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CHAPTER XIV.

PUBLIC HEALTH.

A. STATE GOVERNMENT ACTIVITIES

(including activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory).

§ 1. 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.

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.

The Department's activities embrace all matters relating to public health and the greater part of the general medical work of the Government. These include:—
(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 Department of Health comprises four branches, the General Health Branch, the Maternal and Child Hygiene Branch, the Tuberculosis Branch and the Mental Hygiene Branch. The work of these branches is described below.
- (a) The General Health Branch. This branch collaborates with local government health authorities to fight against infectious diseases. Since 1st October, 1954, the State Government, through the Hospitals and Charities Commission, has been responsible for the whole cost of treating cases of infectious disease.

Special clinics for prophylaxis and treatment of venereal disease are attached to several public hospitals in the State and treatment may be obtained at all public hospitals.

The Poliomyelitis Division, which has been operating since 1949, provides a consultant diagnostic service and maintains an after-care treatment service for the whole of the State. Three doctors and a number of visiting physiotherapists and nurses treat a great number of patients, mainly in their own homes.

The Industrial Hygiene Division, staffed by doctors and scientists with a number of specially trained inspectors, supervises the working conditions of persons employed in industry.

- (b) The Maternal and Child Hygiene Branch. This branch is concerned with pre-natal hygiene, the development of pre-school services, and the school medical and dental services.
- (c) The Tuberculosis Branch. The Tuberculosis Branch under the control of a Director of Tuberculosis combats the spread of tuberculosis. Using improved diagnostic facilities and better methods of treatment, it has been possible to reduce greatly the incidence of this disease. No longer is there a waiting list for entry into a sanatorium; in fact, the former State sanatorium at Greenvale is now used as an institution for the aged.
- (d) The Mental Hygiene Branch. At the end of 1951, an Authority consisting of three members was established under the Mental Hygiene Authority Act 1950 to take charge of the Mental Hygiene Branch. Although the Authority is head of the branch, detailed administration can be carried out by its officers leaving the Authority free to deal with major

problems relating to the improvement of treatment and accommodation for the mentally ill. The efforts of the Authority at the present time are principally concerned with improving existing hospitals and providing additional accommodation made necessary by the increase in population in the State and with developing preventive out-patient psychiatric services designed to reduce the need for in-patient beds.

The Cancer Institute, set up in 1949 under the provisions of the Cancer Institute Act 1948, is now operating a very active out-patients treatment centre as well as a small inpatient unit. Facilities provided at the Institute for radiation therapy are being extended by installing a 4 m.e.v. linear accelerator. It will be the first of this type of machine to operate in Australia.

- 3. Queensland.—(i) General. The Health Acts 1937 to 1955 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 (leprosy) control. 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 decline in numbers of patients at these institutions. Free treatment of venereal diseases is offered at the Department's male and female clinics in Brisbane, and at any public hospital. Free immunization against diphtheria, whooping cough and tetanus is offered by most of the local authorities. About 94 per cent. of school children in the Greater Brisbane area and 90 per cent. in the rest of the State have been immunized against diphtheria.
- (b) Division of Tuberculosis. A central chest clinic in Brisbane offers Mantoux tests, X-ray examinations, and inoculations of Mantoux negative reactors free of charge and this service is extensively used. A mobile X-ray unit visits country districts. Children in the final grade of primary schools are now being Mantoux-tested and given B.C.G. vaccine.
- (c) Division of Industrial Medicine. This Division exercises supervision over the health of workers in both primary and secondary industries, including control of leptospirosis (Weil's disease), scrub typhus and other fevers of occupational origin in the sugar-cane growing districts north of Ingham.
- (d) Division of Maternal and Child Welfare. This Division offers supervision and advice on the rearing and health of infants and pre-school children at 232 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 Service. This Division comprises the Chief Medical Officer, School Health Services, and a staff of doctors, dentists and visiting school nurses. Every child has a medical examination at least once in three years.
- (f) Division of Mental Hygiene. The Director is responsible for the care and treatment of mentally sick patients in the State's four mental hospitals at Brisbane, Toowoomba, Ipswich and 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 doctors.
- (ii) Hospitals. All public hospitals operate under the district system, which provides for the constitution of hospitals regions and hospitals districts 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 hospital 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 140 public hospitals.

Private hospitals in Queensland are controlled under the provisions of the "Health Acts 1937 to 1955" and the "Private Hospital Regulations 1937". There are 59 private hospitals licensed in the State, containing 1,617 beds and six cots, of which 20, containing 684 beds and three cots, are in Brisbane.

4. South Australia,—The Department of Public Health embraces the activities of the Central Board of Health, the Food Drugs Advisory Committee, the School Medical and Dental Services, Poliomyelitis Services, Deafness Guidance Clinic 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 is elected by metropolitan local boards and one by all other local boards. The Central Board of Health administers the Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouses Registrations 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 1935-1956 constitutes every municipal council and every district council a local board of health for its municipality or district. There are 143 local boards under the general control and supervision of the Central Board. Under the Food and Drugs Act, each 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.

5. Western Australia.—Health services are provided under the Health Act 1911-1957. The central authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified doctor. The State is divided into 147 local government areas which are constituted as municipalities or road boards. Each type of authority has health administration powers.

By law, 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.

Features of recent legislation are as follows:—(a) Act No. 70 of 1948 gives power to control sufferers from tuberculosis and established a Tuberculosis Control Branch; (b) Act No. 11 of 1952 gives wide powers to regulate the sale and use of pesticides; (c) Act No. 34 of 1954 provides for the licensing of manufacturers of therapeutic substances; (d) Act No. 45 of 1954 requires every doctor who at ends a child which dies within 28 days of birth to notify the Commissioner; and (e) Act No. 21 of 1957 gives power to require the notification of any prescribed condition of health in addition to infectious diseases.

6. Tasmania.—The Department of Health Services is under the jurisdiction of the Minister for Health, and the administration of the various divisions is controlled by the permanent head of the department, the Director-General of Health Services, who is also directly responsible for the Division of Hospital and Medical Services. Associated with the Director-General are the Directors of Orthopaedics, Pathology and Anaesthetics, and the Government Analyst.

The Division of Hospital and Medical Services is responsible for the establishment and administration of public hospitals, the provision of specialist services under the supervision of the Directors of Orthopaedics, Pathology and Anaesthetics, the licensing and inspection of private hospitals, the provision of district nursing hospitals and services in country districts, the administration of the district and tourist nursing services, the conduct of homes for the aged and the government medical service, which comprises 18 practices in country districts where there are no private doctors.

The Division of Public Health administers laws relating to environmental sanitation, food and drugs, places of public entertainment, cremation, and notifications of infectious diseases. The Division also controls the school medical and dental services, maternal and child health centres, and the mothercraft home.

The Tuberculosis section conducts comprehensive X-ray surveys and maintains diagnostic clinics and chest hospitals.

The Division of Mental Health is responsible for the building of mental hospitals, the consultative diagnosis and treatment of psychiatric cases, the treatment and care of the mentally ill, the treatment and care of inebriates, the treatment and custody of sexual offenders, the treatment of psychopathic cases, and the care and treatment of retarded children.

7. Northern Territory.—The Commonwealth Department of Health provides hospital, health and medical services in the Northern Territory.

Four general hospitals have been established. The Darwin Hospital has accommodation for 199 in-patients, Alice Springs Hospital, 117, Katherine Hospital, 30, and Tennant Creek Hospital, 34. East Arm Settlement was opened in August, 1955, for the treatment of Hansen's disease. A full range of ancillary services is available at the Darwin hospital which serves as a base hospital for the Territory. Dental clinics have been set up at Darwin and Alice Springs.

Medical and dental services to outback areas are provided by road and air. Aircraft used in the Territory are one Drover and one De Havilland Dove stationed at Darwin, and one Drover at Alice Springs. They are staffed and serviced by Trans-Australia Airlines and are extensively used in ambulance and survey medical work. At Alice Springs, doctors of the Northern Territory provide the medical services to the Flying Doctor Service (South Australian) base.

A section of the Department of Health undertakes continuous investigation into native health.

School doctors and dentists move throughout the area diagnosing and treating. Public health services are provided and health inspectors periodically visit all settlements.

Darwin, as a first port of entry for oversea aircraft and shipping, has a quarantine station.

8. Australian Capital Territory.—The Public Health Ordinance 1928–1930 placed under the control of the Minister for Health all matters relating to public health and hygiene in the Australian Capital Territory. The Minister has appointed a Medical Officer of Health and a number of Health Inspectors to administer and police this ordinance. The Canberra Community Hospital is administered subject to the Minister for Health by a board consisting of five elected members and three members appointed by the Minister. The hospital has accommodation for 253 in-patients, an out-patients department, and a 16 bed tuberculosis chalet. A district nursing service administered by the Commonwealth Department of Health was established in 1950 to provide a home-nursing service for the sick and aged. The service is available at the request of a registered doctor.

§ 2. Supervision and Care of Infant Life.

1. General.—The number of infant deaths and the rate of infant mortality for the five years 1952 to 1956 are given in the following table. Further information regarding infant mortality (including information for each State as a whole and for the Territories) will be found in Chapter XVII.—Vital Statistics.

INFANT DEATHS AND DEATH RATES.

State.		Me	tropolite	ın.	Remainder of State.					
State.	1952.	1953.	1954.	1955.	1956.	1952.	1953.	1954.	1955.	1956.
		1	Number	OF INI	FANT D	EATHS.	-			
New South Wales	604	620	787	814	784	1,214	1,226	1,063	1,036	993
Victoria	610	544	576	549	630	588	589	479	486	498
Queensland	259	228	206	210	224	513	541	489	446	513
South Australia	210	196	199	207	193	203	179	189	224	184
Western Australia	179	180	153	187	156	205	198	206	186	22
Tasmania	50	51	58	55	53	122	126	128	134	117
Australia(a)	1,912	1,819	1,979	2,022	2,040	2,845	2,859	2,554	2,512	2,533
		RA	TE OF	Infant	Morta	LITY.(<i>b</i>)				
New South Wales	20.71	21.45	22.51	22.76	21.33	26.96	26.66	27.85	26.81	25.49
Victoria	21.69	19.56	18.26	16.68	18.13	22.96	22.88	20.72	20.75	21.0
Queensland	23.73	21.02	18.95	18.60	19.93	25.60	27.14	24.08	21.17	24.2
South Australia	21.29	19.71	19.82	20.13	18.47	25.31	21.79	23.08	27.27	21.6
Western Australia	23.52	23.28	19.59	22.50	17.89	26.27	24.36	25.37	22.37	27.8
Tasmania	21.62	22.16	25.45	23.10	22.18	21.77	23.18	23.31	23.48	20.4
Australia(a)	21.73	20.78	20.30	20.03	19.56	25.38	25.23	24.70	23.84	23.8

⁽a) Fxcludes Territories. (b) Number of deaths of children under one year of age per 1,000 live births registered.

Because the health of mothers and infants depends largely on pre-natal attention as well as after-care, government and private organizations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by the institution of baby health centres, baby clinics, crèches, visits by midwives and special attention to the milk supply.

In all 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 to a 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 XV.—Welfare Services.)

