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CHAPTER XVII.

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 Director of State Psychiatric Services is responsible for the administration of that part of the Mental Health 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 Occupational Health); (c) Tuberculosis and Epidemiological 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, which is constituted under the Health Act 1958, contains, in addition to the central administration, 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.* The branch, which, *inter alia*, is the administrative branch for the Commission of Public Health, protects or promotes the health of the community in the following ways:—

The Engineering Division scrutinizes from a public health point of view the plans of all public buildings and provincial sewerage installations and makes periodical inspections. Other activities include prevention of stream pollution and supervision of abattoirs and cattle sale yards.

The Poliomyelitis Division provides a comprehensive orthopaedic, physiotherapy and respirator service for all eligible patients and carries out rehabilitation in conjunction with the Commonwealth Government. Facilities developed for poliomyelitis are now being used for other neurological disorders. The Division is also concerned with the Salk immunization campaign being undertaken in Victoria. Through the municipalities, immunization against poliomyelitis, diphtheria, smallpox, whooping cough, and tetanus is encouraged and supervised.

Prevention and control of infectious diseases are functions of this Branch, which also sponsors original research into virus diseases and epidemiological investigations throughout Victoria.

The Venereal Diseases Division provides a centrally situated headquarters where the use of modern remedies is effecting a general improvement in the standard of treatment.

Standards of quality and purity of foods and drugs are fixed by the Food Standards Committee and are administered and enforced by both departmental and municipal health inspectors.

Investigations into occupational hazards to the health of workers, the treatment and incidence of occupational diseases, and research into the effects of toxic substances used in industry are conducted by the Industrial Health Division.

Subsidies are granted to municipalities to provide meals for pensioners, to clubs for elderly citizens, and to emergency housekeeper services.

Other services operated by the Branch are: registering plumbers and gasfitters; providing free travel to hospital for people with limited incomes; analysing food, drink, water and sewerage effluents; registering cinematograph operators; administering the Cemeteries Acts and the Clean Air Act; and advising industry on health hazards associated with handling radioactive substances.

(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 is concerned with the prevention of tuberculosis and the treatment and rehabilitation of tubercular patients.

(d) *The Mental Hygiene Branch.* This Branch is controlled by the Mental Hygiene Authority and consists of institutions for in-patient care and out-patient's clinics and other services necessary for a comprehensive community mental health programme. Since the appointment of the Authority in 1951, existing buildings have been remodelled and new ones provided. Services have been re-organized to conform with modern requirements.

(e) *The Cancer Institute.* This Institute was incorporated in 1948 and provides, *inter alia*, facilities for research and investigation related to the causes, prevention, diagnosis and treatment of cancer and allied conditions. The policy of the Cancer Institute Board has been to ensure the provision of maximum clinical service to patients and to carry out related research. Clinics have been opened in a number of country centres in co-operation with the local hospital committees.

Under an agreement with the Government of Tasmania, clinics are also conducted at Launceston and Hobart.

A 4,000 kV linear accelerator was installed in Melbourne in 1956 and a Cobalt 60 unit in Launceston in 1957. Another 4,000 kV linear accelerator is expected to come into operation in Melbourne early in 1961. During the twelve months ended 30th June, 1960, out-patient attendances were 103,365, involving 7,327 individual patients. One hundred in-patient beds are available.

3. **Queensland.**—(i) *General.* The Health Acts 1937 to 1960 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 communicable disease control, environmental sanitation, food and drug control, enthetic, (venereal) diseases, hookworm control and Hansen's disease (leprosy) control. Free treatment of venereal diseases is offered at the Department's clinics in Brisbane and at any public hospital. Free immunization against poliomyelitis, diphtheria, whooping cough and tetanus is offered by most of the local authorities. The majority of school children have been immunized against diphtheria and poliomyelitis.

(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. Similar clinics are situated at the Cairns, Rockhampton, Thursday Island, Toowoomba, and Townsville district hospitals. Mobile X-ray units visit country districts. Children in the final grade of primary schools are now being Mantoux-tested and given B.C.G. vaccine. The compulsory X-ray examination of all persons over the age of 14 years has commenced in Northern Queensland and will be applied progressively to other areas of the State.

(c) *Division of Industrial Medicine.* The services of this division are available both to industry and the trade union movement for the prevention of industrial hazards. This division is particularly interested in occupational diseases, such as silicosis and lead and other poisoning, and advises on industrial problems such as lighting, ventilation, fatigue, air pollution and the use of radio-active isotopes.

(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 245 baby health centres throughout the State. Outlying centres are visited by air or by special rail car. Homes for in-patient treatment of infants with feeding problems have been established at Brisbane, Toowoomba, Ipswich and Rockhampton.

(e) *Division of School Health Services.* This Division comprises the Chief Medical Officer, School Health Services, and a staff of 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 institutions, country hospitals and private doctors, and provides a medico-legal service for the whole State.

(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. Each region comprises a number of hospital districts, the purpose of the regional scheme being 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. During the year 1958–59, there were 57 hospitals boards controlling 131 public hospitals. In addition, five other general hospitals received aid from the Government, and there were two institutions for the treatment of Hansen's disease.

An institution for the treatment of Hansen's disease in aboriginals is maintained at Fantome Island near Townsville. Modern therapy has rendered the Peel Island institution unnecessary and patients are now treated at the South Brisbane Hospital.

Private hospitals in Queensland are controlled under the provisions of the Health Acts, 1937 to 1955, and the Private Hospitals Regulations, 1937. There are 56 private hospitals licensed in the State, containing 1,712 beds and cots, of which 21, containing 784 beds and 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 Radiological Advisory Committee, the School Health Services (comprising School Medical and Dental Services and Deafness Guidance Clinic), Poliomyelitis Services and the public health aspect of the control of tuberculosis, including the State X-ray Health Survey, under the control of the Director of Tuberculosis.

