in March, 1944 and was amended in September, 1945. This Act was the subject of a High Court action, as a result of which the Government sought by means of a referendum of the people the constitutional power necessary to implement the Act. For further information on legal and constitutional action in this matter, *see* Chapter III.—General Government, pages 83 and 84. This power having been granted, a further Pharmaceutical Benefits Act, which repealed the Acts of 1944 and 1945, was assented to on 12th June, 1947. This Act embodies a scheme for providing pharmaceutical benefits to all persons ordinarily resident in Australia. The benefits to be provided are contained in a Commonwealth Pharmaceutical Formulary, which is subject to periodic revision by a Formulary Committee comprised of members of the medical and pharmaceutical professions. Benefits are supplied without cost to the person receiving the benefit, payment being made by the Commonwealth to authorized suppliers from the National Welfare Fund. Special arrangements exist for supplying benefits or their equivalent to persons residing in isolated areas. These pharmaceutical benefits were first made available to the public on 1st June, 1948.

B. INSTITUTIONS.

§ 1. General.

In Australia institutions related to public health may be classified in three groups: (a) State; (b) public; and (c) private. To the first group belong those institutions wholly provided for by the State, such as the principal mental hospitals in the various States and the Government and leased hospitals in Western Australia. To the second group belong public institutions of two kinds, namely:—(i) those partially subsidized by the State or by State endowments for maintenance, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the first of these two kinds belong such institutions as the principal metropolitan hospitals; in the second are included institutions established and endowed by individuals for the benefit of the needy generally. All institutions of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in regard to (c) general tabulation is, for obvious reasons, impossible. Owing to differences in the dates of collection and tabulation it is impossible to bring statistics of some charitable institutions to a common year.

§ 2. Public Hospitals (other than Mental Hospitals).

1. **General.**—All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, tubercular patients, women, children, incurables, etc.

The particulars given herein refer to public hospitals at the latest available date and include all institutions affording hospital relief, whether general or special, with the exception of mental hospitals, repatriation hospitals and private hospitals conducted commercially. The particulars for New South Wales in the following tables relate to hospitals operating under the control of the Hospitals Commission.

2. **Principal Hospitals in each State.**—In earlier issues of the Official Year Book (*see* No. 22, pp. 481–2) particulars respecting staff, accommodation, etc., of each of the principal hospitals were given.

3. Number, Staff and Accommodation, 1947-48.—Details regarding the number of hospitals, staffs and accommodation for the year 1947-48 are given in the following table :—

PUBLIC HOSPITALS : NUMBER, STAFF AND ACCOMMODATION, 1947-48.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Number of Hospitals ..	238	85	121	59	85	23	1	612
Medical Staff—								
Honorary	2,234	1,061	119	301	169	105	14	4,003
Salaried	479	314	341	104	40	53	2	1,333
Total	2,713	1,375	460	405	209	158	16	5,336
Nursing Staff	7,869	4,593	3,879	1,579	1,497	666	70	20,153
Accommodation—								
Number of beds and cots	17,580	9,498	7,494	3,288	3,475	1,954	184	43,473

The figures for accommodation shown in the table above include particulars, where available, of a considerable number of beds and cots for certain classes of cases in out-door or verandah sleeping places.

4. In-Patients Treated.—The following table furnishes particulars of in-patients treated. (Newborn are excluded.)

PUBLIC HOSPITALS : IN-PATIENTS TREATED, 1947-48.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Inmates at beginning of year—								
Males	5,341	2,443	2,673	978	1,087	500	44	13,066
Females	6,624	2,856	2,967	1,192	1,031	707	60	15,437
Total	11,965	5,299	5,640	2,170	2,118	1,207	104	28,503
Admissions and Re-admissions during year—								
Males	127,874	41,142	70,806	21,179	27,715	12,038	1,641	302,395
Females	177,636	55,050	80,233	27,121	28,397	18,334	2,268	389,058
Total	305,510	96,201	151,039	48,310	56,112	30,372	3,909	691,453
Total in-patients treated—								
Males	133,215	43,585	73,479	22,157	28,802	12,538	1,685	315,461
Females	184,260	57,915	83,200	28,323	29,428	19,041	2,328	404,495
Total	317,475	101,500	156,679	50,480	58,230	31,579	4,013	719,956
Discharges—								
Males	121,822	38,225	67,782	19,888	26,490	11,557	1,585	287,349
Females	172,712	53,048	78,236	26,093	27,656	17,904	2,230	377,879
Total	294,534	91,273	146,018	45,981	54,146	29,461	3,815	665,228
Deaths—								
Males	5,927	2,912	2,849	1,305	1,147	529	41	14,710
Females	4,331	2,044	1,800	978	664	407	22	10,336
Total	10,258	4,956	4,739	2,283	1,811	936	63	25,046
Inmates at end of year—								
Males	5,466	2,448	2,848	964	1,165	452	59	13,402
Females	7,217	2,823	3,074	1,252	1,108	730	76	16,280
Total	12,683	5,271	5,922	2,216	2,273	1,182	135	29,682
Average Daily Number Resident	12,206	5,118	5,574	2,192	2,148	1,200	116	28,554