Under the provisions of Part V. of the Social Services Act 1947-1957, a sum of £15 is payable to the mother in respect of each confinement at which a living or viable child is born if the mother has no other children under 16 years of age. 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. More detailed information concerning maternity allowances is given in Chapter XV.—Welfare Services.

- 2. 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 concerning the activities of institutions in each State is given.
- (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.

Aus-N.S.W. Vic. Old. S. Aust. W.Aust. Tas. N.T. A.C.T Heading. tralia. (a) (a) (a) 1956. Baby Health Centres Metropolitan N No. 103 156 59 84 28 26 463 Urban-Provincial 1,039 and Rural Νo. 232 387 168 152 30 68 (b) Total No. 335 227 58 94 1,502 543 236 Attendances at No. 1,010,404 1,172,916 401,828 218,495 214,588 133,293 5.692 25,360 3,182,576 Centres Visits paid by Nurses 26,945 118,600 27.964 24,708 20.010 78.092 674 3.497 300,490 No. **Bush Nursing Associa**tions—Number Centres ... 30 57 8 33 11 27 166 1957. **Baby Health Centres** 104 157 462 No. 61 84 32 18 6 Metropolitan Urban-Provincial 239¦(c) and Rural No. 412 171 148 30 63 1,065 Total No. 343 569 232 232 62 81 1,527 Attendances at Centres No. 1,041,273,1,222,820 418,105 220,864 217,728 137,055 7,355 28,472,3,293,672 Visits paid by Nurses 30,684 131,783 24,883 76,718 4,149 320,516 No. 22,672 1.074 28,553 **Bush Nursing Associa**tions-Number of Centres .. 28 56 8 34 12 25 163

(a) Year ended 30th June. (b) Includes eight mobile units which served 26 centres. (c) Includes seven mobile units which served 20 centres.

In the last twenty-five years, the number of attendances at the Baby Health Centres has more than trebled. The numbers of attendances, at five-year 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; and 1955, 3,099,233. During the year 1957, the number of attendances was 3,293,672.

§ 3. Medical Inspection of School Children.

- 1. General.—Medical inspection of school children is carried out in all States, in the Northern Territory and in 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.—(i) School Medical Service. Doctors of the School Medical Service examine children attending all schools administered by the Department of Education and the majority of other schools in the State. They make annual visits to schools in the metropolitan, Newcastle and Wollongong areas, and in Armidale, Tamworth, Bathurst, Orange and Wagga, and examine children in kindergarten or 1st grade in primary schools and 1st and 4th years in secondary schools. Children in other classes are examined or reviewed, as necessary. The vision and hearing of pupils in 4th grade are re-tested. In country areas, doctors aim to visit schools every three years, and examine all children attending. Owing to insufficient staff, the country portion of the programme cannot be completed each year.

If treatment is necessary, the parent is informed in writing and, if possible, is called in for interview. In the metropolitan, Newcastle and Wollongong areas, school nurses follow up these cases with the object of persuading parents to seek medical advice.

As well as examining school children, the medical officer examines the sanitary arrangements at each school. Bush nurses act as school nurses in schools at or near the bush nursing centres and carry out a limited inspection for defects or unhygienic conditions.

Doctors of this service examined 161,581 children in 1955 and 162,945 in 1956. Notifiable defects were found in 22 per cent. of the children examined.

Various surveys of school children are undertaken from time to time, e.g. hearing surveys, hookworm surveys, height-weight surveys, nutrition surveys, and investigations to determine the incidence of enlargement of the thyroid gland, defective vision, postural defects.

Five child guidance clinics, all in the metropolitan area, operate under the administration of the school medical service. One clinic functions at the Yasmar Boys' Shekter and deals exclusively with cases before the Children's Courts. Each clinic is staffed by a psychiatrist, a psychologist and social workers.

- (ii) School Dental Service. The aim of the School Dental Service is to provide dental treatment for children on school premises, to train them in the care of their teeth, and to teach them the principles of dental health.
- Of 32,993 children examined in both city and country schools in 1957, 30,077 were included in a Dental Health Survey. Of these, six per cent. were found to have naturally sound mouths, and 77 per cent. were in need of treatment.

In 1957, the clinics treated 15,920 children in 45,399 visits; 25,352 teeth were extracted, 36,827 permanent fillings and 46,704 other treatments, including prophylaxis, were provided. As the number of clinics is not sufficient to provide more than a limited service, it is necessary to restrict treatment to the ages 6–8 years in the metropolitan area, and 6–9 years in large country centres. In small outlying rural schools, children of all ages are included.

3. Victoria.—The School Medical and Dental Services are gradually being extended throughout the State. The objective of the medical services is to ensure that each child is examined to ascertain any physical defects at least once in every three years of school life. Parents are informed of any defects and told how treatment may best be obtained. In 1956, approximately 115,000 children were examined, 65 per cent. of them being in the metropolitan area. Nurses perform valuable follow-up work in interviewing parents to ensure that as far as possible treatment recommended is carried out. There are at present 31 doctors and 38 nurses employed in this service.

The school dental service affords dental treatment to children attending primary schools and resident in institutions in certain parts of the State. Children from metropolitan schools in industrial suburbs are transported to the school dental centres by contract bus service. Country schools are visited by mobile dental units. Nine dental vans and six semi-trailer (two-surgery) units are operating in the mobile service. The dental service has a staff of 40 dentists and 45 dental attendants. During 1956, 37,000 children attending 387 schools were examined and all necessary dental treatment carried out. This treatment included approximately 35,000 extractions and 62,000 fillings.

4. Queensland.—During 1955-56, doctors and nurses examined 67,807 school children, referring children with defects to their own doctors. In western Queensland, local doctors

act as part-time ophthalmic officers. In North Queensland, two school sisters assist in the control of hookworm. Advice is given on school sanitation, infectious diseases in schools and health education.

During 1955-56, school dentists gave treatment to 10,039 school children whose parents could not afford private treatment. The treatment was carried out at four rail dental clinics and at schools with portable equipment. In addition, school children are treated at hospital dental clinics in the larger towns.

5. South Australia.—Children in State schools are examined while in Grades 1, 4 and 7 in the primary schools, and in their second and fourth years in secondary schools. Efforts are made to visit country schools every three or four years and all the children are examined. Students who wish to become teachers are examined on appointment as preliminary probationary studen s while still attending secondary schools, again immediately prior to entering the Teachers' College and finally when they leave the college to take up teaching. Courses of lectures in hygiene and in first aid are given to all college students and, in addition, domestic arts students are lectured on home nursing.

During 1956, 53,330 children were examined by doctors in 150 country and 82 metropolitan schools. Of these, 3,935 required notices for defective vision, 1,299 for defective hearing, and 1,618 for their tonsils and adenoids.

A deafness guidance clinic was established in 1956. Of the 330 children it examined, 301 were referred to doctors or hospitals for treatment.

Educational work was assisted by talks to mothers' clubs and interviews with parents by doctors and dentists, and by home visits and interviews by nurses.

The Psychology Branch examines difficult children of many types, including those with such problems as backwardness, truancy and delinquency, and assists the parents of the children interviewed in handling these problems. In addition to supervising opportunity and special classes for children who are hard-of-hearing or backward in school work it advises on questions of placement and types of education for ordinary children. Its guidance officers organize vocational guidance work in schools, interview pupils and visit schools. They also lecture to students of the Teachers' College as well as to other interested organizations such as mothers' clubs. Expenditure of the Psychology Branch was £21,985 during 1957 and £18,830 during 1956.

6. Western Australia.—The Department of Public Health has four full-time doctors for schools, who during 1956 examined 37,773 children (metropolitan 30,666, country 7,107) of whom 18,935 were boys and 18,838 girls. The 184 schools visited comprised—Metropolitan: 73 government, 32 convent and 17 kindergarten; Country: 50 government, 10 convent and 2 kindergarten. The aim is to examine every school child once every two years.

During 1956, the 12 full-time dentists employed visited 16 metropolitan schools, 140 country schools, 12 orphanages and 14 native missions. The number of children examined was 12,257 of whom 7,468 were treated with their parents' consent. The cost of this service for 1955-56 was £47,419.

7. Tasmania.—During 1956, two full-time and four part-time doctors examined school children in State and private schools, and 13 full-time and 2 part-time sisters visited homes and schools. Of the 23,613 children examined by doctors, 8,762 were found to have defects, 5,735 requiring dental treatment.

There are 17 school dental clinics. Surgeries are located at Hobart (2), Launceston (2), Burnie and Devonport, mobile clinics being operated in other districts. A full-time dentist is in charge of each surgery or clinic. During the year, there were 19,290 new visits to the school dentists and 29,290 repeat visits.

The cost of the school medical and school dental services for the year ended 30th June, 1956, was £71,143.

8. Northern Territory.—(i) School Medical Service. The Schools Medical Officer makes routine physical examinations of all children attending both pre-school centres and the schools which come under the supervision of the Assistant Supervisor of Education in the Northern Territory. The only children not examined by him are those at the Native Welfare Settlement School, i.e. full-blooded aborigines, who are examined during native health surveys.

Children attending pre-school centres are examined once a year if possible, and all new entrants are examined. It is aimed to provide a medical examination for all children attending primary and secondary school at least three times during their school life—on entry, about two years later, and before they leave school.

An immunization clinic is held one afternoon a week at the Darwin Hospital by the Schools Medical Officer. He also conducts a pediatric clinic at the hospital one afternoon

a week, and is responsible for procedures in connexion with the Salk anti-poliomyelitis immunization campaign which was introduced in 1956.

During the long summer holidays, the services of the Schools Medical Officer are used on relieving work at the Darwin hospital and on general supervision at the infant welfare clinic in Darwin.

- (ii) School Dental Service. A special service for school and pre-school children is available in Darwin. Each dentist is required to work in the infant school clinic for four months a year. At present only pre-school and infant school children are treated every year. Children from primary, secondary and denominational schools are treated at longer intervals, but emergency treatment is available for them at the main Darwin clinic. Full records of all children are kept.
- 9. Australian Capital Territory.—The Commonwealth Department of Health is responsible for the medical inspection of school children in the Australian Capital Territory.

During 1951, with the appointment of an Infant Welfare and Schools Medical Officer, a plan was introduced for triennial examinations of children in primary and secondary schools, attention also being paid to those children with defects, many of whom were marked for review. At pre-school centres and nursery schools, all children were to be examined on entrance and reviewed in their second year of attendance.

It was apparent at the commencement of 1955 that, owing to a great increase in the child population of the Australian Capital Territory, some modification of the School Medical Officer's programme would be necessary if all schools and play centres were to receive their share of attention. Accordingly, in 1955 and 1956, initial examinations were carried out on school children who were members of 1st class (mostly six year olds) instead of five year olds in kindergarten. Examination of this age group was found to be less time-consuming and results were found to be more reliable than those of the earlier age groups. Children in 3rd class (mostly eight year olds) and in third year at high school received full examination whilst those in 6th class (mostly eleven year olds) received tests for sight and hearing only. Pre-school children were examined once only before entering primary school.

In 1956, 1,305 school children and 436 pre-school children were fully examined. The School Medical Officer also interviewed 124 infants and toddlers and acted as an adviser to the Canberra Mothercraft Society.