The Central Board of Health consists of five members, three of whom (including the chairman) are appointed by the Governor, while one 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 1911–1959. The central authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The State is divided into local government areas, each administered by a municipal council or a road board. All local government authorities have health administration powers.

In any emergency, the Commissioner may exercise all the powers of a health authority in any part of the State.

Features of legislation since 1947 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. 21 of 1957 gives power to require the notification of any prescribed condition of health in addition to infectious diseases; (e) Act No. 17 of 1956 gives local authorities power to provide or subsidize centres for the accommodation and care of the aged; (f) Act No. 30 of 1958 provides for the establishment of the Health Education Council with the object of promoting and improving the health of the people of Western Australia; and (g) Act No. 43 of 1958 provides for the establishment of the Cancer Council of Western Australia with the objects of co-ordinating, promoting and subsidizing cancer research.

6. *Tasmania.*—The Department of Health Services is under the jurisdiction of the Minister of Health. The Department consists of a Headquarters and three Divisions. The Director-General of Health Services is the permanent head of the Department, and he administers the Department through Directors of each of the three divisions (Division of Public Health, Division of Mental Health, and Division of Tuberculosis) and through several other clinical directors and other senior officers attached to the Headquarters of the Department, including the Directors of Orthopaedics, Pathology and Anaesthetics, and the Government Analyst and Chemist.

In addition to his responsibility for the functioning of the Department as a whole, the Director-General of Health Services directly administers the various branches of the work performed by Headquarters. This is concerned particularly with the following:—

- (a) The Administration of the Hospital Services throughout the State.
- (b) The District Medical Service.
- (c) The Hospital and Government Nursing Service, which includes the administration of 27 District Nursing Centres throughout the State.
- (d) Legislation concerned with Health and allied matters and the Nurses' Registration Board.
- (e) The Health Education Council and National Fitness Council.
- (f) Specialist Medical Services.
- (g) Statistical classification of Diseases and Injuries.
- (h) Liaison with other States and the Commonwealth Health Department, and all matters dealing with the maintenance of Departmental property and the appointments and salaries of Departmental staff.

The Division of Public Health administers laws relating to sanitation, notification of infectious diseases, and food and drug legislation. The Division also controls the school medical and dental services and child health services.

The Division of Mental Health is responsible for the supervision 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. The Tuberculosis Division is concerned with the prevention (including B.C.G. vaccination), detection, notification, examination and treatment of all forms of tuberculosis occurring in the State. This Division also conducts the compulsory mass chest-X-ray examinations and maintains chest hospitals and diagnostic clinics.

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 253 in-patients, Alice Springs Hospital 125, Katherine Hospital 36, and Tennant Creek Hospital, 34. The treatment of Hansen's disease (leprosy) is carried out at East Arm Settlement. 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 two De Havilland Doves 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 Royal Flying Doctor Service (South Australian) base.

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

School doctors and dentists travel throughout the Territory to carry out diagnosis and treatment. Public health services are provided, and health inspectors visit all settlements periodically.

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

8. **Australian Capital Territory.**—The Public Health Ordinance 1928–1951 places under the control of the Minister for Health all matters relating to public health and hygiene in the Australian Capital Territory. A Medical Officer of Health and a number of Health Inspectors are appointed 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 255 in-patients. 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 1955 to 1959 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 X.—Vital Statistics (*see* page 359).

INFANT DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1955.	1956.	1957.	1958.	1959.	1955.	1956.	1957.	1958.	1959.

NUMBER OF INFANT DEATHS.

New South Wales	814	784	795	792	842	1,036	993	1,009	912	990
Victoria ..	549	630	703	718	758	486	498	516	460	562
Queensland ..	210	224	224	209	212	446	513	508	448	509
South Australia ..	207	193	202	241	225	224	184	201	208	197
Western Australia	187	156	168	167	161	186	228	189	193	184
Tasmania ..	55	53	51	63	53	134	117	119	104	149
Total(a) ..	2,022	2,040	2,143	2,190	2,251	2,512	2,533	2,542	2,325	2,591

RATE OF INFANT MORTALITY.(b)

New South Wales	22.76	21.33	20.40	20.03	20.91	26.81	25.49	24.92	22.52	24.39
Victoria ..	16.68	18.13	19.39	19.41	20.09	20.75	21.07	21.32	18.95	22.93
Queensland ..	18.60	19.93	18.88	17.83	17.23	21.17	24.23	23.20	20.23	21.85
South Australia ..	20.13	18.47	18.85	21.62	19.96	27.27	21.61	22.79	23.37	21.66
Western Australia	22.50	17.89	19.63	18.44	18.28	22.37	27.82	22.59	24.75	22.16
Tasmania ..	23.10	22.18	19.97	24.51	20.18	23.48	20.48	20.23	17.34	24.84
Total(a) ..	20.03	19.56	19.68	19.81	19.92	23.84	23.85	23.18	21.14	23.18

(a) Excludes 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 baby health centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. Departments control the boarding-out of the wards of the State to suitable persons, 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.

Under the provisions of Part V. of the Social Services Act 1947–1960, 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 XVIII.—Welfare Services, page 697.

2. *Nursing Activities.*—(i) *General.* In several 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. 515–16), 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 for the year 1960.

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1960.

Heading.	N.S.W.	Vic.	Qld. (a)	S. Aust. (a)	W.Aust.	Tas.	N.T.	A.C.T. (a)	Aus- tralia.
Baby Health Centres—									
Metropolitan No.	114	164	68	93	34	19	..	11	503
Urban-Provincial and Rural No.	251	444	177	140	25	77	2	..	1,116
Total No.	365	608	245	233	59	96	2	11	1,619
Mobile Units—									
No.	..	8	1	4	4	..	..	..	17
Attendances at Centres No.	1,032,056	1,335,435	478,096	233,990	221,619	136,552	6,705	35,750	3,480,203
Visits paid by Nurses No.	(b)	158,902	28,550	24,850	23,480	75,399	3,547	3,835	(b)
Bush Nursing Associa- tions—Number of Centres	26	59	7	30	13	25	..	..	160

(a) Year ended 30th June.

