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CHAPTER XIII.

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 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), 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 greater part of 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 and Pure Food 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.**—The Ministry of Health Act 1943 made the Minister of Health responsible for all Acts administered up to that time by the Department of Public Health, the Hospitals and Charities Acts, the Mental Hygiene Acts, and all legislation and matters relating to the health and well-being of the people of the State.

The former Department of Public Health became the General Health Branch controlled by a Chief Health Officer. The latter also administers the Maternal and Child Hygiene Branch, and the Tuberculosis Branch. These three with the Mental Hygiene Branch make up the four branches of the Department of Health.

The Secretary of the Department of Health and a number of administrative officers assist the Minister with all matters relating to policy, legislation, etc.

The Mental Hygiene Authority Act 1950 provided for the establishment of an Authority of three members with a medical expert in mental illnesses at its head and established a pattern for the extension of the services of the Branch and for the

improvement of treatment and accommodation of mental patients throughout the State. The Authority is responsible for the administration of the Mental Hygiene Branch.

The constant fight against infectious disease is actively carried on in the General Health Branch by seven District Health Officers and their staffs, in collaboration with the local health authorities. Where any specific infection is unduly prevalent, immunization is concentrated and the success obtained over a period of years is illustrated in the comparison of the following figures in respect of diphtheria :—Year 1927—cases, 3,254 ; deaths, 93 : Year 1952—cases, 246 ; deaths, 10.

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

The Poliomyelitis Division, formed during the outbreak of the disease in 1949 and expanded since that time, supervises treatment and after-care of patients throughout the State. The Division is staffed by three medical officers, fifteen physiotherapists and two visiting nurses.

Determining the suitability of sewerage projects and ensuring the safety of public buildings are the responsibilities of the Engineering Division of the General Health Branch, and it acts in an advisory and supervisory capacity in municipal undertakings of this nature. In conjunction with the Hospitals and Charities Commission of Victoria, it examines plans and advises on all hospital construction throughout the State.

The Industrial Hygiene Division supervises the environmental conditions of the 300,000 persons employed in industry in Victoria and consists of three medical officers, three special scientific officers and a number of inspectors.

Under the direction of a medical director, the Tuberculosis Branch comprises State sanatoria, tuberculosis clinics, tuberculosis bureaux and the Mass X-ray Survey Division. The latter service has visited every large Victorian centre and many of the smaller townships, affording to the population throughout the State every facility in obtaining an X-ray. A relatively new project is the acquisition by the Government of suitable properties as hostels for the accommodation of ex-tuberculosis patients during their rehabilitation. In order to exercise better control over the spread of tuberculosis in this State, power has been given, by special legislation, to the Chief Health Officer to require any individual or any group of persons to undergo radiological examination of the chest. Should tubercular infection be suspected as a result of this examination, the Chief Health Officer may then require the patient to be further examined and, if necessary, treated until his condition is no longer dangerous to others.

As with the Tuberculosis Branch, a medical director supervises the activities of the Maternal and Child Hygiene Branch. This Branch embraces pre-natal hygiene, infant health, pre-school child hygiene and school medical and dental services. An extensive State-wide correspondence scheme for women during their pregnancy and early motherhood supplies these women with all the latest advice and information. The expansion of the School Dental Service, under the control of a dental director appointed to organize and develop the service, is proceeding steadily. By opening a new dental centre in the metropolitan area, putting into operation a number of new mobile dental surgeries and employing additional trained staff, the number of school children receiving regular dental treatment through the School Dental Services has been more than doubled. Further dental vans for country work are on order and more dentists will be employed as they can be absorbed into the service.

Legislation which comes within the purview of the Minister of Health includes the following :—Anti-Cancer Council Act, Births Notification Acts, Cancer Institute Act, Cemeteries Acts, Dietitians Registration Act, Part V. of the Goods Act, Hairdressers Registration Acts, Health Acts, Hospitals and Charities Acts, Infectious Diseases Hospital Acts, Masseurs Acts, Medical Acts, Mental Deficiency Act, Mental Hygiene Acts, Midwives Act, Nurses Acts, Opticians Registration Act, Poisons Acts and Venereal Diseases Act.

3. **Queensland.**—(i) *General.* The Health Acts 1937 to 1949 are administered by the Director-General of Health and Medical Services subject to the Minister for Health and Home Affairs. A Central Staff controls the following Divisions :—

(*a*) *Division of Public Health Supervision.* This Division is controlled by the Deputy Director-General of Health and Medical Services and comprises separate sections of environmental sanitation, food and drug control, enthetic (venereal) diseases, hookworm control and Hansen's disease control. Qualified whole-time officers are in charge of each section. Free treatment of venereal diseases is offered at the Department's male and female clinics in Brisbane, and at any public hospital. Two institutions (one at Peel Island in Moreton Bay for white patients and one at Fantome Island near Townsville for aboriginal patients) are maintained for the treatment of Hansen's disease. Modern therapy with sulphone drugs has caused a dramatic decline in numbers of patients at these institutions. Free immunization against diphtheria, whooping cough and tetanus is offered by most of the Local Authorities. A recent survey showed that 94 per cent. of school children in the Greater Brisbane area and 90 per cent. in the rest of the State had been immunized against diphtheria.

Wide powers for the control of environmental sanitation have been conferred on Local Authorities by the Health Acts and their work in this connexion is closely supervised by a staff of State health inspectors who visit all parts of the State. State-wide control of foods and drugs is carried out by the inspectors of this Division. High standards of purity are insisted on and particular care is taken to prevent excessive consumption of habit-forming narcotics. School children north of Ingham are regularly examined for evidence of hookworm infestation. Hookworm disease has markedly diminished in this high rainfall area during the last twenty years. Principal sufferers are now aboriginals.

(*b*) *Division of Tuberculosis.* The Director of Tuberculosis, assisted by medical officers and nurses, exercises control of patients with tuberculosis. A central chest clinic in Brisbane offers Mantoux tests, X-ray examinations, and innoculations of Mantoux negative reactors free of charge and this service is extensively used. A mobile X-ray unit is being established to tour country districts.

(*c*) *Division of Industrial Medicine.* This Division in charge of a Director exercises supervision over the health of workers in both primary and secondary industries, including control of leptospirosis (Weil's disease) and scrub typhus in the sugar-cane growing districts north of Ingham.

(*d*) *Division of Maternal and Child Welfare.* The Director of Maternal and Child Welfare, assisted by full-time and part-time health officers and a staff of qualified nurses, offers supervision and advice on the rearing of infants and pre-school children at baby health centres throughout the State. Outlying centres are visited by air or by special rail car. Homes for in-patient treatment of infants with feeding problems have been established at Brisbane, Toowoomba, Ipswich and Rockhampton.

(*e*) *Division of School Health Services.* This Division comprises the Chief Medical Officer, School Health Services, and a staff of medical officers, dentists and visiting school nurses. Every school child is examined regularly and defects are reported to parents. Free dental treatment is provided for school children by either dentists of the School Health Services or public dental clinics. Rail dental cars and portable equipment are used to provide the service for sparsely settled areas.

(*f*) *Division of Mental Hygiene.* The Director of Mental Hygiene is responsible for the care and treatment of mentally sick patients in the States' three mental hospitals, at Brisbane, Toowoomba and Ipswich. A new mental hospital is being erected at Charters Towers.

(*g*) *Division of Laboratory Services.* Two laboratories—the Laboratory of Microbiology and Pathology and the Government Chemical Laboratory—are maintained to ensure the purity of a wide range of foodstuffs and materials. The former also offers a service in clinical pathology to country hospitals and private medical practitioners.

(ii) *Hospitals.* All public hospitals operate under what is known as the district system, which provides for the constitution of Hospitals Districts and Hospitals Regions and a Hospitals Board for each district. The State is divided into 11 Hospitals Regions with a base hospital for each region which comprises a number of Hospitals Districts. The purpose of the regional scheme is to co-ordinate the public hospitals in the region with the base hospital. The administration of the hospitals services, including public dental services, in each Hospitals District is vested in the Hospitals Board which comprises not less than four members nor more than eight members appointed by the Governor-in-Council and one member elected by the component Local Authorities. There are 54 Hospitals Boards controlling 121 public hospitals.