§ 4. Inspection of Food and Drugs for Sale.

Public health legislation in force in all States provides for the inspection of foods and drugs with the object of ensuring that all goods 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. Public Health Legislation and Administration, page 513.

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

Earlier issues of the Official Year Book (see No. 22, p. 498), refer to the legislation in orce in the various States to ensure the purity of dairy produce.

§ 6. Disposal of the Dead by Cremation.

The first crematorium in Australia was opened in South Australia in 1903. At 31st December, 1957, there were fifteen crematoria in Australia, situated as follows:—

CREMATORIA, 31st DECEMBER, 1957.

New South Wale	es					6
Victoria						2
Queensland						2
South Australia						. 2
Western Australi	ia					1
Tasmania		• •	• •	• •	• •	2
						_
Anetr	alia					15

There is no crematorium in the Northern Territory or the Australian Capital Territory.

The following table shows the number of cremations in each State for each of the years 1953 to 1957:—

CREMATIONS.

	Year.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1953 1954 1955 1956 1957		:-	10,556 10,962 11,128 12,358 12,189	5,513 5,593 6,119 6,733 6,849	2,723 2,879 2,993 3,341 3,250	(a) 348 (a) 309 431 514 539	924 1,007 1,169 1,201 1,239	538 573 549 551 688	20,602 21,323 22,389 24,698 24,754

(a) Year ended 30th June of year shown.

B. COMMONWEALTH GOVERNMENT ACTIVITIES.

§ 1. General.

At the time of federation, the only health function given to the Commonwealth Government under the Constitution was the power to make laws with respect to quarantine. All other health powers remained with the State Governments. Under this power, the systems of State quarantine formerly in operation were abolished with the passing of the Quarantine Act 1908 and a branch of the Department of Trade and Customs, under the control of a Director of Quarantine, was created on the 1st July, 1909.

The Commonwealth Department of Health was formed in 1921 by the extension and development of the quarantine service, the Director of Quarantine becoming the Director-General of Health. It had certain other functions in the field of public health. An amendment to the Constitution in 1946 gave the Commonwealth power to make laws with respect to pharmaceutical, hospital and sickness benefits, and medical and dental services. In addition, the Commonwealth Government has used its powers under Section 96 of the Constitution to make grants to the States for health purposes.

§ 2. National Health Benefits.

1. Pharmaceutical Benefits.—Since September, 1950, under the provisions of the Pharmaceutical Benefits Act 1947–1952 and the National Health Act 1953–1957, certain life-saving and disease-preventing drugs have been provided free of charge to the general community. These drugs are supplied free if they have been prescribed by a doctor registered in Australia.

The number of drugs listed as available as general pharmaceutical benefits has steadily increased. At 30th June, 1957, 230 separate preparations were supplied. Before a drug is listed as being available, it must be approved by the Pharmaceutical Benefits Advisory Committee, a body appointed by the Minister for Health.

All drugs listed in the British Pharmacopoeia, and other drugs as specified, are supplied free to persons who benefit under the pensioner medical service (see § 2. 5, page 524).

Total expenditure on pharmaceutical benefits in the year 1956-57 was £11,716,825.

2. Hospital Benefits.—The payment of hospital benefits to the States is authorized under Part V. of the National Health Act 1953-1957. This Act continues the agreements entered into with the various States under the Hospital Benefits Act 1951. Under these agreements, the Commonwealth pays the States certain sums of money which vary according to the number of occupied beds in public hospitals and the status of patients.

Payment of 12s. per day is made for a patient who is a pensioner or a dependant of a pensioner. The rate of 8s. per day is paid for all other qualified patients. A payment of 8s. per day is made also for patients in approved private hospitals. This payment is made to the proprietor of the private hospital. A condition of the benefit is that an equivalent amount has been allowed against the patient's account.

Commonwealth additional benefit is paid in the case of patients who are members of a registered hospital benefit organization. The additional benefit is payable at the rate of 4s. per day if a person contributes for a fund benefit of at least 6s. per day, but less than 16s. per day, and at the rate of 12s. per day if a person contributes for a fund benefit of at least 16s. per day. Payment of the additional benefit is made through the benefit organization and the patient normally receives it with the amount of fund benefit payable by the organization.

Australian residents who are temporarily living overseas and their dependants who receive hospital treatment are eligible to receive the benefit of 8s. a day and the additional benefit to which they are entitled.

Expenditure on hospital benefits in 1956-57 was £9,813,283. This does not include expenditure on mental hospitals (see para. 3, below).

The following table shows the number of registered organizations, the membership thereof, and payments of Commonwealth benefits and hospital fund benefits on account of occupied beds in public and approved private hospitals. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefits schemes is considerably higher than the number of members. Reliable figures for coverage are not available.

HOSPITAL BENEFITS: SUMMARY 1954-55 to 1956-57.

1. Ordinary Benefits (a). Payable to Hospitals in respect of all occupied beds. (£.)

			_						
Year Ended 30th June.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Territories and Overseas.	Aus- tralia.
1955 1956 1957		3,160,551 3,112,037 3,065,921	1,835,000 1,896,789 1,920,075	1,308,000	665,000		246,020 255,668 264,227	58,757	

(2) Ordinary benefits are payable in respect of :—(i) Beds occupied by pensioners in public hospitals (12s. a day); (ii) Beds occupied in certain South Australian hospitals (12s. a day); and (iii) Other occupied beds in public hospitals and approved private hospitals (8s. a day).

2. Additional Benefits (a) Payable through Benefit Organizations.

YEAR ENDED 30TH JUNE, 1957.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.(b)
Registered Organizations No. Members No. Commonwealth Benefit £ Fund Benefit . £	28 1,026,103 980,613 4,258,485	53 648,380 438,652 876,671	217,937 86,868 581,237	15 198,690 100,398 473,455	13 193,527 177,875 489,378	10 88,825 55,714 332,829	1,840,120

- (a) An additional benefit of 4s, a day is payable to registered hospital benefit organizations for persons (a) An additional deficient of 43, a day is payable to registered hospital benefit organizations for persons who contribute for a fund benefit of at least 16s. a day.

 (b) No hospital benefit organization is registered in the Northern Territory or the Australian Capital Territory. Persons who live in one of these territories, or who are overseas, receive their fund benefit from an organization, and their Commonwealth benefit through an organization, which is registered in one of the States.
- 3. Mental Hospitals. In 1946, when Commonwealth hospital benefits were introduced for patients in public hospitals, no provision was made for patients in mental hospitals. To help meet the cost of maintaining patients in mental hospitals, the Commonwealth parliament passed the Mental Institutions Benefits Act 1948. This Act ratified agreements with the States whereunder it was provided that:-
 - (a) the Commonwealth would pay the States a benefit equal to the amount being collected by the States from the relatives of patients in mental hospitals by way of charges for maintenance; and
- (b) the States would cease making charges for the maintenance of mental patients. These agreements operated for five years, and terminated in the latter half of 1954. The amount contributed by the Commonwealth during the operation of the agreements was approximately one shilling a day for each patient. When the agreements terminated, Dr. Alan Stoller, of the Victorian Mental Health Authority, was commissioned to undertake a survey on mental health facilities and needs in Australia. His report was released in May, 1955. The report stated that serious overcrowding existed in the majority of mental hospitals in Australia. The provision of more beds was the most urgent need, but other accommodation and rehabilitation facilities were also required. The immediate shortage of accommodation could be made good only by the provision of 10,000 beds at a cost of £3,000 each. This meant the immediate expenditure of £30 million.

On receipt of the report, the Commonwealth Government proposed a new arrangement with the State Governments. It offered to find £10 million on the basis that the State Governments would find £2 for every £1 contributed by the Commonwealth Government. In effect, therefore, the Commonwealth Government offered to find one-third of the £30 million required.

The following table sets out the amounts which have been paid to the State Governments

by the Commonwealth Government.

EXPENDITURE ON MENTAL INSTITUTIONS BY THE COMMONWEALTH GOVERNMENT.

				(2.)					
Year.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.	
1949–50		97,035	108,239		32,751	8,528	9,033	255,586	
19 50 –51		198,165	146,728		34,368	17,225	9,178	405,664	
1951-52		203,505	149,384	102,697	35,300	17,527 '	9,367	517,780	
1952-53		208,888	151,227	98,820	36,075	17,723 :	9,819	522,552	
1953-54		209,772	156,752	62,413	37,370	18,280	10,246	494,833	
1954-55		106,525	53,820	36,460	15,871	9,453	3,457	225,586	
1955-56		208,763	445,747	66,588	12,245	9,984	29,822	773,149	
1956-57		383,555	527,213	88,068	128,467	51,855	68,974	1,248,132	
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Amounts shown in the foregoing table in respect of the years up to and including 1954-55 represent payments made under the Mental Institutions Benefits Act 1948. Amounts shown in respect of 1955-56 and 1956-57 represent payments made during the year shown under the States Grants (Mental Institutions) Act 1955. The total amounts payable to each State government under the last-mentioned Act are as follows:—

Tasmania	• •	• •	• •			355,000
South Australia Western Australia	• ••		• •	• •		895,000 720,000
Victoria Oueensland		• •	• •		• •	2,740,000 1,460,000
New South Wales						3,830,000

There is no mental hospital in the Northern Territory or the Australian Capital Territory.

4. Medical Benefits.—A medical benefits scheme has operated since July, 1953, being authorized firstly by the National Health (Medical Benefits) Regulations and then by the National Health Act 1953.

The basic principle of the scheme is Commonwealth support of voluntary insurance against the costs of medical attention. The benefits payable by the Commonwealth are paid either on a fee-for-service basis in respect of the items set out in the first and second schedules to the National Health Act, or in the form of a subsidy, not exceeding half of the payments made to doctors by registered organizations under contract arrangements.

In order to qualify for the Commonwealth benefit, a person is required to be insured with a registered medical benefits organization. The organization pays the benefits to the contributor usually at the time it pays its own benefits. Reimbursement of the Commonwealth benefit is subsequently made to the organization by the Commonwealth.

An organization wishing to be registered by the Commonwealth for the purposes of the medical benefits scheme is required to provide to its contributors, subject to its rules, all benefits specified in the first schedule, at rates not less than those provided by the Commonwealth. The organization must be non-profit-making.

In 1956-57, Commonwealth expenditure on medical benefits was £6,146,029.

The following table shows the number of registered medical benefit organizations, their membership, the number of medical services rendered to members and their dependants, and payments of Commonwealth benefits and medical fund benefits to members of registered organizations. As many persons contribute on behalf of both themselves and

their dependants, the total number of persons covered by medical benefit schemes is considerably higher than the number of contributors. Reliable figures for coverage are not available.

MEDICAL	BENEFITS:	SUMMARY,	YEAR E	NDED 3	Oth JUNE	, 1957.
Dostionless	New	Via Oil	and S A	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Augt T	Austr

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Registered Organizations No. Members Medical Services No. Commonwealth Benefit Fund Benefit £	25 1,004,510 5,968,340 2,715,955 3,428,933	3,228,342 1,433,579	1,518,790 665,396	1,306,124 589,975	1,325,646		2,228,594 13,667,766 6,146,029

- (a) No medical benefit organization is registered in the Northern Territory or the Australian Capital Territory. Persons who live in one of those territories, or who are overseas, receive their fund benefit from an organization, and their Commonwealth benefit through an organization, which is registered in one of the States.
- 5. 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 made under the provisions of the National Health Service Act 1948–1949. The service has been continued under the provisions of the National Health Act 1953–1957.