(b) Not available.

In the last thirty years, the number of attendances at the Baby Health Centres has nearly quadrupled. 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 1960, the number of attendances was 3,480,203.

§ 3. Medical Inspection of School Children.

1. *General.*—Medical and dental inspection of school children is carried out in all States, in the Northern Territory and in the Australian Capital Territory. In some States, travelling clinics have been established to deal with dental 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, Bathurst, Lismore and district, Grafton and district, and Cootamundra, 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, school children are examined by local medical practitioners according to the normal practice of the School Medical Service and under the supervision of local Municipal and Shire Councils. During the first examination, all children at these schools are examined, and following that, the same procedure is adopted as in the metropolitan area. This scheme is growing and the majority of Councils in New South Wales have expressed interest and are endeavouring to arrange with local medical practitioners to have the scheme introduced.

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

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.

Medical officers of this service examined 135,513 children in 1959. Notifiable defects were found in 26.9 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, and postural defects.

Six child guidance clinics in the metropolitan area and one at Newcastle operate under the administration of the School Medical Service. One clinic functions at the Yasmar Boys' Shelter and deals exclusively with cases which come before the Children's Courts. Each clinic is staffed by a psychiatrist, a psychologist and social workers.

(ii) *School Dental Service.* There are 28 dental officers and 23 dental assistants of the staff of the Division of Dental Services, Department of Public Health, providing a School Dental Service for New South Wales school children.

At the beginning of the 1961 school year, nine fully-equipped mobile dental clinics were in service in country areas. The clinics are staffed by a dentist and assistant. They visit country schools and provide treatment free of charge.

Arrangements are proceeding for the erection of five fixed clinics, each of two surgeries, waiting room, office and separate washrooms for patients and staff. These will be located at Newcastle and Wollongong, and at Hurstville, Parramatta and Naremburn in the Sydney metropolitan area.

When the clinics are completed, free treatment may be obtained for those school children whose parents desire it. It will be necessary to restrict the treatment to children of 6, 7 and 8 years of age although children of any age may obtain free treatment of an emergency nature.

A system involving examination only was commenced in September, 1960, whereby as many primary school children as possible are encouraged to seek private treatment.

A well-equipped dental surgery is in continuous operation at the Stewart House Preventorium, staffed by officers of the Division.

A free dental service is provided for children living west of the Darling River in co-operation with the Royal Flying Doctor Service.

In country areas where no adequate dental facilities exist, school children of all ages are eligible for treatment in the mobile clinics.

In 1960, 49,812 school children were examined and 13,720 were treated in 45,778 visits; 21,136 extractions, 49,032 fillings and 53,434 other treatments were completed. The parents of a further 19,594 children were notified of dental defects requiring treatment.

3. *Victoria.*—School Medical Services are conducted in close association with the Education Department. All children between the ages of 5 and 14 years attending State and registered primary schools are examined regularly, and any disabilities found in the children are brought to the notice of their parents. School nurses, under medical direction, visit the homes and schools. Children suffering from physical and mental disabilities are recommended to attend appropriate schools or classes by the medical officers. Some special training for the handicapped is given.

The School Dental Service has a staff of 40 dental officers and provides dental attention for children in parts of the metropolitan area at one of three dental centres and for a number of country districts by means of 15 mobile units. It also provides dental service for children's institutions in and around Melbourne and certain provincial centres. This service is now providing dental attention for some 80,000 primary school children.

4. **Queensland.**—During 1959–60, medical officers and nurses examined 99,206 school children, referring children with defects to their own doctors. In western Queensland, local doctors act as part-time ophthalmic surgeons. 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 1959–60, school dentists gave treatment to 9,578 school children whose parents could not afford private treatment. The treatment was carried out at four rail dental clinics and with portable equipment at schools. 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 years and all the children are examined. Students who wish to become teachers are examined on appointment as Leaving Teaching Scholars 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 1959, 67,698 children were examined by medical officers in 201 country and 110 metropolitan schools. Of these, 5,243 required treatment for defective vision, 943 for defective hearing, and 14,192 for dental disorders.

There were 949 children examined at the deafness guidance clinic during 1959. Of the 505 new patients, 351 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.

6. **Western Australia.**—The School Medical Service of the State Health Department employs seven full-time medical officers for schools. During 1959, these officers examined 48,321 children (metropolitan 31,289, country 17,032). The 274 schools visited comprised—metropolitan, 160 (state schools 111, convents 49), and country, 114 (state schools 89, convents 25). The aim is to examine each school child three times in his school career.

During 1959, the 15 full-time dentists employed by the School Dental Service visited 13 metropolitan schools, 143 country schools, 13 orphanages and 10 native missions. The number of children examined was 12,595. With the consent of their parents, 7,079 of these were treated. The number of dental vans operating was 12. The cost of the School Medical Service and the School Dental Service for 1958–59 was £77,413.

7. **Tasmania.**—During 1959, two full-time and three part-time medical officers examined school children in State and private schools, and 14 full-time and one part-time sisters visited homes and schools. Of the 19,976 children examined by medical officers, 6,887 were found to have defects.

Twelve school dental officers were employed during 1959, operating from surgeries at Hobart, Launceston, Burnie and Devonport, and from mobile clinics in other districts. A full-time dental surgeon is in charge of each surgery or clinic. During the year, there were 17,884 new visits to the school dentists and 28,400 repeat visits.