The financial structure of the district system resolves itself into two parts, namely, capital expenditure and maintenance expenditure. Capital expenditure is provided by way of loan moneys. The State Government is responsible for the net annual cost of administration and maintenance of all hospitals controlled by Hospital Boards. All in-patient treatment in public wards and out-patient treatment at public hospitals is free of charge and no means test is applied in respect of such treatment, which includes X-ray, pathology and all other forms of treatment. The Commonwealth Government pays the State the hospital benefit of 8s. per day for each qualified in-patient and an additional benefit of 4s. per day for each pensioner in-patient who is enrolled in the Commonwealth Pensioner's Medical Service Scheme and who produces his or her entitlement card.

The Mater Misericordiae Hospital, Brisbane, and St. Vincent's Hospital, Toowoomba, operated by religious organizations, provide public as well as private accommodation. The State subsidizes these hospitals for public patients for whom free treatment is provided. There are 23 private hospitals in Brisbane and 40 in the country. These private hospitals are registered under the Health Acts. Two tuberculosis sanatoria are operating in the State, one at Westwood, via Rockhampton, and the other at Thursday Island. The latter is for natives. Another one is under construction in Brisbane.

4. **South Australia.**—The Department of Public Health embraces the activities of the Central Board of Health, the School Medical Services and the public health aspect of the control of tuberculosis, including the State X-ray Health Survey, under the control of the Director of Tuberculosis.

The Central Board of Health consists of five members, three of whom (including the chairman) are appointed by the Governor while one each is elected by metropolitan local boards and all other local boards. The Central Board of Health administers the Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouses Registration and Early Notification of Birth Acts. The Board is also concerned to some degree with Acts relating to local government, abattoirs and cremation. Other legislation administered by the Department of Public Health relates to venereal diseases and vaccination.

The Health Act of 1935–1952 constitutes every municipal council and every district council a local board of health for its municipality or district. There are 143 of these local boards under the general control and supervision of the Central Board. Under the Food and Drugs Act every local board is constituted the local authority for its respective district, except in the metropolitan area, for which the Metropolitan County Board is the local authority.

The medical staff of the Department includes the Director of Tuberculosis, a Senior Medical Officer and the Principal Medical Officer for Schools, six full-time medical officers, one temporary medical officer and six part-time medical officers. Five dentists, four dental assistants and six nurses are engaged in connexion with the School Medical Services. There are six full-time and fourteen part-time inspectors directly responsible to the Board. There is also a nurse inspector employed to advise and assist local boards in connexion with infectious diseases. Three nurses are engaged in the State X-ray Health Survey and one in B.C.G. vaccination. The inspectors appointed under the Health and Food and Drugs Acts periodically visit the local districts and see, generally, that the local boards are performing their duties.

5. **Western Australia.**—The legislation in this State is the Health Act 1911–1952. This was consolidated and reprinted in 1948 and amended by Acts Nos. 25 of 1950 and 11 and 25 of 1952. The Central Authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The State is covered by Local Authorities which are constituted as Municipalities or Road Boards.

It is provided that a Local Board of Health may be set up in lieu of a Road Board, but this method of control is no longer used. In any 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 gave compulsory power to control sufferers from tuberculosis and established a Tuberculosis Control Branch ; (*b*) Act No. 71 of 1948 provided that within areas declared for the purpose all still-born infants must be submitted for post-mortem examination and all stillbirths must be notified to the Commissioner by the attending medical practitioner ; and (*c*) Act No. 11 of 1952 gave wide powers to regulate the sale and use of pesticides.

All the usual provisions for public health control are embodied in the Health Act. They include 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, children's and nursing aides.

6. **Tasmania.**—The Department of Public Health is under the jurisdiction of the Minister for Health, and the administration of the various services is controlled by the permanent head of the Department, the Director-General of Medical Services, who is also responsible for the administration of the Hospital and Medical section. Associated with the permanent head are the Director of Public Health, the Director of Tuberculosis, and the Director of Mental Hygiene.

The Hospital and Medical Services section is responsible for administration of the laws relating to hospitals and nurses' registration, and the following services : Government Medical Service, Bush Nursing Service, Institutions for the Aged and Infirm at St. John's Park and Cosgrove Park.

Public Health functions comprise administration of laws relating to public health, food and drugs, places of public entertainment and cremation, and the following services : School Medical and Dental, Maternal and Child Welfare, Infectious and Venereal Disease control, Analytical Laboratory, and Mothercraft Home. The Tuberculosis section is responsible for administration of the laws relating to tuberculosis, and for the management of chest clinics and chest hospitals at New Town and Perth. The Mental Hygiene section is responsible for administration of the laws relating to mental hospitals and mental defectives, and for the management of Lachlan Park Hospital (Mental Hospital) 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 method 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 thirty-fourth session met at Canberra in November, 1952.

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; and (*d*) in the training of persons in medical research.

Approved research institutions under this system now number 51. During 1952 grants numbered 56 in the following fields:—bacteriology, biochemistry, biophysics, clinical research, dentistry, epidemiology, haematology, medical chemistry, neurology, neuro-physiology, obstetrics, pathology, physiology and pharmacology, 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, public health, epidemiology, maternal and child welfare, radio-active isotopes, antibiotic 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.

An insurance benefit scheme for medical workers on the lines of the Federated Superannuation System for Universities is now in operation.

§ 3. The Commonwealth Department of Health.

1. **General.**—The Commonwealth Department of Health was created by an Order-in-Council of 3rd March, 1921. This Order specified various functions to be performed by the Department in addition to Quarantine. Prior to the 1946 amendment of the Commonwealth Constitution, Quarantine was the only constitutional power expressly relating to public health under which the Commonwealth Parliament could legislate. The amendment of 1946 gave the Commonwealth Parliament power to make laws with respect to, among other things, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription) and benefits to students. The Commonwealth is at present providing medical benefits, medical services to pensioners, medicines to pensioners, under the National Health Act 1948–1949;

pharmaceutical benefits under the Pharmaceutical Benefits Act 1947–1952; hospital benefits under the Hospital Benefits Act 1951; medical services in respect of tuberculosis by arrangement with State Governments and tuberculosis allowances, under the Tuberculosis Act 1948; and free milk for school children under the States Grants (Milk for School Children) Act 1950. In earlier issues of the Official Year Book reference has been made to the part played by the Commonwealth in the development of public health in Australia, 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. 222–23). Reference to quarantine is made below (*see* § 3. paras. 12 and 13 and § 4. para. 2).

2. **The Commonwealth Serum Laboratories.**—The laboratories were established in 1916 under the administration of the Quarantine Branch, Department of Trade and Customs (later the Commonwealth Department of Health, Order-in-Council, March, 1921). Work began in temporary quarters but new buildings were erected and occupied in 1918 at Royal Park, Melbourne, where the Commonwealth had acquired 23 acres. In 1936 a farm of 325 acres was purchased at Broadmeadows, 9 miles from Melbourne, for experimental and other purposes. The laboratories function as a Public Health Institute conducting research and training laboratory workers as well as producing a comprehensive range of biological products for use as human and animal therapeutics. Since their foundation 37 years ago, the laboratories have been greatly enlarged both physically and in the scope of the work undertaken.

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 29 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 leptospirosis 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 serious pulmonary disease and to protect the interest of sufferers. 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 for 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. After the 1939–45 War the Acoustic Research Laboratory directed its attention to the problem of deafness in children, particularly the group whose affiliction 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 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 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 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 after the 1939–45 War 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, through the Standards Association of Australia, in consultation with a representative committee of the Commonwealth Department of Health, of the Australian Dental Association and of manufacturers and distributors, 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 and distributors 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 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. Sections of Child Health and Occupational Disease have been established and suitable staff selected.

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, pp. 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. *See also* Chapter XXIX.—Miscellaneous.

8. **The Northern Territory Medical Service.**—As from 1st April, 1939, 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 civilian evacuation during the 1939–45 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.

The Darwin Hospital, when the new ward is completed, will have 187 beds, Alice Springs Hospital will have 90, Katherine Hospital 25 and Tennant Creek Hospital 25. The existing leprosarium at Channel Island will be replaced by a new leprosarium on the mainland to accommodate 300 inmates. The new leprosarium is in course of construction. A pathologist has been appointed to the Health Laboratory. Dental services are available and two clinics have been established, one at Darwin and one at Alice Springs, whilst mobile road and aerial units serve the outback.