The service covers pensioners, and dependants of pensioners, who either were receiving an age, invalid, widow's or service pension before the 1st November, 1955, or would not have been debarred by reason of their income from receiving a pension at the maximum rate under the Social Services Consolidation Act 1947-1953 or the Repatriation Act 1920-1953. Broadly, this means pensioners whose income from sources other than their pension is not more than £104 a year (£2 a week). However, pensioners who were benefiting under the scheme before the additional means test was imposed continue to benefit. Beneficiaries of the scheme are provided with a free general practitioner service, but not with specialist services. A small fee may be charged by doctors who attend patients outside normal surgery or visiting hours. Doctors in the scheme are paid on a fee-for-service basis by the Commonwealth Government.

At 30th June, 1957, 4,990 doctors were enrolled in the scheme to attend to approximately 683,850 pensioners and their dependants.

During the year ended 30th June, 1957, doctors in the scheme performed 5,381,108 services—visits and surgery consultations—for persons enrolled in the scheme. For these services they were paid £5,962,403. The average number of services rendered by doctors to each person was 7.9.

6. Anti-Tuberculosis Campaign.—The main provisions of the Tuberculosis Act 1948 are as follows:—(a) Section 5 authorizes the Commonwealth to enter into an arrangement with the States for a national campaign against tuberculosis; (b) Section 6 empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis; (c) Section 8 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 authorizes the Commonwealth to pay allowances to sufferers from tuberculosis and their dependants.

Under an arrangement with the Commonwealth Government, each State is required to conduct a campaign against tuberculosis. The Commonwealth Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds net maintenance expenditure for the year 1947-48. Thus, the States are required to carry out the physical or field work of the national campaign and the Commonwealth acts 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 held seven 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.

To help reduce the spread of infection, the Commonwealth Government pays living allowances to persons suffering from tuberculosis, so that they might give up work and undergo treatment. These allowances have been in operation since 13th July, 1950. Since 24th October, 1957, the rates payable have been:

Married sufferer with a dependent wife £10 7s. 6d. a week.
Each dependent child under the age of 10s. a week (additional to child endowsixteen years

Sufferer without dependants ...

ment)

.. £6 10s. a week (reducible to £4 7s. 6d. a week if a person is maintained free of charge in an institution).

There is a means test on income but not on property. The allowance is reduced by the amount by which a person's income from sources other than his allowance exceeds, in the case of a married person, £7 a week, and in the case of a person without a dependent wife, £3 10s. a week.

The following table gives particulars of the number of new cases of tuberculosis notified in Australia for the year 1956-57.

TUBERCULOSIS: NEW CASES NOTIFIED, YEAR ENDED 30TH JUNE, 1957.

_		Age Group.							
State.		0-14.	15-34.	35–54.	55 and over.	Not Stated.	Total.		
New South Wales		66	423	623	480	9	1,601		
Victoria		75	262	278	190	9 5 2	810		
Oueensland		44	151	202	230	2	629		
South Australia		34	135	109	71		349		
Western Australia		22	102	187	153	3	467		
Tasmania		25	62	66	55		208		
Northern Territory		8	23	12	13	1	57		
Australian Capital	Terri-	1	1	ł	1	}			
tory	••	1	7	2	1	• •	11		
Australia		275	1,165	1,479	1,193	20	4,132		

The following table sets out expenditure by the Commonwealth Government during 1956-57 on its anti-tuberculosis campaign.

ANTI-TUBERCULOSIS CAMPAIGN: EXPENDITURE BY THE COMMONWEALTH GOVERNMENT, 1956-57.

(£.)

State.			Allowances.	Maintenance.	Capital.	Total.
New South Wales Victoria Queensland South Australia			527,161 361,303 244,186 158,401	1,607,000 1,091,456 1,080,232 319,045	989,576 120,056 671,778 89,426	3,123,737 1,572,815 1,996,196 566,872
Western Australia Tasmania	• •	••	91,545 78,055	469,945 171,087	503,977 6,397	1,065,467 255,539
Northern Territory Australian Capital Te	rritory		• • •	16,000	••	16,000
Australia			1,460,651	4,754,765	2,381,210	8,596,626

The following table sets out expenditure by the Commonwealth Government on its anti-tuberculosis campaign since the start of the campaign.

ANTI-TUBERCULOSIS CAMPAIGN: EXPENDITURE BY THE COMMONWEALTH GOVERNMENT 1947-48 TO 1956-57.

(£.)

_	Year	:	Allowances.	Maintenance.	Capital.	Total.
1947-48			 27,590			27,590
1948-49			 151,079	i		151,079
1949~50			 534,550		236,179	770,729
1950-51			 1,344,891	930,508	407,350	2,682,749
1951–52			 1,777,620	2,101,307	734,227	4,613,154
1952-53			 1,907,945	2,968,012	1,292,332	6,168,289
1953-54			 1,876,581	3,703,067	1,379,482	6,959,130
19 54- 55			 1,904,467	3,752,856	1,709,405	7,366,728
1955–56			 1,689,774	4,006,869	1,757,612	7,454,255
1956–57			 1,460,651	4,754,765	2,381,210	8,596,626

7. Anti-Poliomyelitis Campaign.—The success of the 1954 United States field trials of the poliomyelitis vaccine developed by Dr. Jonas Salk and his associates at the University of Pittsburg was announced in April, 1955. The Commonwealth Government immediately decided to produce the anti-polio vaccine in Australia.

With the advantage of the experience of the campaigns in the United States and Canada, Australia has adopted a vaccine which has already been proved to be safe and effective in building up immunity against poliomyelitis.

The vaccine was being produced in Australia by the end of 1955 under the most rigid safety conditions. Plans were made for comprehensive testing procedures to be carried out at many stages both during the production process and with the finished product. These tests ensured the maintenance of safety standards no less rigid that those laid down in other countries where vaccination campaigns were in progress. The Research Laboratory at the Fairfield Hospital, Melbourne, agreed to act as an independent testing authority under an arrangement with the Commonwealth Government, and the pathology department of the University of Melbourne also agreed to conduct tests. No vaccine was released for use unless the searching requirements of the Commonwealth Serum Laboratories, the Fairfield Hospital, and the University of Melbourne were met.

The vaccine was supplied to the States free of charge and the States accepted responsibility for the cost of their particular vaccination programmes. No child can be vaccinated without the consent of his parents or guardian.

Distribution of the Salk poliomyelitis vaccine to the States began in July, 1956. The States are responsible for the organization and running of their own campaigns and for the distribution of the vaccine in accordance with priority groups established by the National Health and Medical Research Council. The first priority group consists of children in the 0-14 age group, expectant mothers, and persons subjected to special risk. These persons have been found to be the most vulnerable.

Vaccination against poliomyelitis takes the form of three injections of the vaccine. The second injection is given approximately four weeks after the first, and the third injection is given not less than 32 weeks after the first.

Where the incidence of the disease in certain areas approaches epidemic proportions, special efforts have been made to vaccinate all persons giving their consent in the area as soon as possible.

There has been excellent response by the public to the poliomyelitis campaign, notwithstanding the widespread doubts which arose from mishaps overseas.

POLIOMYELITIS: NEW CASES NOTIFIED.

	Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
					Males					,
1952 1953 1954 1955 1956		239 384 343 143 149	183 147 317 145 137	85 105 81 95 60	385 191 88 91 63	21 25 244 15 177	66 62 8 4 34	i 	1 1 17 1 6	980 916 1098 498 626
		·			FEMALE	s.				
1952 1953 1954 1955 1956		176 251 219 75 86	152 104 255 90 114	74 93 59 80 46	324 201 86 81 54	16 20 190 18 224	34 49 2 4 21		 9 	776 718 820 348 550
					Persons	3.			<u>.</u>	
1952 1953 1954 1955 1956		415 635 562 218 235	335 251 572 235 251	159 198 140 175 106	709 392 174 172 117	37 45 434 33 401	100 111 10 8 55	'i ': '4	1 1 26 1 11	1,756 1,634 1,918 846 1,176

8. Free Milk for School Children Scheme.—In 1950, the States Grants (Milk for School Children) Act was passed. The object 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 private primary schools, including nursery schools, kindergartens, crèches and aboriginal missions, are eligible to receive this issue. Wherever practicable, the milk is given to the children in one-third of a pint bottles. The cost of the milk plus half the capital or incidental costs, including administrative expenses of the scheme, is reimbursed by the Commonwealth to the States. All States now participate in the scheme. At 30th June, 1957, approximately 1,100,000 children were receiving free milk.

Expenditure by the Commonwealth Government under the scheme since its inception has been as follows:—

COMMONWEALTH EXPENDITURE ON NUTRITION OF SCHOOL CHILDREN,

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Australia.
1950–51 1951–52 1952–53 1953–54 1954–55 1955–56	35,683 440,316 701,448 881,600 980,589 1,042,173 1,094,469	140,000 433,766 429,000 498,000 540,000 600,901	55,000 204,600 323,340 308,000 386,999	74,642 175,400 156,000 156,000 184,000 200,000	67,480 92,996 107,138 127,015 137,211 158,659	90,390 60,000 219,580 145,695 185,000 156,275	158 233 552 921 1,016 1,323	92 3,989 5,261 6,891 10,760 14,048 16,146	35,775 816,975 1,524,104 2,005,361 2,242,320 2,411,448 2,614,772

The figures in the foregoing table differ slightly from those in the table shown in Chapter XV., Welfare Services (p. 546), since they include capital and administrative costs. Figures in the latter table represent only expenditure which is a charge on the National Welfare Fund (i.e., the cost of the milk).

§ 3. Commonwealth Laboratories and Research Institutions.

1. 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 the Commonwealth and State Health Authorities". This council held sessions

each year except in 1932. In 1936, the Commonwealth Government decided to create a har 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 on the expenditure of money specifically appropriated to be spent on the advice of this Council.
- To advise the Commonwealth Government on the expenditure of money upon medical research and on projects of medical research generally.
- To advise Commonwealth and State Governments upon the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The council consists of the Commonwealth Director-General of Health (as chairman), two officers of his department, the official head of the Health Department in each State, together with representatives of the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Royal Australasian College of Physicians, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the Australian Dental Association, the Australian Council of the College of General Practitioners, the College of Pathologists of Australia and (jointly) the five 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 was held at Hobart in February, 1937. The forty-third session was held at Melbourne in May, 1957.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of funds to assist:—(a) departments of the Commonwealth or of a State engaged in medical research; (b) universities for the purpose of medical research; (c) 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 1955, grants for projects numbered 50 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 on such subjects as industrial hygiene, public health, epidemiology, maternal and child welfare, radio-active isotopes, antibiotic distribution, tropical physiology and hygiene, tuberculosis, staphylococcus infections, dentistry 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 reputations. 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.

Four scholarships are available each year to allow overseas study for one year; in addition. assistance is often given to scholarship-holders to cover part of their travel expenses.