The cost of school medical and school dental services for the year ended 30th June, 1959, was £78,503.

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-blood aborigines, who are examined during native health surveys.

An immunization clinic and a paediatric clinic are held each week at the Darwin Hospital.

(ii) *School Dental Service.* A special service for school and pre-school children is available in Darwin.

9. *Australian Capital Territory.*—The Commonwealth Department of Health is responsible for health aspects of child welfare in the Australian Capital Territory. These include a school medical service carried out by a medical officer and a trained nurse who are full-time officers of the Health Department.

Routine examinations are carried out at all schools, public and private, within the Territory. The programme is planned to provide for examinations, at the ages of six, eight and 12 years. During 1960, the total number of children examined in these age groups was 3,647.

Examinations of children attending Pre-School Centres are made according to the time available, an attempt being made to cover children aged 4½ to five years. In 1960, lack of time prevented full coverage but 206 pre-school children were examined.

In addition, an immunization programme for the protection of children aged from six months to 12 years against diphtheria, whooping cough and tetanus is carried out by the school doctor. Injections given during 1960 numbered 5,997.

The officer-in-charge of the school service also acts as medical adviser to the Mothercraft Council and at the Baby Health Centres.

The school dental service is staffed by nine dentists and ten dental nurses, and has operated since 1950. Free dental treatment is available to children at primary and infants' schools and pre-school centres. Approximately 90 per cent. of children accept treatment. During 1960, 7,666 children were examined, involving 21,448 visits by these children.

§ 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.

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

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

§ 6. Disposal of Dead by Cremation.

The first crematorium in Australia was opened in South Australia in 1903. At 31st December, 1960, there were seventeen crematoria in Australia, situated as follows:—New South Wales, 7; Victoria, 3; Queensland, 2; South Australia, 1; Western Australia, 2; Tasmania, 2.

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

The following table shows the number of cremations in each State for each of the years 1956 to 1960:—

CREMATIONS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1956	12,358	6,733	3,341	514	1,201	551	24,698
1957	12,189	6,849	3,250	539	1,239	688	24,754
1958	12,190	6,913	3,308	620	1,363	622	25,016
1959	13,352	7,549	3,678	779	1,433	666	27,457
1960	13,809	7,839	3,709	915	1,526	692	28,490

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 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.—A comprehensive range of drugs and medicines is made available to all persons receiving treatment from a medical practitioner registered in Australia. The benefits are supplied by an approved pharmacist upon presentation of a prescription, or by an approved hospital to patients receiving treatment at the hospital.

The patient pays the first 5s. of the cost of the prescription, but pensioners who qualify under the Pensioner Medical Service (*see* para. 5, page 667) receive all benefits without any contribution being made.

Total expenditure on pharmaceutical benefits in the year 1959–60 was £24,335,671.

2. Hospital Benefits.—The payment of hospital benefits to the States is authorized under Part V. of the National Health Act 1953–1959. 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.

The agreements provide for the payment of 12s. a day for patients who are pensioners or their dependants, and for patients in certain South Australian hospitals. The rate of 8s. a day is paid for other patients.

The National Health Act also provides for the payment of 8s. a day 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. a day if a person contributes for a fund benefit of at least 6s. a day but less than 16s. a day, and at the rate of 12s. a day if a person contributes for a fund benefit of at least 16s. a 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. Reimbursement of the Commonwealth additional benefit is subsequently made to the organization by the Commonwealth.

Until 1st January, 1959, organizations' rules generally provided for disallowance of claims for fund benefit in cases of chronic or pre-existing ailments, or after the contributor had received benefit for a certain maximum period each year. As from 1st January, 1959, provision was made for fund benefit to be paid in these cases. The fund benefit generally

payable in such cases is 16s. a day and is paid either from special accounts guaranteed by the Commonwealth, or from the ordinary accounts of the organizations. One of the original conditions of payment was that the treatment was given in a hospital recognized for the purpose of paying this benefit. While this condition still remains as a general rule, provision has been made as from 1st January, 1960, for fund benefit to be paid in certain circumstances to particular cases for treatment in hospitals which are not recognized.

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

Expenditure on hospital benefits in 1959-60 was £17,345,478. This does not include expenditure on mental hospitals (see para. 3, below).

The following tables show the amount of ordinary benefit paid for each of the years 1957-58 to 1959-60, together with the number of registered organizations, the membership thereof, and payments of Commonwealth additional benefit and hospital fund benefit on account of occupied beds in public and approved private hospitals, for the year 1959-60. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefit schemes is considerably higher than the number of members. Reliable figures for coverage are not available.

HOSPITAL BENEFITS: SUMMARY, 1956-57 to 1959-60.

1. Ordinary Benefits. (a) Paid to Hospitals in respect of occupied beds.

(£.)

Year Ended 30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Territories and Overseas.	Aus- tralia.
1957	3,065,921	1,920,075	1,356,017	714,980	594,007	264,227	57,936	7,973,163
1958	2,832,282	2,024,597	1,415,169	735,079	644,149	276,378	63,498	7,991,152
1959	3,260,416	2,077,329	1,493,257	746,282	720,164	284,522	65,313	8,647,283
1960	3,788,086	2,144,317	1,577,241	820,126	740,266	305,693	71,176	9,446,905

(a) 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) Paid through Benefit Organizations.

YEAR ENDED 30TH JUNE, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.(b)
Registered Organizations							
No. 30	(c)	47	3	14	11	10	115
Members ..	1,161,017	768,773	322,689	293,747	244,111	117,653	2,907,990
Commonwealth Benefit ..	£ 3,584,404	1,851,694	802,159	638,836	793,818	227,662	7,898,573
Fund Benefit ..	£ 6,194,954	2,184,408	1,093,288	1,136,306	952,343	488,497	12,049,796

(a) An additional benefit of 4s. a day is payable to registered hospital benefit organizations for persons who contribute for a fund benefit of at least 6s. a day but less than 16s. a day, or 12s. a day for those 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. Members who live in one of these territories, or who are overseas, receive their Commonwealth additional benefit and fund benefit through membership of an organization registered in one of the States.