An aerial medical service, operated by the Department, is based on Darwin. De Havilland Drover and Dragon aircraft are used, the pilots being supplied by arrangement with Trans-Australia Airlines. Emergency and regular monthly routine visits and surveys are undertaken. At Alice Springs medical officers of the Northern Territory Medical Service provide free service for the Flying Doctor Service base.

The Commonwealth Department of Health maintains a Quarantine Station at Darwin which is a first port of entry for oversea aircraft. Public health services are provided at large centres and all other centres of population are visited periodically by the Senior Health Inspector.

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 1951 the total grants were extended for a further period of three 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 conducted 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.

11. **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.

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 bio-chemists 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 1952, a total of 136,640 millicuries of radon was prepared and issued from the laboratory, while 35,260 millicuries were issued by the associated centres in Sydney, Adelaide and Brisbane. The corresponding figures for 1951 were 145,648 and 42,089 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.

The development of atomic energy programmes overseas has made available supplies of artificial radio-isotopes which can be used as an alternative to natural isotopes such as radium and radon. Supplies of radio-phosphorus and radio-iodine are now being distributed by the laboratory for medical work throughout Australia according to a policy developed by the National Health and Medical Research Council Standing Committee on X-rays. The use of radio-iodine has involved the laboratory in the development of a scheme of physical measurements which can readily be made in hospitals.

12. **Animal Quarantine.**—Animal quarantine is authorized by the provisions of the Quarantine Act 1908–1950 and has as its objective the prevention of the introduction or spread of diseases of animals. This legislation covers the importation of all animals, raw animal products, biological cultures, etc., associated with animal diseases and goods associated with animals.

Domesticated animals, i.e., horses, cattle, pigs, sheep, goats, dogs, cats and poultry, are admitted from a limited number of countries depending on diseases present in the country of origin. All must be accompanied by health certificates which include prescribed tests. On arrival in Australia they are subject to quarantine detention.

Zoological specimens are imported into registered zoos where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a somewhat similar manner, animals for scientific purposes are imported to approved laboratories. All of these premises are kept under constant surveillance. Raw animal products such as hair, special types of wool, skins, hides, etc., are subjected to special treatment under quarantine control, whilst such items as raw meat, sausage casings and eggs, which cannot be sterilized, are admitted from very few countries. Other items such as harness, fittings, fodder, ship's refuse, etc., are appropriately treated to destroy possible infection.

The Division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine; formerly the full responsibility of this aspect was carried by the Director of Quarantine. The organization of the Division provides an excellent example of Commonwealth and State co-operation. The Central Administration is situated within the Health Department at Canberra, with a Director, an Assistant Director and Veterinary Officers. By provision in the Quarantine Act and by arrangement with the States, the Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of the State and members of his staff Quarantine Officers (Animals). These State officers, acting in their Commonwealth capacity, implement quarantine policy as formulated by the Central Administration. Quarantine accommodation is provided at permanent animal quarantine stations at each Capital City.

The Division participates in world-wide international notification of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions, notably the Commonwealth Scientific and Industrial Research Organization. In matters of policy and the implementation of quarantine control of imports there is a close liaison with the Department of Trade and Customs.

The Division collaborates with the "General" and "Plant" Divisions of the Quarantine Service. Many diseases of animals are communicable to man and for this

reason "Animal" and "General" quarantine administration are in some respects inseparable. Similarly the interests of "Animal" and "Plant" Divisions overlap, many items such as insects, fodder, straw, etc., being the subject of combined control.

13. **Plant Quarantine.**—Since 1st July, 1909, the importation into Australia of all plants or parts of plants, cuttings, seeds and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country. Under the Quarantine Act 1908–1950 general powers are held by which the quarantine inspectors are required to examine all plant material at the first port of entry and to release only such material as is free from diseases and pests. Everyone reaching Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found deliberately evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel for which they are reimbursed by the Commonwealth. In 1921 the administration of the regulations came under the newly-formed Department of Health, and in 1927 the Division of Plant Quarantine was created under a Director who is responsible for policy and legislation and for co-ordinating the work of the State Officers who carry out the detailed administration in their capacity as Commonwealth Officers.

Any plant material found carrying diseases or pests or suspected of doing so may be ordered into quarantine for remedial treatment, or if the treatment be impracticable, may be destroyed. Such treatments are paid for by the importer. Air transport has created many new problems in maintaining effective control. It is impossible in this summary to give details of regulations governing the different types of plants, but the following will indicate certain broad principles in them :—(*a*) The importation of plant diseases, insect pests, noxious fungi, certain weeds and poison plants, and soil likely to carry these things is prohibited ; (*b*) Agricultural seed must conform to standards of purity ; (*c*) Many commodities such as hops, cotton, peanuts in shell, nursery stock, potatoes, important crop seeds, vines and specified plants may only be imported by approved importers under special conditions ; (*d*) Certain plant products, such as bulbs and timber (in logs or sawn), from specified areas may only be imported if accompanied by certificates showing that prescribed treatment has been given in the country of origin.

The regulations are constantly being amended in the light of experience, with the object of maintaining for Australia the freedom from a large number of serious diseases and pests of plants which ravage crops in other lands.

§ 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. (*See* § 3. paras. 12 and 13 above.)

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 smallpox 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 Territory the diseases notifiable in 1952 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 YEAR ENDED 31st DECEMBER, 1952.

Disease.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Acute rheumatism†‡	24	35	*	*	9	*	1	..	69
Amoebiasis	*	38	7	2	5	..	..	..	52
Anchylostomiasis	*	2	127	..	7	..	6	..	142
Anthrax	*	..	..	..	..	..	..	..	..
Bilharziasis	*	..	..	..	..	..	..	..	..
Brucellosis	5	20	11	2	6	..	..	..	44
Chorea†‡	1	5	*	*	3	*	..	..	9
Dengue†	*	*	*	..	..	*	..	..	..
Diarrhoea, infantile†‡	33	31	443	*	15	14	56	..	592
Diphtheria	266	246	218	23	124	13	1	1	892
Dysentery, bacillary	*	103	278	106	72	..	2	29	590
Encephalitis	12	31	2	23	..	..	3	..	71
Filariasis†	*	..	..	..	..	..	..	..	..
Homologous serum jaundice†	*	2	*	*	..	*	..	..	2
Hydatid	*	23	*	*	..	14	..	..	37
Infective hepatitis	*	112	*	*	654	*	9	..	775
Lead poisoning	*	*	4	*	4	*	..	..	8
Leprosy	..	3	5	..	34	..	12	1	55
Leptospirosis	*	*	74	*	..	*	1	..	75
Malaria	*	2	27	..	8	..	7	..	44
Meningococcal infection	161	185	37	30	35	44	5	3	500
Ophthalmia	*	*	*	*	56	..	..	..	56
Ornithosis	*	1	*	..	..	*	..	..	1
Paratyphoid	2	1	..	2	3	..	..	..	8
Poliomyelitis	414	297	165	709	37	98	12	1	1,733
Puerperal fever	8	3	32	7	3	..	2	..	55
Rubella	*	1,833	18	*	147	1	1	33	2,033
Salmonella infection	*	*	*	*	22	*	2	..	24
Scarlet fever	923	1,373	372	197	124	273	..	13	3,275
Tetanus	*	12	40	*	13	*	2	..	67
Trachoma	*	..	*	*	1	*	..	..	1
Trichinosis	*	*	*	..	..	*	..	..	..
Tuberculosis	1,793	1,013	778	417	513	207	41	24	4,786
Typhoid fever	13	29	15	2	6	..	..	..	65
Typhus—flea, mite or tick borne	4	2	55	4	26	..	..	..	91

* Not notifiable. † Acute rheumatism, chorea, dengue, infantile diarrhoea, filariasis and homologous serum jaundice were made notifiable in Victoria in June, 1952. ‡ Acute rheumatism, chorea and infantile diarrhoea have been notifiable in New South Wales since September, 1952.

NOTE.—No cases of cholera, plague, smallpox, epidemic typhus or yellow fever were notified.

(ii) *Venereal Diseases.* 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. 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.

4. **Vaccination.**—There is statutory provision for compulsory vaccination in all States except New South Wales. Jennerian vaccine for vaccination against smallpox 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.