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

2. Commonwealth Serum Laboratories.—The Laboratories were established in 1916 under the administration of the Department of Trade and Customs and since 1921 have operated under the Department of Health. Buildings occupy a site of 23 acres at Royal Park, Melbourne, and a farm of 325 acres is situated at Broadmeadows nine miles from

Their basic function is to ensure the supply of essential biological products to the Commonwealth in line with its national health needs. This includes-

- (a) Production and supply of biological products not otherwise freely available in Australia because of the absence of local manufacturers or because of difficulties associated in importing biological products and marketing them in satisfactory condition. (Many biological products deteriorate quickly.)
 (b) Research and development directed towards the improvement of essential
- biological products or for their introduction.

Since their foundation, the Laboratories have greatly extended in size and scope. They now produce some 4,000 different biological products for use in the diagnosis, prevention and treatment of human and animal diseases. Professional, technical and other staff totals approximately 900.

Products comprise a full range of human bacterial and virus vaccines, veterinary bacterial and virus vaccines, serum products such as blood fractions, a wide variety of antibacterial and antitoxic sera, antivenenes, penicillin, endocrines, including insulin, A.C.T.H., pituitary and thyroid extracts, allergy test materials and desensitizing preparations, culture media and diagnostic agents for clinical and laboratory work.

Continuous research is conducted into the relevant aspects of bacteriology and immunology, and related fields. As the growth of medical and scientific knowledge in Australia and overseas reveals new methods of diagnosis, prevention and treatment of diseases, this information is applied to the preparation of new biological products at the Laboratories, the most recent being the production of poliomyelitis (Salk) vaccine.

Facilities are maintained for investigation in relation to public health matters which it is inconvenient or impracticable to handle at the Commonwealth Health Laboratories or the School of Public Health and Tropical Medicine.

The Laboratories serve as a national centre for the maintenance in Australia of International Standards of the Permanent Commission on Biological Standards (World Health Organization). They act as a regional reference centre for W.H.O. in collating reports of the prevalence of certain infectious diseases and provide facilities for the identification of diseases.

Veterinary biological products produced at the Laboratories have given the lead to other producers in Australia, resulting in the diminution of incidence of a number of serious infectious stock diseases.

3. The Commonwealth Health Laboratories. Health Laboratories, of which there are fourteen, are situated in the following towns: Albury, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. They were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide doctors 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, is essential to the investigation and control of disease.

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 in 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 previously 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 School of Public Health and Tropical Medicine, Sydney.

4. Commonwealth Acoustic Laboratories. During the years 1942-46 the Acoustic Research Laboratory at Sydney, which was sponsored by the National Health and Medical Research Council, investigated problems of noise and difficulties of intercommunication in aircraft and tanks. In subsequent years it directed its attention to the problem of deafness in children, particularly the group whose affliction was caused by the mother's contracting rubella in the early months of pregnancy. In January, 1947, the Department of Health took over the laboratory. Subsequently it established branch laboratories in all other State capital cities.

The Acoustic Laboratories Act 1948 allowed the Laboratories to:—(1) provide hearingaids for the Repatriation Commission and the Department of Social Services; (2) assist the Education Departments of the States in measuring deafness, by providing and maintaining portable audiometric equipment; (3) make independent tests on behalf of various State and other authorities; (4) investigate problems associated with noise in industry; (5) make hearing tests of Civil Aviation aircrew as required by international agreement; (6) give advice to the armed services on noise problems; and (7) provide hearing aids to schoolchildren and members of the defence forces as required. 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 X-ray and Radium Laboratory. 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. Annual cancer conferences, convened by the Department from 1928 up to the beginning of the 1939-45 War, provided an opportunity each year for those engaged in the campaign against the disease to meet for the discussion of problems and the determination of lines of action for further development.

Cancer conferences were not held during the war and have not been revived, primarily because facilities for the discussion of the various aspects of the treatment of cancer have been provided by the regular congresses of the British Medical Association and of the different specialist colleges and associations. The Department has, however, continued to maintain liaison in the general programme against cancer and in March, 1955, convened a conference in Canberra of representatives of the Commonwealth and States to discuss the co-ordination of anti-cancer activities. This conference recommended that an annual conference of State-sponsored anti-cancer organizations should be convened by the Commonwealth Government and that consideration should be given to the formation of a nation-wide Anti-cancer Organization comprising representatives of the statutory Anti-cancer Organizations.

A total of 10 grams 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 persons requiring it, irrespective of their ability to pay. This work is co-ordinated by the Department. From time to time, portions of the original radium holding have been remounted by the Department in forms more suitable for recently developed techniques.

Realizing the importance of accuracy in determining the quality of radiation used in the treatment of cancer and in measuring the dosage of this radiation 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 maintained, controlled, and staffed by the Commonwealth Department of Health. It is situated, by agreement with the University of Melbourne, within the University grounds. On 4th March, 1957, it also established offices at Surry Place, Melbourne. It is specially designed for work with X-ray and radium, and is amply provided with all necessary equipment for research work, including a 500,000 volt high-tension generator. The free-air chamber which acts as the Australian standard X-ray dosemeter is maintained in the Laboratory.

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. It also undertakes investigations into physical problems arising in the use of X-rays and radium in treatment. In recent years, the Laboratory has widened its functions to include investigations of the physical aspects of the diagnostic use of X-rays with particular emphasis on miniature radiography.

During the year 1956-57, a total of 88,393 millicuries of radon was prepared and issued from the Laboratory in the form of implants, needles and tubes for use in Victoria, Tasmania, South Australia and Western Australia. A further 27,209 millicuries were issued by the associated centres in Sydney and Brisbane. The corresponding figures for 1955-56 were 91,353 and 28,777 millicuries respectively. The issue of radon from a few centres to serve hospitals all over the continent is an Australian development and enables very efficient use to be made of the radium available.

Supplies of artificial radio-isotopes have been made available through the development of atomic energy programmes overseas. The radio-isotopes can be used medically either as an alternative to natural radio-active materials such as radium and radon, or they may be administered orally or intravenously to patients, in which case the selective up-take by a particular organ or tissue may be used to determine its condition. In addition, radio-isotopes have great potential in industry, in production control, the investigation of the efficiency of processes and as research tools.

The importation of artificial radio-isotopes is restricted under Customs (Prohibited Imports) Regulations, approval for importation being given through the Laboratory by the Director-General of Health after it has been established that the isotope will be used safely and usefully. Isotopes used in Australia are obtained from Great Britain, Canada and the United States of America, and are imported through the Laboratory.

During 1956-57, 41 different radio-isotopes were imported for all purposes. This

represented 431 separate deliveries from oversea sources of supply.

Regular bulk supplies of radio-isotopes for medical purposes are obtained and these are distributed by the Laboratory as individual doses for use on patients throughout Australia according to a policy developed by the Committee on Radio-isotopes of the National Health and Medical Research Council. These radio-isotopes are issued free of charge.

Nine different radio-isotopes were imported in the year 1956-57 for medical purposes, radio-iodine, radio-phosphorus and radio-gold being in greatest demand. However, during 1956-57 an increasing use was made of radio-chromium and radio-iron as labelled compounds in haematological investigations and of radio-cobalt labelled vitamin B12 and radio-iodinated human serum albumin. Since only relatively small activities of these radio-isotopes are used per patient investigated, the total number of activities issued during the year is small. The increased use of these radio-isotopes is illustrated by the use of radio-chromium which was issued for 96 patients in 1955-56 and for 990 patients in 1956-57.

In all approximately 6,000 individual doses of radio-isotopes were issued by the Labora-

tory during 1956-57 for use on patients.

The use of radio-isotopes in research and industry is also steadily increasing.

Investigations of the degree of protection necessary in particular applications of X-rays and radio-active materials continue to be an important activity of the Laboratory. It prepares specifications of the protection facilities necessary in departments and laboratories employing ionizing radiation in medicine, research and industry and carries out measurements of radiation levels in existing departments and laboratories. An extensive film badge service to measure the radiation dose received by those exposed to ionizing radiation is maintained. In 1956-57, 12,548 film badges were processed and assessed. The corresponding figure for 1955-56 was 9,977 films.

The Laboratory has an extensive library of special radiological literature and issues regular library bulletins. Through its advisory service the Laboratory is available for consultation to all users of ionizing radiation. Technical communications on topics related to its functions are issued from time to time to medical men engaged in the clinical investigation and treatment of cancer and to research workers and those in industry interested in applications of radiation.

6. The School of Public Health and Tropical Medicine.—In March, 1930, 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 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, lay officers and nurses in the tropical services, and missionaries. Training is also provided for certain personnel of the armed services, for sister tutors and for laboratory workers from various services and institutions.

Investigation covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out in Australia and in Papua, New Guinea, Norfolk Island and Nauru in co-operation with the local administrations and the South Pacific Commission. Sections of Child Health, Occupational Health and Medical statistics have been recently added.

7. Commonwealth Bureau of Dental Standards.—This laboratory is concerned with research, standards and testing related to dental and allied materials and processes. It became part of the Department of Health in January, 1947, but for the preceding eight years it was sponsored by the National Health and Medical Research Council. During that time the former Dental Materials Research Laboratory established itself as a recognised authority in its special field and proved to be of particular value to the defence services, government departments, the dental profession and manufacturers of dental products. By maintaining the quality of dental materials and improving techniques for their use, the Bureau continues to assist the dentist in his service to the community—a service that calls for restorations and appliances of a high degree of precision and permanence under very exacting conditions.

The functions of the Bureau are: (1) original research into dental equipment, materials, techniques and processes; (2) regular reporting of the results of these investigations in recognized Australian scientific journals; (3) the development through the Standards Association of Australia, in consultation with a committee representing the Commonwealth Department of Health, the Australian Dental Association and manufacturers and distributors, of specifications for dental materials and equipment; and (4) the provision of a consultative service and testing facilities for manufacturers and distributors of dental materials with a view to assisting them in the improvement of existing products and the development of new materials.

8. The Australian Institute of Anatomy. The Australian Institute of Anatomy, situated in Canberra, occupies a monumental building erected by the Commonwealth Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Commonwealth Government had expressed regret that the Australian nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a museum in which such specimens could be preserved for future generations. Sir Colin MacKenzie, the first Director of the Institute of Anatomy, presented his entire private collection of Australian fauna to the Commonwealth Government. This gift was housed in the Australian Institute of Anatomy. The Institute became part of the Commonwealth Department of Health in 1931.

The original collection has been greatly augmented. A list of gifts to the Australian nation may be found in Official Year Book No. 39, p. 1277. In addition to these donations of material, there have been several endowments for orations and lectures, particulars of which are shown in previous issues of the Official Year Book.

The Institute consists of a museum section and a laboratory section. In the museum section, which is open to the public, is displayed a portion of the original collection of anatomical specimens assembled by Sir Colin MacKenzie, together with ethnological collections which have been added since the foundation of the Institute. The material has been arranged to present simple lessons in human hygiene, to display the anatomical features and peculiarities of Australian fauna, and to display aspects of the character of Australian aboriginals and natives of Papua and New Guinea.