(c) Includes 17 Bush Nursing Hospitals.

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 Hygiene 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.

Following the report, the Commonwealth made an offer of £10 million to the States, as part of a capital expenditure programme of £30 million on increasing and improving patient accommodation. All States accepted the Commonwealth offer.

The following table sets out the amounts which have been paid to the State Governments by the Commonwealth Government each year from 1955–56 to 1959–60.

EXPENDITURE ON MENTAL HOSPITALS BY THE COMMONWEALTH GOVERNMENT.

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
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
1957–58 ..	324,151	545,365	114,104	152,159	29,236	91,384	1,256,399
1958–59 ..	196,831	619,585	118,512	122,328	17,210	45,892	1,120,358
1959–60 ..	359,060	518,271	74,613	91,770	36,799	66,995	1,147,508

Amounts shown in the foregoing table represent payments made during the year shown, under the States Grants (Mental Institutions) Act 1955. The total amounts payable to each State under this Act are in aggregate £10,000,000, to be distributed as follows:—New South Wales, £3,830,000; Victoria, £2,740,000; Queensland, £1,460,000; South Australia, £895,000; Western Australia, £720,000; Tasmania, £355,000.

There are no mental hospitals 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 towards meeting 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 Commonwealth benefit to the contributor, usually at the time it pays its own benefit. Reimbursement of the Commonwealth benefit is subsequently made to the organization by the Commonwealth.

Provision was made from 1st January, 1959, for payments of fund benefit in cases of pre-existing ailments and long-term illnesses.

Substantially increased Commonwealth and fund benefits were introduced for a number of medical services from 1st January, 1960. The largest increases were for major operations, where the combined benefits were doubled.

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 to the National Health Act 1953-59, at rates not less than those provided by the Commonwealth. The organization must be non-profit-making.

In 1959-60, Commonwealth expenditure on medical benefits was £9,205,151.

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 ENDED 30th JUNE, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (a)
Registered Organizations	No. 26	23	6	9	9	10	83
Members	No. 1,341,861	672,039	318,488	262,798	207,677	104,808	2,907,671
Medical Services	No. 7,938,952	4,929,790	2,345,294	2,069,741	1,784,036	557,168	19,624,981
Commonwealth Benefit	£ 3,873,800	2,203,422	1,053,307	983,995	842,856	247,771	9,205,151
Fund Benefit	£ 5,098,217	2,336,721	1,372,994	1,179,515	1,061,817	345,625	11,394,889

(a) No medical benefit organization is registered in the Northern Territory or the Australian Capital Territory. Members who live in one of those territories, or who are overseas, receive their Commonwealth Benefit and fund benefit through membership of an organization registered in one of the States.

The figures for Commonwealth Benefit above, and for Hospital Benefit on page 665, differ from those in the table on page 689 which include payments towards special account deficits in relation to chronic or pre-existing illnesses.

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 Services Act 1948-1949. The service has been continued under the provisions of the National Health Act 1953-1959.

The service provided to eligible pensioners consists of medicines provided free of cost and a medical service of a general practitioner nature such as that ordinarily rendered by a general medical practitioner in his surgery or at the patient's home. Specialist services are not provided. Patients may be charged a small fee by doctors for travelling and attendance outside normal surgery or visiting hours. Doctors participating in the scheme are paid on a fee-for-service basis by the Commonwealth Government.

Persons eligible to receive the benefits of the service are those who satisfy a means test and are receiving an age, invalid or widow's pension under the Social Services Act or a service pension under the Repatriation Act; persons receiving a tuberculosis allowance under the Tuberculosis Act; and dependants of persons eligible for the service.

Since 1st November, 1955, the means test which has applied to new enrolments in the service is the income test that had to be satisfied in order to qualify for a full rate pension as at 31st December, 1953.

The means test does not apply to persons who had applied for and were eligible to receive a pension prior to 1st November, 1955, or to persons receiving a tuberculosis allowance.

At 30th June, 1960, 5,685 doctors were enrolled in the scheme to attend to approximately 739,937 pensioners and their dependants.

During the year ended 30th June, 1960, doctors in the scheme performed 6,839,196 services—visits and surgery consultations—for persons enrolled in the scheme. For these services, they were paid £4,112,637. The average number of services rendered by doctors to each person was 9.4.

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 conducts 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 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. There are twelve members, the chairman being the Commonwealth Director-General of Health. Other 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 an 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 may give up work and undergo treatment. These allowances have been in operation since 13th July, 1950. Since 6th October, 1960, the rates payable have been:

Married sufferer with a dependent wife	£11 2s. 6d. a week.
Each dependent child under the age of sixteen years	10s. a week (additional to child endowment).
Sufferer without dependants	£7 2s. 6d. a week (reducible to £5 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 1959–60:—

TUBERCULOSIS: NEW CASES NOTIFIED, YEAR ENDED 30TH JUNE, 1960.

State or Territory.	Age Group.					Total.
	0–14.	15–34.	35–54.	55 and over.	Not Stated.	
New South Wales ..	80	273	549	511	6	1,419
Victoria	101	235	296	264	1	897
Queensland	31	130	285	320	22	788
South Australia ..	53	63	99	70	..	285
Western Australia ..	18	70	145	168	1	402
Tasmania	17	47	42	28	..	134
Northern Territory ..	1	19	12	15	..	47
Australian Capital Territory .. ..	..	6	6	1	..	13
Australia	301	843	1,434	1,377	30	3,985

Expenditure by the Commonwealth Government during 1959-60 on its anti-tuberculosis campaign is set out in the following table. The figures for "Maintenance" differ from those in the table shown in Chapter XVIII.—Welfare Services, p. 689, because they include administrative costs which are not a charge on the National Welfare Fund.