§ 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 *see* § 1. State Public Health Legislation and Administration, pp. 509-13.

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

1. **General.**—In earlier issues of the Official Year Book (*see* No. 22, p. 498) reference was 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, 1952.**—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, 1952.

Particulars.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust. (b)	Tasmania. (a)
Premises registered ..	15,845	25,423	21,400	11,319	561	7,165
Cows in milk thereon	540,509	718,735	560,100	97,574	18,034	92,254

(a) March, 1952. (b) Dairies registered with the Milk Board for whole milk or sweet cream for table use.

§ 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.**—The School Medical Service became a Division of the Department of Public Health in 1946, having previously been administered by the Department of Education since 1913–14, when it was founded. It provides a service of medical inspection of pupils of all schools administered by the Department of Education and the majority of other schools in the State. It is prepared to provide an equal service for all schools when requested. The primary object of the service is the medical examination of children to discover any departure from normal in the health of a child, either physical or mental, and to notify the parent or guardian in order that the child may be further investigated to determine the need for treatment. In many cases it is not possible to make a diagnosis of the conditions found at the time of the examination. This is due partly to the fact that only a limited time can be devoted to each individual examination, and also to lack of facilities within the service for further investigation. Treatment is accepted as the responsibility of the practising medical profession.

In the metropolitan, Newcastle and Wollongong areas and in a number of the larger towns in the State, each school—primary and secondary—is visited annually, and children in 1st and 5th classes and 1st and 5th years are fully examined. Children in other classes are reviewed, as necessary. In the remainder of the State it is the aim of the service to visit schools every three years, and all children are examined. Up till now it has not been possible to cover the State fully owing to shortage of medical staff.

The establishment for the School Medical Service consists of 32 medical officers (including a Director and a Deputy Director), a part-time medical officer, 4 psychiatrists, 22 nurses, 10 speech therapists, 4 psychologists, 6 social workers (5 full-time and one part-time), a part-time ear, nose and throat surgeon, 2 trainees in speech therapy, 14 clerical officers and a switchboard operator. Except for speech therapists, of whom only five have been appointed, the staff of the service is maintained at full strength.

Nurses are employed in the metropolitan, Newcastle and Wollongong areas to assist in the preparation of the schools prior to the visit of the medical officers, and to follow up cases where parents have not sought medical advice as recommended by medical officers.

In 1952 every school in the metropolitan, Newcastle and Wollongong areas was visited, and a number of schools in country areas. In the metropolitan area there were 202,653 children in primary schools and 59,069 children in secondary schools; in the remainder of the State there were 226,228 in primary schools and 58,395 in secondary schools. The number of full examinations of primary school children in the metropolitan areas was 57,408, and in secondary schools 19,855. The figures for the remainder of the State were 45,537 in primary schools and 14,848 in secondary schools—thus making a total of 137,648 full examinations carried out. The number of children who were reviewed was 30,730.

Notices covering conditions departing from the normal were sent by medical officers in 20.7 per cent. of the cases of full examination. This percentage is less than for previous years, owing to the fact that notices were sent regarding teeth only when the state of the mouth was particularly unhealthy, and not when minor defects were observed.

During the year two oculists visited the western areas of the State, and in addition to the examination of children refracted the eyes of those who showed loss of visual acuity.

There are four Child Guidance Clinics administered by the School Medical Service, and the clinics examine children referred by school medical officers, teachers, and Child Welfare Department and various outside bodies. Boy and girl delinquents are examined at the clinics at the request of the Children's Court.

A hearing clinic conducted by a part-time ear, nose and throat surgeon functioned throughout the year. The parent of any child found to have a defect of hearing at the time of the school medical examination was invited to bring the child to the clinic for a full investigation in order to determine the cause of the loss of hearing.

Recommendations with regard to children examined and found to have severe loss of hearing were made to the Education Department, as to the most suitable method of education. Through liaison with the Commonwealth Acoustic Laboratory a number of children were fitted with hearing aids free of charge.

Five full-time speech therapists were appointed at the beginning of the year and five clinics were established. There is a considerable field for work in speech therapy, and it is hoped that these clinics will be the forerunners of a number of others.

All students desirous of entering a Teachers' College were examined by the School Medical Service. The health of the students within the colleges is supervised by medical officers of this service, who in addition to this duty, also act as lecturers at the colleges in the subject of school health. The Department of Education referred a number of teachers for medical examination, covering sick leave cases, cases for retirement, etc.

The service provides a nurse at each of the two National Fitness Camps, whose duty is to provide first aid treatment for the children attending the camps and to advise on matters relating to their health.

Other duties of the School Medical Service include the supervision of the health of children attending departmental nursery schools, reporting on matters relating to school sanitation, and special examination of children, e.g. those attending the Far West Health Camp, immigrant children on arrival, children in attendance at Glenfield Special School, and special cases referred by the Child Welfare Department or the Education Department.

3. **Victoria.**—Medical inspection of school children was established in 1909. Regular medical examination every three years is carried out within the limits of staffing to ascertain defects, to ensure as far as possible suitable treatment and to refer children physically and mentally handicapped to special schools and classes available for their education.

At the routine inspection each child is weighed and measured, eyesight and hearing tested and defects of teeth, throat, skin and posture noted. The child is questioned and advised concerning general hygiene, cleanliness, etc., and is then undressed and examined as for life assurance. A school nurse assists each medical officer at the examination and is also responsible for the sending of defect notices to the parent. In many cases she also interviews the mother either at the school or in the home, thus acting as liaison between medical officer, parent and teacher. In cases where a serious defect is found the parent attends the school by appointment for a discussion with the medical officer. School nurses visit all metropolitan schools twice each term to carry out hygiene inspections, for pediculosis, cleanliness and infectious skin conditions. The cities of Ballarat, Bendigo, Geelong and Mildura are also visited.

Special classes of school are provided by the Education Department for physically and mentally handicapped children, such as the partially sighted, partially deaf, undernourished, those with minor postural defects, speech handicaps, mentally retarded, etc. Children attending these classes are kept under regular medical supervision during their school career. Many children are given special appointments on account of behaviour problems, truancy, etc. These cases are also investigated by a school nurse, and, if necessary, sent on to the appropriate psychiatric clinic. Visits to state schools within the metropolitan area are maintained regularly. Extension of the service to children attending Roman Catholic primary schools in metropolitan districts and country areas as medical staff became available was agreed upon in April, 1950, and these schools are now included in the regular itineraries.

Country districts are gradually being included, and all schools in the regions of Glenelg, East Gippsland, Gippsland and Central Highlands are now under regular medical inspection every three years.

During the year ended 30th June, 1952, 89,883 children were examined by medical officers in schools and 108,199 by the School Nursing Staff. The cost of the School Medical Service for 1952 was £45,378.

The School Dental Service affords dental treatment to children attending primary schools and resident in institutions in certain parts of the State. The districts included are progressively extending as facilities and staff increase. Children from metropolitan

schools in industrial suburbs are transported to the School Dental Centre by contract bus service. Country schools are visited by mobile dental units. Three new dental vans and a two-surgery semi-trailer unit have been added to the mobile service, and all former country itineraries were resumed in 1952. This service now extends through the Mallee, Gippsland and East Gippsland regions, and parts of the Goulburn, Upper Goulburn and Port Phillip regions. As further mobile units are obtained, new regions will be added. The Dental Division has a staff of 31 dentists and 30 dental attendants. During 1952, 24,770 children attending 218 schools received dental examination and all necessary treatment, including 27,466 extractions, 31,347 fillings and 11,747 other treatments. The cost for the year 1952 was £82,500.

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 two full-time and one part-time officer under the general direction of the Chief Medical Officer, School Health Services. These officers examine as thoroughly as possible all children who have recently entered school and those children referred to them by the school nurses.

The nurses now number 16. Each nurse is assigned a group of schools and in areas where Departmental medical officers are stationed, screens all children prior to the officer's visit. In other areas parents are notified direct of suspected defects found by the nurse who also reports on the sanitation, cleanliness and ventilation of the school, notifies the head teacher of all infectious or verminous children and advises regarding appropriate treatment. During 1951–52, school nurses examined 81,691 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 a staff of 23 dentists, and one part-time dental inspector. These officers are each assigned a district and visit schools in rotation. During 1951–52, 40,133 children were examined; 29,667 extractions were performed; and there were 68,740 fillings and 34,128 other treatments.