A number of Health Department sections are now situated in the Institute. These include the Museum and Medical Artistry Section, the Nutrition Section, the Commonwealth Health Laboratory for the Australian Capital Territory and the Veterinary Laboratory.

The scientific research work of the Institute is now concentrated on problems of nutrition. It takes the form of field surveys of the dietary status of the Australian population and laboratory investigations into the biochemistry of nutrition and metabolism. For further information concerning the Institute see Official Year Book No. 32, pp. 919-21.

§ 4. Control of Infectious and Contagious Diseases.

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

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth 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.

(i) Human Quarantine. All passengers and crews arriving in Australia from overseas, whether by air or sea, are subjected to a medical inspection by quarantine officers for the purpose of preventing the introduction of disease into Australia. At the major ports, full-time quarantine officers carry out the work but in the minor ports local doctors act as part-time quarantine officers. In each State, quarantine activities are controlled by a medical officer of the Commonwealth Department of Health with the title of Commonwealth Director of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague and typhus fever. These diseases are not endemic infAustralia and it is a matter of extreme moment to prevent their entry. Quarantine stations at the major ports and at Darwin, Thursday Island and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken pox, mumps, scarlet fever and measles are directed to appropriate care and placed in isolation where necessary.

The increasing use of air travel has created particular quarantine problems. Before the use of air transport, persons suffering from an infectious or quarantinable disease would show symptoms on arrival and before disembarkation. Passengers travelling by air however can arrive well within the incubation period, and they are, therefore, required to be vaccinated against smallpox before departure. Those from an area infected with cholera or yellow fever are required to be inoculated in addition against the particular disease prevalent in that area. They are also required to report any sickness which they might suffer within the fourteen days after arrival. All passengers, whether they arrive by sea or air, are required to give their intended place of residence so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

The number of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of oversea vessels and aircraft calling at Australian ports during the year ended 30th June, 1957, and during the preceding four years, are shown in the following tables.

HUMAN QUARANTINE: CASES OF INFECTIOUS (NON-QUARANTINABLE)
DISEASES ON OVERSEA VESSELS AND AIRCRAFT CALLING AT
AUSTRALIAN PORTS, YEAR ENDED 30th JUNE, 1957.

	τ.	Disease.			Number of Oversea Vessels and Aircraft on	Number of Cases of Infectious Disease.		
		Jiscase.			which Cases were Found.	Passengers.	Crew.	
Chicken F	ox				23	44		
Influenza					2	2	9	
Measles					30	146	1	
Mumps					4	6		
Rubelia					3	11		
Whooping	g Cough	• •	• •	• •	3	7	• •	
Tot	tal				(a) 53	216	10	

⁽a) On some vessels there may be cases of more than one disease.

HUMAN QUARANTINE: OVERSEA VESSELS AND AIRCRAFT ARRIVING IN AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASE FOUND THEREON.

Year e	ended 30s	h June.		versea Vessels aft Cleared.	Number of Oversea Vessels and Aircraft	Number of Cases of Infectious Disease.		
			Ships.	Aircraft.	on which Cases were Found.	Passengers.	Crew.	
1953			2,231	1,173	54	365	7	
1954			2,254	1,221	44	319	5	
1955			2,319	1,310	48	267	3	
1956			2,592	1,417	26	104	4	
1957		/	2,702	1,747	53	216	10	

(ii) Animal Quarantine. Animal quarantine, authorized by the provisions of the Quarantine Act 1908-1950, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures 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 these premises are kept under constant surveillance. Raw animal products such as hair, special types of wool, skins and hides, are specially treated 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, and ship's refuse, are treated to destroy any possible infection.

The Division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine; formerly the full responsibility for this administration fell on 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. 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 carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in 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 quarantine control of imports, there is a close liaison with the Department of Customs and Excise.

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 and straw being the subject of combined control.

In each alternate year, the Director of the Division convenes the Biennial Conference of Principal Commonwealth and State Veterinarians which meets under the aegis of the Australian Agricultural Council to discuss problems of animal health and disease control and animal quarantine.

In the Australian Capital Territory veterinary officers of the division exercise control over animal disease, dairy and piggery hygiene, manage the Canberra abattoir and give advice to stockowners.

(iii) 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, quarantine inspectors are required to examine all plant material at the first port of entry and to release only material free from diseases and pests. Everyone entering 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 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. The cost of treatment is met by the importer. Regulations governing the different types of plants are based on the following broad principles:—(a) The importation

of plants likely to be infected with plant diseases, noxious fungi or poison plants is prohibited; (b) Agricultural seed must conform to standards of purity, insect pest and disease freedom; (c) Many commodities such as hops, cotton, peanuts in shell, nursery stock, potatoes, certain crop seeds, vines and specified plants may be imported only by approved importers under special conditions; (d) Certain plant products such as bulbs and timber (in logs or sawn) from specified areas may be imported only if accompanied by certificates showing that prescribed treatment has been given in the country of origin.

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 of, and the compulsory notification of, infectious disease. When any such disease occurs, the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts, and on 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 1956 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 OF AUSTRALIA AND NUMBER OF CASES REPORTED DURING THE YEAR ENDED 31st DECEMBER, 1956.

Disease.		N.S.W	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Acute rheumatism		156	157	164	15	21	•	11	1	525
Amoebiasis			5	١	1	7			1	14
Ankylostomiasis:		22	2	343		1		66		445
Anthrax			1 1				1	١		1
Bilharziasis								1		٠
Brucellosis		1 12	18		3	3	1	1	:	37
Chorea		1 17	23	1	Ιĭ	ĭ	•	1	1	42
Dengue				• •	-	- 1	*	l	• • •	
Diarrhoea, infantile		270	652	173		48	. 1	i3	l8	1.165
Diphtheria		70	103	20		145	ż	ı î		348
Dysentery, bacillary			94	308	37	71	ī	25	• • •	536
Encephalitis	••	24	44	308	23	′2		-	; ··	104
Erythema Nodosum	• •	1 - 1	19	-	4	î	• •		••	25
Filariasis	• • • •			•••		3	••			1
	4:		1	,1	••	•••	• •	• • •	,	
Homologous serum jaun Hydatid	aice .	· I	12		•••	• • •	18	• • •		31
	• •	4.400			701	:		79	72	8,861
infective hepatitis	• •	4,435	3,056		791	181	247	/9	1 1	
ead poisoning	• •	• •		14	• •	13	•	*:.	! ••	27
eprosy			I .	1.	• •	34	• •	14		50
eptospirosis		22	3	199			•			224
Malaria			[[1	18		6		35	!	70
Meningococcal infection			142	44	12	13	36	3	2	364
Ophthalmia				*				5		. 5
Ornithosis		3	1 1				• !		· '	4
aratyphoid fever		4	3	1	1	1	13		1 1	21
oliomyelitis		240	251	112	122	401	55		13	1,194
uerperal fever		41	2	50	3	1	3	5	!	105
Rubella			1,681	19	800	85	1	20		2,606
almonella infection			-,,,,,,	• [26	27	*		2	55
carlet fever		574	681	257	249	57 I	20	5	14	1,857
etanus		•	7	36	5	15	•	Ĭ	1	64
rachoma			í i	*	- 1	280		154	l	435
richinosis	• • • • • • • • • • • • • • • • • • • •		• 1		•••			134		
3.4	• • • • • • • • • • • • • • • • • • • •	1,702	878	726	349	463	242	46	13	4.419
yphoid fever	• • • • • • • • • • • • • • • • • • • •	1,702	12	/20		403	1	2		44
ypholu lever yphus—flea, mite or ticl	• • • • • • • • • • • • • • • • • • • •	1.5	2	35	2	16	1	2	• • •	60

^{*} Not notifiable.

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 control of these diseases. Under these Acts, treatment has been made compulsory in every State. Consequent steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense only prescriptions 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.

§ 5. Commonwealth Grants to Organizations Associated with Public Health.

- 1. General.—In addition to providing the services mentioned in sections 1-4 above, the Commonwealth Government gives financial assistance to certain organizations associated with public health which it desires to encourage. Examples of organizations included in this category are the Lady Gowrie Child Centres, the National Fitness Organizations, the Royal Flying Doctor Service of Australia, and the Red Cross Blood Transfusion Service.
- · 2. Lady Gowrie Child Centres.—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 welfare of the school child and the care of the infant are already developed by State authorities as recorded in sections 2 and 3 of division A of this chapter (see pp. 516-520). 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 assisting in the provision of facilities for demonstrating what could be done and the practical methods which could be applied. It therefore established 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 secured the co-operation of the federal organization of Kindergarten Unions which operated 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. This organization has since been extended to include all pre-school organizations and its title has been changed to "The Australian Pre-school Association".

The Australian Pre-school Association administers the Lady Gowrie Child Centres for the Commonwealth Department of Health. An annual grant of £33,500 is received of which £29,850 is divided equally among six centres; £2,000 is allocated for the payment of salary and travelling for the Federal Pre-school Officer of the Association and £150 is a contribution to office expenses of the A.P.A. The Commonwealth Department of Health retains £1,500 for the maintenance of buildings.

The specialized function of the centres is that of demonstration and research and the programmes are carried out under the supervision of the Federal Officer. Each centre is concerned with a study of the factors promoting and retarding physical and mental health in young children, and in demonstrating an educational health programme based on the developing needs of children aged 3 to 6 years. Detailed case history records are kept for each child and these are discussed at weekly staff meetings of teachers, the sister, and the social worker, and form the basis for the guidance of child and parents. These records are available for approved research students.

The centres are used for observation by university students of Medicine, Psychology, Education, Social Studies, Architecture, Physical Education, Teacher Training Colleges, Nursing Colleges and Domestic Science. A number of research projects have been carried out into problems relating to the pre-school child.

In Sydney and Brisbane, the centres are used as a laboratory for a Social Paediatrics course for advanced medical students.

A research project at the Perth Centre is now in progress on "The Development of Concepts of Social Relations in Pre-school Children", under the direction of the University

of Western Australia. All centres are gathering material on possible stress in children—when (1) mothers are working outside the home, (2) mothers are in hospital, or (3) families are migrants.

In June, 1956, the Commonwealth Government made a grant of £3,000 to cover a two-year research study at the Sydney centre, under the supervision of the Institute of Child Health. Each centre has a committee of management responsible for the disbursement of funds.

3. National Fitness.—In 1938, arising from a recommendation of the National Health and Medical Research Council, the Commonwealth Government appointed 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. Following the recommendations of the first Commonwealth Council meeting in 1939, 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 June, 1942, this grant was increased to £72,500 to include grants to State Education Departments and for the work in the Australian Capital Territory.

Autonomous National Fitness Councils operating in each State are engaged in voluntary leader training, camping and hostelling, co-ordinating and promoting the work of amateur sports organizations, and providing advisory services to these organizations.

In some States, school camps are held as part of the regular school programmes. In Western Australia, a combined white and aboriginal children's camp has become a regular annual feature. Education departments spend their grant on physical education in schools and teachers' colleges. In New South Wales, the Education Department is providing high schools with pre-fabricated gymnasiums, and in Queensland 24 swimming pools have now been provided at schools.

A number of universities provide either a diploma course in physical education or a major course in physical education as part of a degree course.