ANTI-TUBERCULOSIS CAMPAIGN: EXPENDITURE BY THE COMMONWEALTH GOVERNMENT, 1959-60.
(£.)

State or Territory.	Allowances.	Maintenance.	Capital.	Total.
New South Wales	358,178	1,400,000	215,451	1,973,629
Victoria	212,197	1,121,092	25,895	1,359,184
Queensland	201,420	547,749	353,188	1,102,357
South Australia	123,343	634,967	89,816	848,126
Western Australia	70,230	520,455	23,561	614,246
Tasmania	60,104	151,993	21,325	233,422
Northern Territory .. ..	..	..	..	..
Australian Capital Territory .. ..	..	(a) 38,364	..	(a) 38,364
Australia	1,025,472	4,414,620	729,236	6,169,328

(a) Consists of £20,000 for cost of manufacturing B.C.G. vaccine for distribution throughout Australia, and £18,364 for cost of a survey in the Northern Territory.

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 1959-60.
(£.)

Year.	Allowances.	Maintenance.	Capital.	Total.
Total 1947-48 to 1954-55 ..	9,524,723	13,455,750	5,758,975	28,739,448
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
1957-58	1,254,693	4,585,215	2,128,462	7,968,370
1958-59	1,062,609	4,864,186	1,411,062	7,337,857
1959-60	1,025,472	4,414,620	729,236	6,169,328

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 Pittsburgh 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 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 than 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 were 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. Up to 1958, priority was given to children in the 0-14 age group, expectant mothers, and persons subjected to special risk. During 1958, this priority was extended to persons in the 15-44 age group.

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 as soon as possible all persons in the area who give their consent.

By 30th June, 1960, approximately 2,631,200 children under the age of 15 years had completed the course of injections and, in addition, approximately 437,300 children had commenced the course. Also, by the same date, approximately 1,152,200 persons 15 years of age and over had completed the course of injections and 408,800 had commenced the course.

POLIOMYELITIS: NEW CASES NOTIFIED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1956	240	251	112	122	401	55	..	13	1,194
1957	58	13	24	16	8	6	..	..	125
1958	23	60	5	10	2	..	..	..	100
1959	16	30	6	1	3	..	..	..	56
1960	9	24	5	10	4	36	17	..	105

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 free milk. 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, 1960, approximately 1,588,000 children were entitled to receive free milk under this scheme.

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

COMMONWEALTH EXPENDITURE ON MILK FOR SCHOOL CHILDREN SCHEME.

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1950-51 to 1954-55 ..	3,039,636	1,500,766	582,940	562,042	394,629	515,665	1,864	26,993	6,624,535
1955-56 ..	1,042,173	540,000	308,000	184,000	137,211	185,000	1,016	14,048	2,411,448
1956-57 ..	1,094,469	600,901	386,999	200,000	158,659	156,275	1,323	16,146	2,614,772
1957-58 ..	1,139,512	677,000	401,000	212,000	153,600	160,433	860	18,186	2,762,591
1958-59 ..	1,190,048	782,623	474,909	235,879	182,249	181,025	2,799	19,104	3,068,636
1959-60 ..	1,286,672	910,000	480,246	275,000	229,872	156,358	10,493	22,874	3,371,515

The figures in the foregoing table differ slightly from those in the table shown in Chapter XVIII., Welfare Services, page 689, as 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 body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—

- To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research.
- To advise the Commonwealth Government 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 on medical research and on projects of medical research generally.
- To advise Commonwealth and State Governments on 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), three officers of his department, the official head of the Health Department in each State, and the Director of Public Health for Papua and New Guinea, together with ten other members, one each being nominated by 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 Council of the Australian College of General Practitioners, the College of Pathologists of Australia, the Australian Dental Association, the Australian Paediatric Association, the College of Radiologists of Australasia and (jointly) the Australian universities having medical schools. An eminent layman and laywoman, appointed by the Commonwealth Minister for Health, also serve on the council.

The first session of the National Health and Medical Research Council was held at Hobart in February, 1937. The fiftieth session was held at Sydney in October, 1960.

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. In 1959–60, this appropriation was £241,500.

Approved research institutions under this system now number 74. For 1961, grants for projects numbered 87 in the following fields:—bacteriology, biochemistry, biophysics, clinical research, cytology, dentistry, epidemiology, experimental biology, experimental medicine, experimental pathology, haematology, medical chemistry, neurology, neurophysiology, obstetrics, pathology, physiology and pharmacology, tuberculosis and diseases due to viruses. 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 public health, epidemic diseases, occupational health, X-rays, radio-active isotopes, medical statistics, radio-therapy, medical radiation, antibiotics, tropical physiology and hygiene, ultrasonics, maternal and child welfare, nutrition, dental research, nursing and veterinary public health.

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 by encouraging young graduates to take up research work and by securing a continuity and permanence of medical research in Australia.

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

2. The National Biological Standards Laboratory.—The Therapeutic Substances Act 1953 provides the Commonwealth with powers to ensure that therapeutic substances used for the prevention, diagnosis and treatment of disease in man and animals are safe, pure and potent.

The Director-General of Health is authorized under this Act to set up laboratories to test such substances. In 1958, the first steps were taken to establish an Australian National Biological Standards Laboratory in Canberra.

The Laboratory is divided into two main divisions, a Biological Division and a Pharmaceutical Division. The Biological Division consists of the Bacterial Products Laboratory, the Viral Products Laboratory and an Antibiotic Products Laboratory. The Pharmaceutical Division consists of an Analytical Chemistry Laboratory, an Endocrine Products Laboratory and a Pharmacology Laboratory.