In order to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, four Rail Dental Clinics equipped on the most modern lines have been constructed. 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.

Local practitioners in Western Queensland act as part-time ophthalmic officers.

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

This service cost £74,381 in 1951–52.

5. **South Australia.**—The system of medical inspection in operation 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 and in home nursing to Domestic Arts students.

The medical staff consists of a principal medical officer, 4 full-time and a part-time medical officer and 5 trained nurses. Five dentists and 4 dental assistants are

attached to the Branch. On 1st July, 1951 the Medical Branch of the Education Department was transferred to the Department of Public Health. The Psychology Branch and Speech Therapist remain in the Education Department.

During 1952, 31,913 children were examined by medical officers and of these 2,217 required notices for defective vision, 642 for defective hearing, and 2,204 for tonsils and adenoids.

The Psychology Branch consists of a psychologist, 2 assistant psychologists, a senior guidance officer, 2 guidance officers, 2 social workers, an advisory teacher of opportunity classes, an advisory teacher of hard of hearing children, a half-time speech therapist and a part-time consultant psychiatrist. 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 those with such problems as backwardness, retardation, truanting, delinquency, etc. In addition, the parents of all children examined are always interviewed and their co-operation is sought.

Educational. In addition to supervising 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 guidance officers test and advise all children about to leave school. The guidance officers are also responsible for the supervision of record cards where used in primary schools.

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 combined in 1950–51 was £15,020.

6. **Western Australia.**—Under the Public Health Act 1911–1952 the medical officers appointed by the local authorities became medical officers of schools and of school children. The principle aimed at is that every school child shall be examined once every two years.

In the Health Department there are five full-time medical officers for schools. During 1952, 40,407 children were examined (metropolitan 21,671, country 18,736), of whom 20,867 were boys and 19,540 girls. There were 209 schools visited, comprising metropolitan, 52 State schools and 21 convents and country, 168 State schools, 40 convents and one kindergarten. During 1952 the 12 full-time dental officers employed visited 18 metropolitan schools, and in dental vans visited 153 country schools; the number of children examined was 9,725 of whom 6,505 were treated with parents' consent. The cost of this service for 1951–52 was £16,370.

7. **Tasmania.**—During the year 1952 2 full-time and 3 part-time medical officers were employed in the examination of school children. The Government medical officers also performed routine examinations as part of their ordinary duties. One part-time and 12 full-time sisters visited homes and schools regularly. Of the 22,805 children examined by medical officers 12,521 were found to have defects.

There are now three dental clinics—one at Hobart, another at Launceston, and the third at Devonport—each with a full-time dental surgeon in charge. In addition, five mobile clinics operated in various parts of the State. There were 11,819 new visits paid to dental clinics and 14,757 repeat visits.

The cost of medical and dental services for the year ended June, 1952 was £36,628.

8. **Australian Capital Territory.**—By arrangement, education facilities are provided by the Education Department of New South Wales. In 1930 the Commonwealth Department of Health took over from the State the medical inspection of school children and carried out examinations of entrants and those leaving in that year. From 1943 to 1951, all primary pupils of Government schools in the Territory were medically examined annually.

During 1951, with the appointment of an Infant Welfare and Schools Medical Officer, a plan for triennial examinations of children in primary and secondary schools was introduced, more attention being paid to those children with defects who were marked for review. In 1951, 2,276 children were examined. (This figure includes 802 children attending private schools, which were brought into the scheme for the first time.)

In 1952, 1,438 children were given routine examinations, and an additional 514 children were given partial examinations when they had special conditions marked for

review. At Pre-School Play Centres and Nursery Schools all children were examined on entrance, and reviewed in their second year of attendance. In 1952, approximately 1,000 pre-school examinations were made.

Parents are notified of defects found. The commoner ones are those of hearing, eyesight, and nose and throat. Amongst children of school age, approximately 4 per cent. have defective sight and 5 per cent. have defective hearing.

§ 8. Supervision and Care of Infant Life.

1. **General.**—The number of infant deaths and the rate of infant mortality for the five years 1948 to 1952 are given in the following table, which shows that during this period 23,711 children died in Australia (excluding Territories) before reaching their first birthday. Further information regarding infant mortality will be found in Chapter X.—Vital Statistics :—

INFANT DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1948.	1949.	1950.	1951.	1952.	1948.	1949.	1950.	1951.	1952.
NUMBER OF INFANT DEATHS.										
New South Wales	810	754	754	661	604	1,227	1,124	1,182	1,234	1,214
Victoria.. ..	605	518	511	549	610	498	508	490	594	588
Queensland ..	293	210	232	277	259	486	476	487	484	513
South Australia ..	256	233	235	218	210	216	211	181	210	203
Western Australia	150	149	180	185	179	181	208	206	240	205
Tasmania ..	46	53	52	56	50	147	117	120	140	122
Australia(*a*) ..	2,160	1,917	1,964	1,946	1,912	2,755	2,644	2,666	2,902	2,845
RATE OF INFANT MORTALITY.(*b*)										
New South Wales	26.96	25.19	25.44	22.89	20.71	33.00	28.91	28.18	28.57	26.96
Victoria.. ..	23.77	19.97	19.13	20.66	21.69	24.12	24.27	21.20	24.78	22.96
Queensland ..	29.94	21.38	31.98	26.83	23.73	28.47	26.55	22.37	25.04	25.60
South Australia ..	28.79	26.11	24.68	22.45	21.29	30.96	29.64	23.25	27.09	25.31
Western Australia	23.59	21.52	25.41	26.38	23.52	28.78	31.57	28.83	30.84	26.27
Tasmania ..	22.32	26.21	23.29	26.37	21.62	29.89	23.00	23.96	26.75	21.77
Australia(*a*) ..	26.06	22.94	23.82	23.00	21.73	29.60	27.39	24.97	27.06	25.38

(*a*) Excludes Territories. (*b*) Number of deaths under one year of age per 1,000 live 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, créches, 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 XIV.—Welfare Services.) Under the provisions of the Maternity Allowances, Part V. of the Social Services Consolidation Act 1947–1952, 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 XIV.—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, 1952.

Heading.	N.S.W.	Vic.	Qld.(a)	S. Aust.	W. Aust.	Tas.	A.C.T. (a)	Total.
Baby Health Centres—								
Metropolitan .. No.	83	134	47	73	22	2	4	365
Urban-Provincial and Rural .. No.	212	(b) 321	162	156	23	(c) 91	..	965
Total .. No.	295	455	209	229	45	93	4	1,330
Attendances at Centres No.	1,061,371	1,052,117	363,557	223,924	197,207	138,925	17,700	3,054,801
Visits paid by Nurses No.	20,888	106,327	25,801	29,234	18,644	77,159	2,688	280,741
Bush Nursing Associations —Number of Centres ..	29	58	10	33	8	25	..	163

(a) Year ended 30th June, 1952. (b) Includes eight mobile units. (c) Includes seven mobile units.

In the last twenty years the number of attendances at the Baby Health Centres has more than trebled. The numbers of attendances, at five-yearly intervals, since 1930 were as follows :—1930, 919,893 ; 1935, 1,355,306 ; 1940, 2,035,299 ; 1945, 2,927,764 ; 1950, 3,049,375. During the year 1951 the number of attendances was 2,958,852.

§ 9. Hospital Benefits Act.

1. **General.**—Under the Hospital Benefits Act 1951, which repealed the Hospital Benefits Act 1945–1948, the Commonwealth has entered into agreements with the States to pay to the States hospital benefits at agreed rates for beds occupied by qualified patients in public hospitals ; and has made regulations approving the payment of hospital benefits in respect of patients in private hospitals, the payment of additional benefits and the payment of hospital benefits in respect of persons temporarily absent from Australia.

2. **Hospital Benefits Agreements.**—These agreements provide that the agreements under the Hospital Benefits Act 1945–1948 shall be deemed to have ceased to be in force. The benefit rate is 12s. per day in relation to a qualified patient who is a pensioner as defined in the National Health (Medical Services to Pensioners) Regulations, or the dependant as so defined of a pensioner not being a qualified patient in a State Benevolent Home and who—(*a*) being eligible, has enrolled for benefit under the medical practitioners' service arranged by the Director-General of Health under the National Health Service Act 1948–1949 ; (*b*) produces to the proper hospital authority an entitlement card issued by the Commonwealth for the purposes of the medical services prescribed by the National Health (Medical Services to Pensioners) Regulations ; and (*c*) is not a contributing patient as defined in the Hospital Benefits Regulations.