An annual grant is made to sports and youth organizations in the Australian Capital Territory for the purchase of equipment, the development of coaching schemes, and the extension of club and camp facilities. In 1956, approval was given for the allocation, on a £1 for £1 basis, of £10,000 to the Y.M.C.A. from the accumulated balances of the A.C.T. National Fitness Fund for the erection of a central indoor recreation centre which will be for the use of all youth and sports organizations in the Australian Capital Territory.

4. Royal Flying Doctor Service of Australia.—The purpose of the Royal Flying Doctor Service of Australia is to provide medical and dental services to white and aboriginal persons in isolated areas. Most remote homesteads are equipped with two-way radio sets which they use for receiving ordinary radio programmes, participating in the School of the Air, and for contacting each other. In cases of minor illness or injury, they also use these sets to seek medical advice. If the illness or injury is serious, a doctor holding an aeroplane pilot's licence flies to the homestead and, if necessary, flies the patient to the nearest hospital. Standard medicine chests are supplied by the service. Each chest contains a first-aid book and instructions on the use of the various drugs and medical supplies in it. Further instructions are given by doctors over the air.

From time to time, special purpose work is undertaken in connexion with flood relief, searching for lost parties and co-ordinating cattle movements.

The service is not conducted with a view to profit. In some sections, small charges are made for particular services or a fixed annual charge is levied on graziers. Other sections rely on voluntary contributions from those who use their services. Donations and government contributions help to provide much of the overhead and capital expenditure incurred each year.

The Commonwealth has made an annual grant to this organization for operational expenses since 1936. Prior to that, from 1928 to 1931, the Commonwealth subsidized the Australian Inland Mission Aerial Medical Service. The Commonwealth annual grant to the Royal Flying Doctor Service of Australia towards maintenance was increased from £20,000 to £25,000 per annum, for three years from 30th June, 1957. The Commonwealth grant towards capital expenditure remained at £15,000 per annum. This capital expenditure grant is made on a £1 for £1 basis, in respect of approved projects.

The Royal Flying Doctor Service of Australia is conducted by a federal council comprising representatives of six sections, namely Queensland, New South Wales, Victoria, South Australia, Western Australia and the Eastern Goldfields of Western Australia. The Queensland, New South Wales and South Australian sections are centred in their own States but in Western Australia there are three centres, that in the far north being under the control of the Victorian section, and that in the south-east under the control of the Eastern Goldfields section. The third one, which has bases at Port Hedland and Meekatharra, is sponsored by the Western Australian section.

5. Red Cross Blood Transfusion Service.—The Australian Red Cross Society conducts a blood transfusion service in all States.

Before 1952-53, the cost of the Red Cross Blood Transfusion Service was borne by the Red Cross Society with assistance from the State Governments. In 1952, the Commonwealth agreed to make an amount of £50,000 available to the Red Cross Society through the State Governments. The States were to continue to assist the society at the same level as previously and make arrangements with the society to share any deficit still remaining.

The Commonwealth recognized that the proper maintenance of a blood transfusion service was of the utmost importance to the welfare of the community and that the service was one eminently suited for operation by the Australian Red Cross Society. Hence, in March, 1954, the Commonwealth offered each State Government a grant equal to 30 per cent. of the certifiable operating expenses incurred by the Society in the conduct of the blood transfusion service in that State. The grant was to be made subject to the conditions that the government of the State concerned agreed to meet 60 per cent. of the cost of operating the service in that State, leaving the society to meet the remaining 10 per cent. of the cost. All States accepted this proposal. The following table sets out the payments made by the Commonwealth government to the State governments in 1956-57:—

RED CROSS BLOOD TRANSFUSION SERVICE: PAYMENTS TO STATES FOR 1956-57.

				£
New South Wa	ıles		 	 30,809
Victoria			 	 31,698
Queensland			 	 19,352
South Austral	ia		 	 10,261
Western Austr	alia		 	 11,079
Tasmania		• •	 • •	 3,938
Total		• •	 	 107,137

C. INSTITUTIONS.

§ 1. General.

In Australia, institutions related to public health may be classified to 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 respect of (c) general tabulation is 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 special hospitals for infectious diseases, tubercular patients, women, children, and patients suffering from chronic diseases.

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.

2. Number, Staff and Accommodation.—Details regarding the number of hospitals, staff and accommodation for the year 1955-56 are given in the following table:—

PUBLIC HOSPITALS: NUMBER, STAFF AND ACCOMMODATION, 1955-56.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number of Hospitals	264	126	140	65	95	26	4		721
Medical Staff— Honorary Salaried Persons	3,446 748 4,194	1,284 631 1,915	610	438 137 575	309 107 416	92 99 191	13	34 4 38	5,754 2,349
Nursing Staff	11,035		4,563	2,062	2,376	$\frac{191}{1,153}$	13	113	<u>8,103</u> 29,070
Accommodation— Number of beds and cots	20,200	11,819		3,617	4,291	2,300	368	250	53,550

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.

3. In-Patients Treated.—The following table furnishes particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital twice during a year is counted twice. Newborn are excluded unless they remain in hospital after their mothers' discharge.

PUBLIC HOSPITALS: IN-PATIENTS TREATED, 1955-56.

									,	
Particulars		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
In-patients at be	egin-		i——		·				·	<u> </u>
ning of year-	-	}		i .		: /	i		i .	
Males		6,302	3.522	3.619	1,106	1,350	782	151		16,894
Females		8,700	4,968	3,797	1,350	1,374	931	100	88	21,308
Persons		15,002	8,490	7,416	2,456	2,724	1,713	251	150	38,202
Admissions and admissions du										
year										
Males		155,618	79,304			35,709	11,950	2,994	2,070	403,778
Females	• •	243,512	135,192	106,304	37,355		19,240	2,979		590,688
Person s		399,130	214,496	192,953	66,839	78,547	31,190	5,973	5,338	994,466
Total in-pati (cases) treated									_	
Males		161,920	82,826	90,268	30,590	37,059	12,732	3,145	2,132	420,672
Females		252,212	140,160	110,101	38,705	44,212	20,171	3,079	3,356	611,996
Persons		414.132	222,986	200,369	69,295	81,271	32,903	6,224	5,488	1,032,668
Discharges—										
Males		148.983	75,214	83,429	28,066	34,496	11,327	2,944	1,990	386,449
Females		238,622	131,934	104,206	36,220	42,041	18,853	2,929	3,224	578,029
Persons		387.605	207.148	187,635	64,286	76,537	30,180	5,873	5,214	964,478
Deaths-										
Males		6.963	4,171	3,291	1.365	1.307	606	88	67	17,858
Females	'	5,297	3,495	2,304	1,032	857	477	46	51	13,559
Persons		12,260	7,666	5,595	2,397	2,164	1,083	134.	118	31,417
In-patients at en-	d of							1		
Males	!	5,974	3,441	3,548	1.159	1,256	799	113	75	16,365
Females		8,293,	4,731	3,591	1,453	1,314	841	104	81	20,408
Persons		14,267	8,172	7,139	2,612	2,570	1,640	217	156	36,773
Average daily n ber resident	um-	15,791	8,252	7,104	2,530	2,648	1,636	226	154	38,341
		,,,,,	-,	.,	,,	•1		1	. !	•

In addition to those admitted to the hospitals, there are large numbers of out-patients. During 1955-56, there were 1,077,618 out-patients treated in New South Wales, 514,423 in Victoria, 583,061 in Queensland, 109,196 in South Australia, 121,000 (estimated) in Western Australia, 111,008 in Tasmania, 63,530 in the Northern Territory and 7,661 in the Australian Capital Territory, making an estimated total for Australia of 2,587,000. The figures quoted refer to cases, as distinct from persons and attendances.

4. Revenue and Expenditure.—Details of the revenue and expenditure for the year 1955-56 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits Scheme.

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1955-56. (£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
Revenue— Government aid Commonwealth Hospital Benefits, etc. Municipal aid Public subscriptions,	} 19,068 (a)	{ 11,825 2,333 21			517	} 1,600	381 37		55,392
legacies, etc	134 6,792 949	3,183			902		51	42	1,664 12,539 1,605
Total	26,943	18,796	11,571	5,851	5,472	1,958	469	276	71,336
Expenditure— Salaries and wages Upkeep and repair of buildings and	14,639	8,550	5,376	2,501	2,728	1,262	289	147	35,492
grounds All other ordinary Capital	779 7,190 5,138	6,370	4,189	309 1,391 1,717	1,827	675	57	88	21,787
Total	27,746	19,824	12,230	5,918	5,421	2,408	469	276	74,292

⁽a) Included in "Other".

5. Summary.—A summary, for the years 1951-52 to 1955-56, 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.

PUBLIC HOSPITALS: AUSTRALIA.

Particulars.	1951–52.	1952–53.	1953–54.	1954-55.	19 55 –56.
Hospitals	675	694	699	709	721
Medical Staff	6,889	7,246	7,487	7,738	8.103
Nursing Staff	24,556	25,940	26,116	27,566	29,070
Beds and cots	47,328	50,076	50,812	52,979	53,550
Admissions during year	863,058	905,492	925,571	1 008,955	994,466
Total in-patients (cases) treated	896,020	939,856	961,288	1,046,171	1,032,668
Out-patients (cases) (a)	2,286,183	2,422,302	2,458,631	2,651,000	2,587,000
Deaths	28,746	28,604	29,403	32,489	31,417
Average daily no. resident	33,552	34,552	34,587	38,179	38,341
Revenue(b) £	41,216,677	51,141,059	54,814,436	63,943,446	71,336,164
Expenditure £	43,327,700	50,541,100	53,884,574	64,192,550	74,292,240

⁽a) Partly estimated. or New South Wales.

⁽b) Up to and including 1954-55, excludes loan receipts and expenditure

§ 3. Leper Hospitals.

Isolation hospitals for the care and treatment of persons suffering from Hansen's disease (leprosy) 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 (East Arm Settlement, near Darwin). In addition, special wards for the isolation of leprosy patients have been provided at Fairfield (Victoria) and Wooroloo (Western Australia). At the end of 1957 there were 6 cases in residence at Little Bay, 19 at Peel Island, 24 at Fantome Island, 175 at Derby, 186 at East Arm Settlement, 5 at Fairfield and 1 at Wooroloo. Of the 416 cases, 351 were full-blood aborigines, 34 half-caste aborigines, 3 Asians and 28 Europeans.

§ 4. Mental Hospitals.

- 1. General.—The methods of compiling statistics of mental patients 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. 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. There are no mental hospitals in the Northern Territory or the Australian Capital Territory.
- 2. Hospitals, Staff and Accommodation.—Particulars regarding the number of hospitals, the medical and nursing staff, and accommodation are given in the following table for the year 1956. Figures for Victoria and Western Australia relate to 31st December, 1956. Figures for the other States relate to 30th June, 1956.

MENTAL HOSPITALS: NUM	BESR STAFF.	ACCOMMODATION.	1956.
-----------------------	-------------	----------------	-------

Particula	rs.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of Hospitals	••		14	13	5	2	4	1	39
Medical Staff— Males Females	::	::	37	} 77	{ 11 2	12 1	8	4	} 161
Persons			(b) 46	77	13	13	8	4	161
Nursing Staff and Atta Males Females	endants—	- ::	998 1,018	1,002 1,068	548 455	214 226	180 131	97 93	3,039 2,991
Persons			2,016	2,070	1,003	440	311	190	6,030
Accommodation— Number of beds and	l cots		12,652	7,517	4,787	2,668	1,655	810	30,089

⁽a) Includes the Epileptic Home. for their services.