All the above laboratories have now been established and have commenced work with the exception of the Bacterial Products Laboratory.

Samples of therapeutic agents available in Australia are taken and tested for compliance with legal standards. A major function of the laboratories is the establishment of such standards where none at present exist or present standards are unsatisfactory.

The laboratories receive international reference standards of biological substances from stocks maintained in London, and will on request issue Australian reference standards which have been assayed against international standards.

3. 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.

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 essential biological products.
- (b) Research and development relating to biological products and allied fields.
- (c) The maintenance of potential production capacity for use in emergencies.

Since their foundation, the Laboratories have greatly extended in size and scope. They now produce some 450 regular products and many special products for use in the diagnosis, prevention and treatment of human and animal diseases. Professional, technical and other staffs total over 1,000.

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. More recently, tissue culture materials have been prepared and supplied to virus research workers throughout Australia.

Continuous research is conducted into the relevant aspects of microbiology 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 a combined vaccine for simultaneous immunization against tetanus, diphtheria, whooping cough and poliomyelitis.

Facilities are maintained for investigation in relation to public health matters which are 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 these 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.

4. 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 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.

These laboratories are unique in that, with the exception of the use of X-rays, they cover all the fields of diagnostic requirements, namely, pathology, public health, haematology, parasitology, mycology, bacteriology and biochemistry.

5. Commonwealth Acoustic Laboratories.—Sponsored by the National Health and Medical Research Council, the Acoustic Research Laboratory, Sydney, investigated inter-communication difficulties and noise problems in aircraft and tanks (1942-46). It then investigated the problem of congenital deafness in children resulting from maternal rubella. The Department of Health took over this laboratory in January, 1947, and subsequently established branch laboratories in all other State capitals.

The Acoustic Laboratories Act 1948 gave the Minister for Health the right to establish, maintain and operate, within the Commonwealth, acoustic laboratories for scientific investigations, including tests in respect of hearing aids and their application to the needs of individuals, and in respect of problems associated with noise as it affects individuals. In 1949, the Government approved the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children. This service has since been extended to those whose hearing loss is discovered after leaving school, but who are still under 21 years of age. The Laboratories' functions also include:—(1) provision and maintenance of hearing aids on behalf of Repatriation and other Commonwealth Departments; (2) assistance to the State Education Departments in measuring deafness by providing and maintaining portable audiometers; (3) the making of hearing tests of Civil Aviation aircrew as required by international agreement; and (4) the making of independent tests on behalf of State and other authorities.

The Sydney Laboratory is responsible for staff training, production of equipment, calibration of hearing-aids and audiometers, and the technical administration of branch laboratories.

6. Commonwealth X-ray and Radium Laboratory.—The Commonwealth Radium Laboratory was established in 1929 by the Commonwealth Department of Health to act as the custodian of radium and to ensure its equitable distribution and satisfactory use.

A total of 10 grams of radium, purchased in 1928 by the Commonwealth Government for use in treatment and research, is 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.

In 1935, the Commonwealth Department of Health extended the work of the Commonwealth Radium Laboratory to include the investigation of the physical problems of X-ray therapy. This laboratory, known since then as the Commonwealth X-ray and Radium Laboratory, is maintained by the Commonwealth Department of Health. It is specifically designed for work with X-rays, radium and radio-isotopes, and is amply provided with all necessary equipment for research work, including a 400 kV. high-tension generator. The free-air chamber which acts as the Australian standard X-ray dosimeter is maintained in the Laboratory.

Since 1939, the functions of the Laboratory have included investigations of the physical aspects of the diagnostic use of X-rays with particular emphasis on miniature radiography and high-kilovoltage techniques.

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 those who work with X-rays and radioactive materials.

A radon service has been operated by the Laboratory since its inception. During the year 1959-60, 32,150 millicuries of radon were 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 23,233 millicuries were issued by the associated centres in Sydney and Brisbane. The corresponding figures for 1958-59 were 66,646 and 23,776 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.

Through the development of atomic energy programmes overseas, supplies of radio-isotopes have been available for use in Australia since 1946. The radio-isotopes can be used medically, either as an alternative to natural radio-active materials such as radium and radon (sealed sources), or they may be administered orally or intravenously, in which case the selective up-take by a particular organ or tissue may be used to determine its condition and, in selected cases, to treat it. In addition, radio-isotopes are used in industry for the investigation of the efficiency of processes, for production control, and as research tools.

The importation of radio-isotopes is restricted under the 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 as the central procurement agency.

During 1959-60, 54 different radio-isotopes were imported for all purposes. This represented 820 separate deliveries from overseas sources of supply. Of this number of shipments, 389 were for medical purposes, 411 for research purposes and 20 for industrial purposes. In 1958-59, the total deliveries were 660, of which 330 were for medical purposes, 284 for research purposes and 46 for industrial purposes. In addition to the 820 deliveries of radio-isotopes arranged by the Laboratory in the year 1959-60, 49 certificates of approval under the Customs (Prohibited Imports) Regulations were issued to permit the entry of radioactive materials imported directly by local firms from their overseas principals. These radioactive materials were for use in industry, medicine and research. In the year 1958-59, the corresponding figure was 55. In addition, in the year 1959-60, 41 certificates of approval were issued to the Australian Atomic Energy Commission to permit the entry of special radio-active materials, including calibrated reference sources, for use within that establishment. Eight shipments of static isotopes were also procured.

Bulk supplies of radio-isotopes for medical purposes are obtained regularly, and these are distributed by the Laboratory as individual doses for use on patients throughout Australia in accordance with 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.