The benefit rate in relation to all other qualified patients is 8s. per day.

The agreements provide that the States shall ensure that the charges per day payable by qualified patients in respect of beds in public hospitals shall be reduced by the benefit rate.

3. **Hospital Benefits Regulations.**—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 is 8s. per day.

Hospital benefits are payable also to, or in respect of, any person ordinarily resident in Australia who, whilst temporarily absent from Australia, has been a qualified patient in a hospital in any country outside Australia. The benefit rate for these patients is

8s. (Australian currency) per day. Arrangements have been made for these benefits to be paid in several countries oversea where Commonwealth offices are established. Any claims not dealt with overseas receive attention in Australia.

An additional hospital benefit of 4s. per day is payable in respect of each qualified patient in an approved public hospital or an approved private hospital who is a contributor or a dependant of a contributor to the funds of a hospital benefit organization registered by the Commonwealth for the purposes of additional benefits. The additional benefit is not payable if the gross fees payable do not exceed 14s. per day. Where the gross fees exceed 14s. per day, but do not exceed 18s. per day, the rate of additional benefit payable is ascertained by deducting an amount of 14s. from the amount of those gross fees per day. The additional benefit is paid through the registered organization, either to the contributing patient or to the hospital concerned.

§ 10. Mental Institution Benefits Act.

The Mental Institution Benefits Act 1948 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.

Agreements made with all States provide for the payment of benefits at a rate per patient-day determined separately in respect of each State and based on the amounts received by that State from the estates and relatives of patients during the year ended 30th June, 1948. Under the agreements the States are required 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.

The main provisions of this Act, which was assented to on 25th November, 1948, are as follows :—(*a*) Section 5, which authorizes the Commonwealth to enter into an arrangement with the States for an effectual national campaign against tuberculosis ; (*b*) Section 6, which empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis ; (*c*) Section 8, which provides for the setting up of an Advisory Council to advise the Commonwealth Minister for Health on matters relating to the national campaign ; and (*d*) Section 9, which authorizes the Commonwealth to pay allowances to sufferers from tuberculosis and their dependants to enable sufferers to give up work and undergo treatment, and thus minimize the spread of infection.

The Commonwealth has completed an arrangement with each State, whereby each State is required to conduct an effectual campaign against tuberculosis and to provide adequate facilities for that purpose. In consideration of this, the Commonwealth undertakes to reimburse the State for all approved capital expenditure in relation to tuberculosis on and after 1st July, 1948, and for net maintenance expenditure to the extent it is in excess of net maintenance expenditure for the base year 1947–48. Thus, the States are required to carry out the actual physical or field work of the national campaign with the Commonwealth acting in an advisory, co-ordinating and financial capacity. For this reason, the Commonwealth has not found it necessary to make much use of its powers under Section 6.

An Advisory Council, known as the National Tuberculosis Advisory Council, has been set up and has already had three meetings. There are eleven members under the chairmanship of the Commonwealth Director-General of Health. The members are the Commonwealth Director of Tuberculosis, the six State Directors of Tuberculosis, the Consultant (Chest Diseases) of the Department of Repatriation, two specialist private practitioners, and the Chief Administrative Officer of the Commonwealth Department of Health.

A system of tuberculosis allowances has been drawn up and is an important factor in the campaign against the disease. Payments under the scheme were commenced on 13th July, 1950. The rates of allowance from 29th October, 1953 were £9 2s. 6d. a week for a married sufferer with a dependent wife, £5 12s. 6d. a week for a sufferer without dependants (reducible to £3 10s. when maintained free of charge in an institution), and 10s. a week for each dependent child under the age of sixteen (which is additional to child endowment). There is a means test, generous to the sufferer, which has regard only to income and not to property.

§ 12. Pharmaceutical Benefits Act.

A Pharmaceutical Benefits Act was passed by 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. 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 embodied a scheme for providing pharmaceutical benefits to all persons ordinarily resident in Australia. The benefits provided were contained in a Commonwealth Pharmaceutical Formulary, which was subject to periodic revision by a Formulary Committee comprised of members of the medical and pharmaceutical professions. Benefits were 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 existed 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. Further Pharmaceutical Benefits Acts were assented to on 25th March, 1949 and 7th July, 1949 respectively, but a clause in the former which sought to compel the use by doctors of official prescription forms when prescribing pharmaceutical benefits was held by the High Court to be invalid. In August, 1950 the Government amended the regulations under the Act, thereby limiting the range of benefits to a list of live-saving and disease-preventing drugs compiled on the recommendation of a special Medical Advisory Committee. These regulations came into force on 4th September, 1950. Subsequent amendments restrict the use of certain drugs to the treatment of specified diseases. By a Pharmaceutical Benefits Act assented to on 1st November, 1952, the number of committees to be established under the Act was to be determined at the discretion of the Minister.

§ 13. Pensioner Medical Service.

The Pensioner Medical Service which commenced on 21st February, 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations in accordance with the provisions of the National Health Service Act 1948–1949.

Under this service medical treatment of a general practitioner nature, such as is usually rendered in the doctor's surgery or in the patient's home, is provided for eligible pensioners and their dependants, but it does not extend to specialist services. The service also includes the supply of medicines prescribed by medical practitioners under the National Health (Medicines for Pensioners) Regulations. Subject to certain terms and conditions, any registered medical practitioner may participate in the service, which is free to eligible pensioners and their dependants. However, a medical practitioner may charge a pensioner a small fee for "after hours" service or for travelling beyond a certain distance from his surgery. Medical practitioners participating in the service are remunerated on a concessional fee-for-service basis by the Commonwealth, and the pensioner has freedom of choice as to which participating doctor he will consult.

To be eligible for the benefits of the Pensioner Medical Service, a pensioner must be in receipt of an Australian age, invalid, widow's or service pension (but not a war pension) or a tuberculosis allowance, and he must have an entitlement card issued by the Commonwealth for the purposes of the service.

At 30th June, 1952, there were 3,502 medical practitioners enrolled in the Pensioner Medical Service to provide medical services to approximately 501,400 pensioners and dependants. More than 90 per cent. of eligible pensioners have been enrolled for the benefits of the service, and it is estimated that more than 80 per cent. of active general medical practitioners in Australia are participating.

During the year ended 30th June, 1952, participating medical practitioners were paid £1,034,902 from the National Welfare Fund. This was made up of £1,020,905 for 2,332,824 medical services to pensioners and their dependants (1,227,829 surgery consultations and 1,104,995 domiciliary visits), and £13,997 for approximately 140,000 miles travelled by participating medical practitioners, outside a radius of 3 miles from their surgeries, in visiting pensioners and their dependants. The number of medical services rendered by medical practitioners averaged 4.6 per enrolled pensioner and dependants for the year ended 30th June, 1952, but at the end of that year services were being rendered at the rate of 5.4 per eligible person per annum.

§ 14. Free Milk for School Children Scheme.

In 1950 the States Grants (Milk for School Children) Act was passed. The objective of this Act was to improve the diet of school children by the addition of a small quantity of milk each day. All children under the age of thirteen years attending public or primary schools, including nursery schools, kindergartens, créches and aboriginal missions, are eligible to receive this issue. The Act provides that the cost of supplying the milk, which is given to the children in one-third of a pint bottles, wherever practicable, is reimbursable by the Commonwealth to the States plus half the capital or incidental costs, including administrative expenses incurred in administering the scheme. All States are now participants in the scheme, and at present approximately 700,000 children are receiving free milk.

In the more remote areas powdered milk is supplied where fresh milk is not available. Eventually it is expected that one million children will be covered by this scheme. In the years 1950–51 and 1951–52 the following amounts were reimbursed to the various States and Territories :—1950–51—New South Wales, £35,683 ; Australian Capital Territory, £92 ; Total, £35,775 ; 1951–52—New South Wales, £440,316 ; Victoria, £140,000 ; South Australia, £74,642 ; Western Australia, £67,480 ; Tasmania, £90,390 ; Northern Territory, £158 ; Australian Capital Territory, £3,989 ; Total, £816,975.