In addition to those admitted to the institutions there are large numbers of out-patients. During 1947-48 there were 823,084 out-patients treated in New South Wales, 342,136 in Victoria, 387,269 in Queensland, 81,682 in South Australia, 88,317 (estimated) in Western Australia, 45,846 (estimated) in Tasmania and 4,429 in the Australian Capital Territory, making a total for Australia of 1,772,763.

5. **Revenue and Expenditure.**—Details of the revenue and expenditure for the year 1947-48 are shown in the next table. The revenue includes the Commonwealth Hospital Benefit Scheme which operated in Victoria, Queensland, Western Australia and Tasmania from 1st January, 1946, in South Australia from 1st February, 1946, and in New South Wales and the Australian Capital Territory from 1st July, 1946.

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1947-48.

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Revenue—								
Government Aid ..	4,804,972	1,984,072	2,307,923	690,821	956,812	398,455	51,597	11,194,652
Commonwealth Hospital Benefits ..	(a) 586,867	529,437	510,708	189,087	232,392	92,719	12,355	2,153,565
Municipal Aid ..	(b)	82,572	..	28,811	664	..	..	112,047
Public Subscriptions, Legacies, etc. ..	176,809	704,437	5,564	81,153	39,819	5,962	9	1,013,753
Fees ..	1,133,863	673,290	220,326	141,867	102,365	72,921	7,475	2,352,107
Other ..	173,768	10,576	67,035	106,199	19,220	19,558	61	566,417
Total 1947-48 ..	6,876,279	4,144,384	3,111,556	1,237,938	1,351,272	589,615	71,497	17,392,541
1946-47 ..	5,070,759	3,734,442	2,455,963	1,066,731	1,072,371	486,698	56,988	13,943,952
Expenditure—								
Salaries and Wages	4,278,501	1,911,867	1,639,956	640,050	539,537	352,958	33,775	9,426,644
Upkeep and Repair of Buildings and Grounds ..	236,568	114,052	73,596	71,732	16,927	12,077	2,305	527,257
All Other Ordinary Capital (c) ..	2,413,290	1,561,326	1,375,742	499,876	410,218	224,665	23,171	6,508,288
	(d)	558,686	..	44,149	378,446	..	12,076	(e) 993,357
Total 1947-48 ..	6,928,359	4,175,931	3,089,294	1,255,807	1,345,128	589,700	71,327	17,455,546
1946-47 ..	5,264,499	3,504,538	2,468,308	1,064,182	1,057,234	483,830	56,922	13,899,513

(a) Portion only of amount allocated to State Hospitals.

(b) Included in "Other".

(c) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings.

(d) Not available.

(e) Incomplete.

6. **Summary, 1938-39 and 1944-45 to 1947-48.**—A summary for the years 1938-39 and 1944-45 to 1947-48 of the number of hospitals in Australia, medical and nursing staffs, beds, admissions, in-patients treated, out-patients, deaths, average daily number resident, revenue, and expenditure is given in the following table. The figures relate to both general and special hospitals.

PUBLIC HOSPITALS: AUSTRALIA.

Particulars.		1938-39.	1944-45.	1945-46.	1946-47.	1947-48.
Institutions ..	No.	563	571	586	604	612
Medical Staff ..	"	4,059	4,183	4,618	5,199	5,336
Nursing Staff ..	"	13,582	16,793	17,225	18,411	20,153
Beds and cots ..	"	35,711	39,811	42,286	42,601	43,473
Admissions during year ..	"	527,055	624,651	640,446	674,957	691,453
Total indoor cases treated						
	No.	552,051	652,144	667,927	703,488	719,956
Out-patients (cases) (a) ..	"	1,272,147	1,355,069	1,426,821	1,631,918	1,772,763
Deaths ..	"	23,372	24,245	25,043	24,536	25,046
Average daily resident ..	"	25,608	28,480	28,530	28,216	28,554
Revenue ..	£	7,106,642	10,443,726	11,865,140	13,943,952	17,392,541
Expenditure ..	£	6,351,055	9,497,344	11,371,348	13,899,513	17,455,546

(a) Estimates for South Australia, Western Australia and Tasmania.

§ 3. Leper Hospitals.

Isolation hospitals for the care and treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane, and Fantome Island, North Queensland); Western Australia (Derby); and the Northern Territory (Channel Island, near Darwin). At the end of 1948 there were 18 cases in residence at Little Bay, 55 at Peel Island, 77 at Fantome Island, 248 at Derby, 85 at Channel Island, and one isolated case at Wooroloo, Western Australia. Of the 484 cases, 373 were full-blood aborigines, 40 half-caste aborigines, 5 Asiatics and 66 Europeans.