⁽b) In addition there are 59 visiting specialists who are paid

3. Patients.—Information regarding patients treated during 1955-56 is given in the following table:—

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1955-56.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.	
Number of paties	nts at beg	inning of						ļ	
year—								252	15 604
Males .			6,533	3,928	2,479	1,324	1,007	353	15,624
Females .	•		6,889	4,476	2,225	1,289	783	407	16,069
Persons .			13,422	8,404	4,704	2,613	1,790	760	31,693
A 4		-: (
Admissions and cluding abscor	re-aums	Sions (ex-	1	- 1			!!	i	
transfers from	other has	nitais)	1			ļ	1 1	1	
Males .			1,159	1,543	674	284	158	185	4,003
Females .	: :		1,299	1,121	564	268	108	161	3,521
Persons .			2,458	2,664	1,238	552	266	346	7,52 4
Number of pers	ons treate	d during					(-		
year(c)—	one areall		1			1	1	1	
Males .			7,692	5,471	3,153	1,608	1,165	538	19,627
Females .			8,188	5,597	2,789	1,557	891	568	19,590
	·	•						 :	
Persons .			15,880	11,068	5,942	3,165	2,056	1,106	39,217
			15,000	11,000	3,542	3,103		1,200	
Discharges (inclu	ding absc	onders not							
retaken)—			li						
Males .			524	988	427	134	63	145	2,281
Females .			667	590	379	142	37	139	1,954
					I ——	·	·		
Persons .			1,191	1,578	806	276	100	284	4,235
			-,	-,					
Deaths-									
Males			456	344	198	104	76	15	1,193
Females .	•		466	433	203	127	66	41	1,336
						·			
Persons			922	777	401	231	142	56	2,529
Number of patie	nts at end	i of year—	1 1				1		
Males .			6,712	4,139	2,528 2,207	1,370	1,026	378	16,153 16,300
Females .	••		7,055	4,574	2,207	1,288	788	388	16,300
						-	-		
Persons			13,767	8,713	4,735	2,658	1,814	766	32,453
					.,		_		
	1		1 .		!		1	1	
Average daily nu			5 074	2 421	2411	1 220	055	362	14 261
Males			5,874	3,431	2,411	1,328	955 696	362 394	14,361
Males Females			5,874 5,931	3,431 3,969	2,411 2,077	1,328 1,211		362 394	14,361 14,278
Males Females			5,931	3,969	2,077	1,211	696	394	14,278
Males Females	:: :			3,431 3,969 	2,411 2,077 4,488	1,211	696		14,361 14,278 28,639
Males Females Persons			5,931	3,969	2,077	1,211	696	394	14,278
Males Females Persons Number of patie	nts at end		5,931	3,969	2,077	1,211	696	394	14,278
Males Females Persons Number of patie 1,000 of popu	nts at end	of year per	11,805	7,4 00	4,488	2,539	1,651	756	28,639
Males Females Persons Number of patie	nts at end		5,931 11,805 3.76	3,969 7,400 3.12	2,077 4,488 3,59	2,539	1,651	394	28,639 3.37
Males Females Persons Number of patie 1,000 of populates	nts at end	of year per	11,805	7,4 00	4,488	2,539	1,651	756	28,639
Males Females Persons Number of patie 1,000 of popu Males Females	nts at end lation—	of year per	3.76 3.99	3,969 7,400 3.12 3.51	2,077 4,488 3.59 3.31	2,539	1,651 2.91 2.38	756 2.30 2.49	28,639 3.37 3.49
Males Females Persons Number of patie 1,000 of popu Males Females	nts at end lation—	of year per	5,931 11,805 3.76	3,969 7,400 3.12	2,077 4,488 3,59	2,539	1,651 2.91 2.38	756	28,639 3.37
Males Females Persons Number of patie 1,000 of popu Males Females Persons	nts at end	of year per	3.76 3.99 3.87	3,969 7,400 3.12 3.51	2,077 4,488 3.59 3.31	2,539	1,651 2.91 2.38	756 2.30 2.49	28,639 3.37 3.49
Males Females Persons Number of patie 1,000 of popu Males Females Persons Average numbee in mental ho	nts at end lation—	of year per	3.76 3.99 3.87	3,969 7,400 3.12 3.51	2,077 4,488 3.59 3.31	2,539	1,651 2.91 2.38	756 2.30 2.49	28,639 3.37 3.49
Males Females Persons Number of patie 1,000 of popu Males Females Persons Average numbe in mental ho population—	nts at end lation—	of year per	5,931 11,805 3.76 3.99 3.87	3,969 7,400 3.12 3.51 3.31	3.59 3.31 3.45	3.18	1,651 2.91 2.38 2.65	756 2.30 2.49 2.40	3.37 3.49 3.43
Males Females Persons Number of patie 1,000 of popul Males Females Persons Average number in mental hopopulation— Males	nts at end lation—	of year per	3.76 3.99 3.87	3,969 7,400 3.12 3.51 3.31	3.59 3.31 3.45	3.18 3.09 3.13	1,651 2.91 2.38 2.65	756 2.30 2.49 2.40	3.37 3.49 3.43
Males Females Persons Number of patie 1,000 of popu Males Females Persons Average numbei in mental ho population—	nts at end lation—	of year per	3.76 3.99 3.87	3,969 7,400 3.12 3.51 3.31	3.59 3.31 3.45	3.18 3.09 3.13	1,651 2.91 2.38 2.65	756 2.30 2.49 2.40	3.37 3.49 3.43
Males Females Persons Number of patie 1,000 of popu Males Females Persons Average numbe in mental ho population— Males	nts at end lation—	of year per	3.76 3.99 3.87	3,969 7,400 3.12 3.51 3.31	3.59 3.31 3.45	3.18 3.09 3.13	1,651 2.91 2.38 2.65	756 2.30 2.49 2.40	3.37 3.49 3.43
Males Females Persons Number of patie 1,000 of popul Males Females Persons Average number in mental hopopulation— Males Females	nts at end lation—	of year per	3.76 3.99 3.87 3.32 3.38	3,969 7,400 3.12 3.51 3.31	3.59 3.31 3.45	3.18 3.09 3.13 3.14 3.09	1,651 2.91 2.38 2.65 2.65	756 2.30 2.49 2.40	3.37 3.49 3.43

⁽a) Year 1956. (b) Includes persons treated at the Epileptic Home. transferred to other institutions,

Persons who are well advanced towards recovery are allowed to leave the hospitals and live with their relatives or friends, but they are under supervision and their names are kept in the records. They are included in the figures shown in the above table.

4. Revenue and Expenditure, 1955-56.—Mental hospitals are maintained by the State Governments. They derive a small proportion of their revenue from other sources (chiefly patients' fees, pharmaceutical benefits and sale of farm produce), but in 1955-56 this source provided less than 4 per cent. of all their revenue. For a statement on the funds provided by the Commonwealth Government for the treatment of mental diseases, see Part B of this Chapter, § 2, para. 3, Mental Hospitals, p. 522.

In New South Wales, the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals:—

MENTAL HOSPITALS: FINANCES, 1955-56.

			(2.)				
Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Revenue (excluding Government Grants)— Fees of patients Other	231,940 (b) 85,593	34,830	73,764 5,145	42,652 39,470	32,330 10,998	9,214, 620,	389,900 176,656
Total	317,533	34,830	78,909	82,122	43,328	9,834	566,556
Expenditure— Salaries and wages Upkeep and repair of buildings, etc. All other Capital(c)	2,320,442 234,362 1,644,596 947,174	2,194,140 331,812 2,017,321 1,505,954	1,001,906 13,563 748,120 88,302	494,757 69,820 367,588 140,741	428,874 19,653 252,461 40,554	218,835 8,899 104,420 108,637	678,109
Total	5,146,574	6,049,227	1,851,891	1,072,906	741,542	440,791	15,302.931
Expenditure per average daily resident	£435/19/4	£817/9/3	£412/12/8	£422/11/5	£449/2/11	£583/1/2	£534/6/9

⁽a) Includes ne Fpileptic Home. (b) Includes £28,716 Commonwealth Hospital Benefits. (c) Capital expenditure includes purchases of land, cost of new buildings, and additions to buildings.

5. Summary for Australia.—The following table gives a summary relating to mental hospitals in Australia for each of the years 1951-52 to 1955-56:—

MENTAL HOSPITALS: SUMMARY, AUSTRALIA.

Particulars.	1951-52.	1952-53.	1953–54.	1954–55.	1955 -5 6.
Hospitals	33	34	34	37	39
Medical Staff	145	159	140	144	161
Nursing Staff and Attendants	5,164	5,276	5,541	5,748	6,030
Beds	27,768	29,069	29,244	29,690	30,089
Admissions	5,582		5,628	5,722	7,524
Discharged as recovered, relieved, etc.	2,732	2,907	3,126		4,235
Deaths	2,141	2,244	2,178	2,276	2,529
Patients at end of year	29,769		30,798	31,223	32,453
Average daily resident	26,787	27,478	27,921	28,012	28,639
Revenue (excluding Government					,
Grants) £	861.083	866,561	888,681	654,486	566,556
Expenditure-Total £	8.749,187	10.713.747	11.680.996	13,189,269	
"—Per average daily	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , ,	, , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	, <u>-</u> ,
resident	£330/5/11	£393/0/7	£420/7/3	£467/14/5	£534/6/9

6. Number of Mental Patients.—The total number returned as under treatment at the end of each year shows a slight increase 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 increase in mental diseases. The difference between States in the number of patients in mental hospitals per 1,000 of population may also to some extent be the result of differences in classification. Figures for Victoria and Western Australia relate to 31st December of the year shown; figures for the other States relate to 30th June of the year shown.

PATIENTS IN MENTAL HOSPITALS.

			TVIETTIA	LHOST	171155.		
State.			1952.	1953.	1954.	1955.	1956.
			Number	•	I		
New South Wales			12,873	12,979	13,169	13,422	13,767
Victoria			7,568	7,707	7,936	7,795	8,713
Queensland(a)			4,388	4,554	4,621	4,704	4,735
South Australia			2,425	2,534	2,644	2,613	2,658
Western Australia			1,599	1,666	1,721	1,798	1,814
Tasmania	••		710	750	771	760	766
Australia			29,563	30,190	30,862	31,092	32,453
		PER 1	000 of Po	PULATION.			
New South Wales		•	3.85	3.84	3.85	3.85	3.87
Victoria			3.29	3.26	3.28	3.14	3.31
Queensland(a)			3.48	3.53	3.51	3.50	3.45
South Australia			3.21	3.27	3.32	3.19	3.13
Western Australia			2.71	2.72	2.72	2.77	2.65
Tasmania	• •		2.40	2.47	2.50	2.42	2.40
Australia	••	• •	3.46	3.46	3.47	3.40	3.43

⁽a) Includes the Epileptic Home.