§ 15. Disposal of the Dead by Cremation.

The disposal of the dead by cremation has been in existence in Australia for many years, as the first crematorium was opened in South Australia in 1903. The number of crematoria in New South Wales is five ; the first was opened in 1925. There are two crematoria in Victoria ; the first crematorium opened in 1905, but was closed in 1926 and re-opened in 1936, while the other one was opened in 1927. There are two crematoria in Queensland, the first being opened in 1934. In South Australia there is one crematorium which opened in 1903. In Western Australia there is one crematorium which opened in 1939. In Tasmania there are two crematoria ; the first was opened in 1936.

The following table shows the number of cremations in each State for the ten years 1943 to 1952 :—

CREMATIONS.

Year.	N.S.W.	Vic.	Q'land.(a)	S. Aust.(a)	W. Aust.	Tas.	Aust.
1943	6,312	2,198	1,344	142	376	272	10,644
1944	6,132	2,394	1,482	145	389	333	10,875
1945	6,418	2,604	1,481	167	479	325	11,474
1946	7,054	2,950	1,593	155	504	328	12,584
1947	7,443	3,162	1,742	176	527	355	13,405
1948	8,273	3,642	1,925	214	627	434	15,115
1949	8,591	4,157	2,010	231	610	406	16,005
1950	9,170	4,425	2,155	225	726	421	17,122
1951	9,815	4,808	2,377	280	874	485	18,639
1952	10,165	5,338	2,671	347	929	532	19,982

(a) Year ended 30th June.

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 public 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, 1950-51.**—Details regarding the number of hospitals, staffs and accommodation for the year 1950–51 are given in the following table :—

PUBLIC HOSPITALS : NUMBER, STAFF AND ACCOMMODATION, 1950–51.

Particulars.	N.S.W.	Vic.(*a*)	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Number of Hospitals ..	255	98	131	60	94	25	1	664
Medical Staff—								
Honorary	2,756	1,156	151	351	230	106	19	4,769
Salaried	604	413	394	98	66	76	4	1,655
Total	3,360	1,569	545	449	296	182	23	6,424
Nursing Staff	9,065	5,186	4,356	1,762	1,781	834	71	23,055
Accommodation—								
Number of beds and cots	18,536	10,128	8,237	3,374	4,015	1,943	184	46,417

(*a*) Year ended 31st March, 1951.

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 outdoor or verandah sleeping places.

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

PUBLIC HOSPITALS : IN-PATIENTS (CASES) TREATED, 1950–51.

Particulars.	N.S.W.	Vic.(*a*)	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Inmates at beginning of year—								
Males	5,863	2,916	2,914	993	1,258	481	58	14,483
Females	7,645	3,967	3,132	1,346	1,357	681	88	18,216
Total	13,508	6,883	6,046	2,339	2,615	1,162	146	32,699
Admissions and Re-admissions during year—								
Males	141,261	63,039	74,693	23,706	32,779	11,701	1,392	348,571
Females	207,896	100,632	87,673	31,356	36,698	19,736	2,460	486,451
Total	349,157	163,671	162,366	55,062	69,477	31,437	3,852	835,022
Total in-patients (Cases) treated—								
Males	147,124	65,955	77,607	24,699	34,037	12,182	1,450	363,054
Females	215,541	104,599	90,805	32,702	38,055	20,417	2,548	504,667
Total	362,665	170,554	168,412	57,401	72,092	32,599	3,998	867,721
Discharges—								
Males	134,802	59,152	71,440	22,225	31,549	11,206	1,330	331,704
Females	203,039	97,764	85,583	30,419	35,863	19,310	2,429	474,407
Total	337,841	156,916	157,023	52,644	67,412	30,516	3,759	806,111
Deaths—								
Males	6,461	3,885	3,096	1,421	1,280	504	48	16,695
Females	4,743	2,891	2,017	1,020	851	398	33	11,953
Total	11,204	6,776	5,113	2,441	2,131	902	81	28,648
Inmates at end of year—								
Males	5,861	2,918	3,071	1,053	1,208	472	72	14,655
Females	7,759	3,944	3,205	1,263	1,341	709	86	18,307
Total	13,620	6,862	6,276	2,316	2,549	1,181	158	32,962
Average Daily Number Resident	13,580	7,113	6,019	2,326	2,616	1,247	149	33,050

(*a*) Year ended 31st March, 1951.

In addition to those admitted to the hospitals there are arge numbers of out-patients. During 1950–51 there were 991,710 out-patients (cases) treated in New South Wales, 415,495 in Victoria, 485,025 in Queensland, 113,352 in South Australia, 105,698 (estimated) in Western Australia, 84,427 in Tasmania and 10,792 in the Australian Capital Territory, making a total for Australia of 2,206,499.

5. **Revenue and Expenditure.**—Details of the revenue and expenditure for the year 1950–51 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits 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, 1950–51.

(£.)

Particulars.	N.S.W.(a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Revenue—								
Government Aid ..	9,494,117	4,994,795	3,702,212	1,375,732	1,906,628	782,860	131,610	22,387,954
Commonwealth Hospital Benefits ..	(c) 847,175	1,097,000	895,367	320,305	324,703	198,604	25,376	3,708,530
Municipal Aid ..	(d)	76,582	..	85,291	567	..	..	162,440
Public Subscriptions, Legacies, etc.	128,341	893,431	3,233	92,393	35,572	6,832	16	1,159,818
Fees	1,594,651	1,010,285	325,364	242,698	170,813	81,901	6,785	3,432,497
Other	236,266	145,873	41,898	120,306	12,081	32,159	154	588,737
Total ..	12,300,550	8,217,966	4,968,074	2,236,725	2,450,364	1,102,356	163,941	31,439,976
Expenditure—								
Salaries and Wages	7,579,938	3,367,611	2,830,980	1,243,942	1,144,191	648,606	69,720	16,884,988
Upkeep and Repair of Buildings and Grounds ..	407,161	220,435	119,532	117,711	61,468	17,240	4,721	948,268
All Other Ordinary	4,214,249	2,670,172	2,043,798	759,558	810,990	430,244	51,830	10,980,841
Capital(e) ..	(f)	2,169,997	988,420	156,728	415,861	..	37,347	(g)3,768,353
Total ..	12,201,348	8,428,215	5,982,730	2,277,939	2,432,510	1,096,090	163,618	32,582,450

(a) Excludes loan receipts and expenditure. (b) Year ended 31st March, 1951. (c) Portion only of amount allocated to public hospitals. (d) Included in "Other". (e) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings. (f) Not available. (g) Incomplete.

6. **Summary, 1938–39 and 1947–48 to 1950–51.**—A summary, for the years 1938–39 and 1947–48 to 1950–51, of the number of public 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.	1947–48.	1948–49.	1949–50.	1950–51.
Hospitals ..	No.	563	612	624	648	664
Medical Staff ..	,,	4,059	5,336	5,476	5,917	6,424
Nursing Staff ..	,,	13,582	20,153	21,360	22,235	23,055
Beds and cots ..	,,	35,711	43,473	44,509	45,559	46,417
Admissions during year	,,	527,055	691,453	700,321	792,699	835,022
Total indoor cases treated	,,	552,051	719,956	730,009	823,395	867,721
Out-patients (cases) (a)	,,	1,272,147	1,783,674	1,836,122	2,034,317	2,206,499
Deaths	,,	23,372	25,046	24,699	27,057	28,648
Average daily resident .	,,	25,608	28,554	28,942	31,885	33,050
Revenue ..	£	7,106,642	17,392,541	19,465,458	24,943,591	31,439,976
Expenditure ..	£	6,351,055	17,805,479	20,661,275	26,205,194	32,582,450

(a) Partly estimated.

§ 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 1952 there were 17 cases in residence at Little Bay, 33 at Peel Island, 70 at Fantome Island, 303 at Derby, 179 at Channel Island, and 5 cases at Wooroloo, Western Australia. Of the 607 cases, 499 were full-blood aborigines, 51 half-caste aborigines, 5 Asiatics and 54 Europeans.

§ 4. Mental Hospitals.