§ 4. Mental Hospitals.

1. **General.**—The methods of compiling statistics of insanity are fairly uniform throughout the States, but there is an element of uncertainty as to possible differences in diagnosis in the early stages of the disease. The figures for the States cannot be brought to a common year; consequently the following particulars relate to a combination of calendar and financial years. Licensed houses are included in all particulars excepting revenue and expenditure for New South Wales. The figures exclude those of reception houses and observation wards in gaols. In New South Wales the expenditure includes the cost of Broken Hill patients treated in South Australian hospitals.

2. **Hospitals, Staff, etc., 1947-48.**—Particulars regarding the number of institutions, the medical and nursing staffs, and accommodation are given in the following table for the year 1947-48 :—

MENTAL HOSPITALS : NUMBER, STAFF, ACCOMMODATION, 1947-48.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	13	9	5	2	4	1	34
Medical Staff—							
Males	34	40	10	7	5	2	98
Females	8	..	..	1	..	1	10
Total	42	40	10	8	5	3	108
Nursing Staff and Attendants—							
Males	912	558	489	187	162	88	2,396
Females	956	376	193	136	72	69	1,802
Total	1,868	934	682	323	234	157	4,198
Accommodation—							
Number of beds and cots	12,080	6,847	3,889	2,162	1,497	744	27,219

(a) The figures relate to years ended as follows :—New South Wales, Queensland, South Australia and Tasmania—30th June, 1948; Victoria and Western Australia—31st December, 1947.

3. **Patients, 1947-48.**—Information regarding patients treated, deaths, etc., for 1947-48 is given in the following table :—

MENTAL HOSPITALS : PATIENTS, DEATHS, ETC. 1947-48.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (b)—							
Males	6,605	3,673	2,488	1,216	983	417	15,382
Females	6,930	4,220	2,238	1,221	662	453	15,724
Total	13,535	7,893	4,726	2,437	1,645	870	31,106

(a) See footnote (a) to previous table.

(b) Excludes transfers to other institutions.

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1947-48 (a)—*continued.*

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of patients on books at beginning of year—							
Males	5,854	3,290	2,094	1,047	881	312	13,478
Females	5,980	3,747	1,839	1,060	590	351	13,567
Total	11,834	7,037	3,933	2,107	1,471	663	27,045
Admissions and re-admissions excluding absconders retaken and transfers from other institutions—							
Males	751	383	394	169	102	105	1,904
Females	950	473	399	161	72	102	2,157
Total	1,701	856	793	330	174	207	4,061
Discharges (including absconders not retaken)—							
Males	349	190	227	39	33	88	926
Females	472	202	233	44	17	75	1,043
Total	821	392	460	83	50	163	1,969
Deaths—							
Males	433	214	145	97	51	29	969
Females	445	235	113	92	39	30	954
Total	878	449	258	189	90	59	1,923
Number of patients on books at end of year—							
Males	5,823	3,269	2,116	1,080	899	300	134,87
Females	6,013	3,783	1,892	1,085	606	348	13,727
Total	11,836	7,052	4,008	2,165	1,505	648	27,214
Average daily number resident—							
Males	5,337	2,926	2,029	1,058	878	310	12,538
Females	5,314	3,328	1,782	1,053	572	349	12,398
Total	10,651	6,254	3,811	2,111	1,450	659	24,936
Number of patients on books at end of year per 1,000 of population—							
Males	3.85	3.21	3.67	3.30	3.44	2.25	3.52
Females	3.97	3.62	3.44	3.28	2.45	2.70	3.60
Total	3.91	3.42	3.55	3.29	2.96	2.47	3.56
Average number of patients resident in mental hospitals per 1,000 of mean population—							
Males	3.55	2.89	3.56	3.27	3.40	2.34	3.30
Females	3.53	3.20	3.28	3.20	2.34	2.69	3.27
Total	3.54	3.04	3.43	3.24	2.88	2.52	3.29

(a) See footnote (a) to previous table.

Persons who are well advanced towards recovery are allowed to leave the institutions and reside with their relatives or friends, but they are under supervision and their names are kept in the records.

4. Revenue and Expenditure, 1947-48.—The revenue of Government mental hospitals is small in comparison with their cost, and consists chiefly of patients' fees. The proportion of expenditure borne by the State amounts to about 86 per cent. In New South Wales the expenditure includes the cost of Broken Hill patients treated in South Australian hospitals.

MENTAL HOSPITALS : FINANCES, 1947-48.

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue (excluding Government Grants)—							
Fees of Patients	177,300	130,846	55,754	34,521	34,756	11,065	444,242
Other	25,539	13,148	3,577	17,739	3,772	184	63,959
Total	202,839	143,994	59,331	52,260	38,528	11,249	508,201
Expenditure—							
Salaries and Wages ..	836,020	440,968	314,510	150,487	136,530	77,395	1,955,910
Upkeep and Repair of Buildings, &c. ..	72,977	..	9,755	13,433	6,777	1,903	104,845
All Other(a)	590,828	495,231	188,316	113,499	81,448	45,599	1,514,921
Total	1,499,825	936,199	512,581	277,419	224,755	124,897	3,575,676
Expenditure per Average Daily Resident ..	£140/16/4	£149/13/11	£134/10/-	£131/8/4	£155/0/1	£189/10/6	£143/7/11

(a) Includes the following amounts for capital expenditure on Purchases of Land, Cost of New Buildings, and Additions to Buildings: New South Wales, £63,122; Victoria, £111,261; South Australia, £3,393; and Western Australia, £85.

5. Summary for Australia, 1938-39 and 1944-45 to 1947-48.—The following table gives a summary of mental hospitals in Australia during 1938-39 and for each of the years 1944-45 to 1947-48 :—

MENTAL HOSPITALS : SUMMARY, AUSTRALIA.

Particulars.	1938-39.	1944-45.	1945-46.	1946-47.	1947-48.
Institutions No.	35	32	33	33	34
Medical Staff "	92	89	95	99	108
Nursing Staff "	4,922	4,104	3,803	4,078	4,198
Beds "	25,654	26,177	26,520	26,984	27,219
Admissions "	3,757	3,674	3,919	3,925	4,061
Discharged as recovered, relieved, etc. "	1,800	1,703	1,792	2,150	1,969
Deaths "	1,632	1,834	1,976	1,888	1,923
Inmates at end of year "	26,509	26,978	27,158	27,045	27,214
Revenue (excluding Government Grants) £	262,817	427,278	428,951	457,131	508,201
Expenditure—Total £	1,903,817	2,409,317	2,579,399	2,893,208	3,575,676
" —Per Average Daily Resident..	£79/2/4	£97/10/4	£102/19/8	£116/6/11	£143/7/11

6. **Number of Mental Patients, 1938-39 and 1944-45 to 1947-48.**—The total number returned as under treatment shows slight fluctuations during the period but the proportion to total population shows a slight decline to 1947-48. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an early stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an actual increase in insanity.

MENTAL PATIENTS IN INSTITUTIONS.

State.	1938-39.	1944-45.	1945-46.	1946-47.	1947-48.
NUMBER.					
New South Wales	11,678	11,850	11,865	11,834	11,836
Victoria	7,326	7,242	7,262	7,037	7,052
Queensland	3,650	3,840	3,876	3,933	4,008
South Australia	1,747	1,925	2,024	2,107	2,165
Western Australia	1,477	1,465	1,475	1,471	1,505
Tasmania	631	656	656	663	648
Australia	26,509	26,978	27,158	27,045	27,214
PER 1,000 OF POPULATION.					
New South Wales	4.25	4.06	4.03	3.96	3.91
Victoria	3.92	3.62	3.60	3.45	3.42
Queensland	3.59	3.57	3.56	3.55	3.55
South Australia	2.93	3.07	3.19	3.26	3.29
Western Australia	3.16	3.02	3.01	2.96	2.96
Tasmania	2.66	2.64	2.60	2.58	2.47
Australia	3.81	3.66	3.65	3.59	3.56

The difference between States in the number of mental patients in institutions per 1,000 of population may be due to some extent to differences in classification.

7. **Causes of Insanity.**—The general information available respecting the causes of the insanity of persons admitted to institutions is too unsatisfactory to enable a classification of patients by cause of insanity to be given.

8. **Length of Residence in Hospital, 1947-48.**—(i) *New South Wales and Victoria.* Particulars are not available regarding the average length of residence in hospitals of persons who died or were discharged during the year.

(ii) *Queensland.* The average residence of those who died during 1947-48 was 7 years 360 days for males, and 6 years 104 days for females; of those discharged, 357 days for males, and 1 year 142 days for females.

(iii) *South Australia.* The average residence of those who died during 1947-48 was 5 years 4 months 12 days for males, and 5 years 3 months 29 days for females; of those discharged, 5 years 3 months 12 days for males, and 2 years 10 months 19 days for females.

(iv) *Western Australia.* The average residence of those who died in 1947 was 10 years 6 months 4 days for males, and 9 years 2 months 9 days for females; of those discharged, 2 years 6 months 4 days for males, and 4 years 4 months 23 days for females.

(v) *Tasmania.* The average residence of those who died during 1947-48 was 3 years 35 days for males, and 5 years 295 days for females; of those discharged, 1 year 55 days for males, and 1 year 355 days for females.