1. **General.**—The methods of compiling statistics of mental diseases are fairly uniform throughout the States, but there is an element of uncertainty about 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 mental hospitals.

2. **Hospitals, Staff, etc., 1950–51.**—Particulars regarding the number of hospitals, the medical and nursing staffs, and accommodation are given in the following table for the year 1950–51 :—

MENTAL HOSPITALS : NUMBER, STAFF, ACCOMMODATION, 1950–51.(a)

Particulars.	N.S.W.	Vic.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Total.
Number of Hospitals	13	9	4	2	4	1	33
Medical Staff—							
Males	37	68	9	7	5	2	128
Females	8	..	1	1	..	..	10
Total	(c) 45	68	10	8	5	2	138
Nursing Staff and Attendants—							
Males	951	721	474	197	172	92	2,607
Females	958	587	332	190	76	76	2,219
Total	1,909	1,308	806	387	248	168	4,826
Accommodation—							
Number of beds and cots ..	12,013	6,636	4,218	2,377	1,506	762	27,512

(a) The figures relate to years ended as follows :—New South Wales, Queensland, South Australia and Tasmania—30th June, 1951; Victoria and Western Australia—31st December, 1950. (b) Includes the Epileptic Home. (c) In addition there are 40 visiting specialists who are paid for their time.

3. **Patients, 1950–51.**—Information regarding patients treated, deaths, etc., for 1950–51 is given in the following table :—

MENTAL HOSPITALS : PATIENTS, DEATHS, ETC., 1950–51.(a)

Particulars.	N.S.W.	Vic.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year(c)—							
Males	6,982	3,884	2,628	1,363	1,040	465	16,362
Females	7,268	4,525	2,455	1,399	704	534	16,885
Total	14,250	8,409	5,083	2,762	1,744	999	33,247

(a) *See* footnote (a) to previous table. (b) *See* footnote (b) to previous table. (c) Excludes transfers to other institutions.

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1950–51(*a*)—*continued.*

Particulars.	N.S.W.	Vic.	Q'land. (*b*)	S. Aust.	W. Aust.	Tas.	Total.
Number of patients on books at beginning of year—							
Males	5,898	3,304	2,162	1,140	933	321	13,758
Females	6,125	3,899	1,991	1,170	614	365	14,164
Total	12,023	7,203	4,153	2,310	1,547	686	27,922
Admissions and re-admissions (excluding absconders retaken and transfers from other hospitals)—							
Males	1,084	580	466	223	107	144	2,604
Females	1,143	626	464	229	90	169	2,721
Total	2,227	1,206	930	452	197	313	5,325
Discharges (including absconders not retaken)—							
Males	448	229	255	75	35	123	1,165
Females	503	222	244	69	27	126	1,191
Total	951	451	499	144	62	249	2,356
Deaths—							
Males	396	235	152	105	65	27	980
Females	398	251	137	102	50	41	979
Total	794	486	289	207	115	68	1,959
Number of patients on books at end of year—							
Males	6,138	3,420	2,221	1,183	940	315	14,217
Females	6,367	4,052	2,074	1,228	627	367	14,715
Total	12,505	7,472	4,295	2,411	1,567	682	28,932
Average daily number resident—							
Males	5,509	2,951	2,134	1,150	904	311	12,959
Females	5,531	3,459	1,930	1,162	586	369	13,037
Total	11,040	6,410	4,064	2,312	1,490	680	25,996
Number of patients on books at end of year per 1,000 of population—							
Males	3.68	3.06	3.58	3.30	3.19	2.11	3.38
Females	3.86	3.64	3.50	3.40	2.25	2.59	3.56
Total	3.77	3.35	3.55	3.35	2.73	2.34	3.46
Average number of patients resident in mental hospitals per 1,000 of population—							
Males	3.34	2.68	3.49	3.24	3.15	2.11	3.13
Females	3.40	3.13	3.31	3.26	2.16	2.63	3.20
Total	3.37	2.91	3.41	3.25	2.67	2.36	3.16

(*a*) *See* footnote (*a*) to previous table. (*b*) Includes the Epileptic Home.

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

4. **Revenue and Expenditure, 1950–51.**—The revenue of Government mental hospitals is small in comparison with their cost, and consists chiefly of patients' fees, and mental institution benefits. The proportion of expenditure borne by the State amounts to about 87 per cent. In New South Wales the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals :—

MENTAL HOSPITALS : FINANCES, 1950–51.

(£.)

Particulars.	N.S.W.	Vic.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Total.
Revenue (excluding Government Grants)—							
Fees of Patients ..	114,211	96,949	34,253	15,875	24,384	2,274	287,946
Mental Institution Benefits	198,165	146,728	..	33,369	12,869	9,177	400,308
Other	73,308	17,185	1,587	25,522	5,528	111	123,241
Total	385,684	260,862	35,840	74,766	42,781	11,562	811,495
Expenditure—							
Salaries and Wages ..	1,325,637	825,246	505,998	274,641	206,559	119,558	3,257,639
Upkeep and Repair of Buildings, etc. ..	40,711	107,242	8,723	33,691	20,856	5,907	217,130
All Other(b)	1,269,476	941,769	370,742	202,408	111,869	78,829	2,975,093
Total	2,635,824	1,874,257	885,463	510,740	339,284	204,294	6,449,862
Expenditure per Average Daily Resident ..	£238/15/0	£292/7/11	£217/17/7	£220/18/2	£227/14/2	£300/8/8	£248/2/2

(a) Includes the Epileptic Home. (b) Includes the following amounts for capital expenditure on Purchases of Land, Cost of New Buildings, and Additions to Buildings : New South Wales, £298,564 ; Victoria, £222,907 ; Queensland, £21,661 ; South Australia, £25,341.

5. **Summary for Australia, 1938–39 and 1947–48 to 1950–51.**—The following table gives a summary relating to mental hospitals in Australia during 1938–39 and for each of the years 1947–48 to 1950–51 :—

MENTAL HOSPITALS : SUMMARY, AUSTRALIA.

Particulars.		1938–39.	1947–48.	1948–49.	1949–50.	1950–51.
Hospitals	No.	35	34	33	33	33
Medical Staff ..	,,	92	108	116	128	138
Nursing Staff ..	,,	4,922	4,198	4,487	4,694	4,826
Beds	,,	25,654	27,219	27,272	27,397	27,512
Admissions	,,	3,757	4,061	4,289	4,587	5,325
Discharged as recovered, relieved, etc. ..	,,	1,800	1,969	2,089	2,202	2,356
Deaths	,,	1,632	1,923	1,991	1,886	1,959
Inmates at end of year	,,	26,509	27,214	27,425	27,922	28,932
Average daily resident	,,	24,063	24,936	24,973	25,319	25,996
Revenue (excluding Government Grants) ..	£	262,817	508,201	593,601	725,405	811,495
Expenditure—Total ..	£	1,903,817	3,575,676	4,484,879	5,390,526	6,449,862
,, —Per Average daily resident..		£79/2/4	£143/7/11	£179/11/9	£212/18/1	£248/2/2

6. **Number of Mental Patients, 1938–39 and 1947–48 to 1950–51.**—The total number returned as under treatment shows slight increases during the period but the proportion to total population shows a slight decline. 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 mental diseases.

MENTAL PATIENTS IN HOSPITALS.

State.	1938–39.	1947–48.	1948–49.	1949–50.	1950–51.
	NUMBER.				
New South Wales	11,678	11,836	11,825	12,023	12,505
Victoria	7,326	7,052	7,120	7,203	7,472
Queensland(a)	3,650	4,008	4,068	4,153	4,295
South Australia	1,747	2,165	2,213	2,310	2,411
Western Australia	1,477	1,505	1,537	1,547	1,567
Tasmania	631	648	662	686	682
Australia	26,509	27,214	27,425	27,922	28,932
	PER 1,000 OF POPULATION.				
New South Wales	4.25	3.91	3.80	3.73	3.77
Victoria	3.92	3.42	3.38	3.33	3.35
Queensland(a)	3.59	3.55	3.54	3.51	3.55
South Australia	2.93	3.29	3.29	3.30	3.35
Western Australia	3.16	2.96	2.94	2.84	2.73
Tasmania	2.66	2.47	2.46	2.46	2.34
Australia	3.81	3.56	3.50	3.45	3.46

(a) Includes the Epileptic Home.

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