Six different radio-isotopes were imported in the year 1959-60 for medical purposes, labelled compounds of radio-iodine, radio-phosphorus and radio-colloidal gold being in greatest demand. However, the use of radio-colloidal gold for therapeutic purposes is decreasing, as colloidal solutions of chromic phosphate and zirconium phosphate labelled with radio-phosphorus are being used as the preferred alternative. During 1959-60, the demand continued for special compounds labelled with radio-iodine and for radio-chromium, radio-iron and radio-cobalt labelled vitamin B12.

In all, approximately 7,300 individual doses of radio-isotopes were issued by the Laboratory during 1959-60 for use on patients. The corresponding figure for 1958-59 was approximately 6,400.

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. A film badge service to measure the radiation dose received by those exposed to ionizing radiation is maintained. In 1959-60, 21,351 film badges were processed and assessed. The corresponding figure for 1958-59 was 18,049 films.

The Laboratory has an extensive library of special radiological literature and issues library bulletins at appropriate intervals. 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.

Officers of the Laboratory serve on a number of committees, both national and international. The services of the Laboratory are available to all who work with ionizing radiation.

7. 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 School comprises sections of Preventive Medicine, Tropical Medicine, Occupational Health, Environmental Health, Biochemistry, Bacteriology and Pathology, Parasitology, Medical Entomology and Medical Statistics. The Child Welfare section of the Institute of Child Health is located at the School, with which it is closely associated. The Occupational Health Section undertakes surveillance of the health of persons employed at the Small Arms Factory, Lithgow, and at the Munitions Filling Factory, St. Mary's. The library, which includes approximately 17,000 bound volumes and a large collection of official and institutional papers and reports, forms an important information centre in the subjects of public health and tropical medicine.

The work of the school comprises both teaching and investigation. Courses are held for the university post-graduate diploma in public health and the diploma in tropical medicine and hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Courses are also provided in hygiene and social medicine for students of architecture and social studies, in tropical medicine for lay officers, nurses in tropical service, and missionaries, and in industrial health for engineering students. Training is also provided for certain personnel of the armed services, for laboratory workers from various services and institutions, and for post-graduate nursing diploma students.

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. *Limited accommodation and other facilities for investigation can be made available at the school for independent research workers.*

8. Institute of Child Health.—The institute, which was established early in 1950 in association with the School of Public Health and Tropical Medicine, Sydney, is located at the Royal Alexandra Hospital for Children, where a special teaching and research unit with the necessary ancillary services was made available by the Board of the Hospital.

The Director of the Institute is a senior honorary paediatrician on the staff of the Hospital, and thus has access to the 430 beds for teaching purposes. He is also the Professor of Child Health in the University of Sydney.

The Director is required to co-ordinate and control under-graduate and post-graduate teaching in paediatrics and child health, and thus the Institute and its staff are brought into close contact with each group of medical students who attend the Children's Hospital for 10 weeks tuition in paediatrics and child health.

In the 10 years since its foundation, the staff of the Institute has carried out a number of substantial research projects, including the natural history and prevention of rheumatic fever in childhood, accident prevention, endemic goitre, endocrine disorders and stress in children. All told, some 90 scientific papers describing the research work have been published in Australian and overseas scientific journals.

The Institute and its staff have come to be recognized as an authoritative source for advice and information on many matters relating to paediatrics and child health. The Director and senior members have acted as consultants to Medical Schools of Universities and to Commonwealth and State Authorities and on missions for the World Health Organization to a number of foreign countries. At present, the staff consists of the Director, a Senior Medical Officer, two other medical officers (full time), four part-time medical officers, a social psychologist, a social worker, and clerical and stenographic staff.

9. **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 recognized 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 of specifications for dental materials and equipment, 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; 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.

10. **The Australian Institute of Anatomy.**—The Australian Institute of Anatomy is situated in a building erected in Canberra 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 Institute. 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, page 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, a portion of the original collection of anatomical specimens assembled by Sir Colin MacKenzie is displayed, 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 aborigines 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 a 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.

§ 4. Control of Infectious and Contagious Diseases.

1. **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, and, 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 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 the Commonwealth Director of Health, who is a medical officer of the Commonwealth Department 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 to Australia, and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin 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 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. Passengers arriving in Australia by sea are also required to be vaccinated against smallpox, but exemption is granted to those who hold religious convictions against vaccination or who are suffering from a medical condition which makes vaccination undesirable. 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 overseas vessels and aircraft calling at Australian ports during the year ended 30th June, 1960, 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, 1960.

Disease.	Number of Oversea Vessels and Aircraft on which Cases were Found.	Number of Cases of Infectious Disease.	
		Passengers.	Crew.
Amoebic Hepatitis and Colitis	1	1	1
Chicken Pox	17	58	..
Infectious Hepatitis	1	2	..
Infectious Parotitis	2	1	1
Influenza	1	1	3
Leprosy	2	2	..
Measles	21	112	..
Morbilli	3	11	..
Mumps	16	22	2
Paratyphoid	1	1	..
Pulmonary Tuberculosis	1	6	..
Rubella	7	13	1
Scarlet Fever	1	..	2
Syphilis	2	..	2
Varicella	4	4	..
Total	(a) 61	234	12

(a) On some vessels there were 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 ended 30th June.	Number of Oversea Vessels and Aircraft Cleared.		Number of Oversea Vessels and Aircraft on which Cases were Found.	Number of Cases of Infectious Disease.	
	Ships.	Aircraft.		Passengers.	Crew.
1956	2,592	1,417	26	104	4
1957	2,702	1,747	53	216	10
1958	2,658	1,881	61	202	20
1959	2,826	1,938	63	344	9
1960	3,046	2,063	61	234	12

(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.

Of the domesticated animals, only horses, 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, while 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 Animal Quarantine Service is also responsible for the health certification of animals for export to overseas countries in accordance with their various requirements.

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 auspices of the Australian Agricultural Council to discuss problems of animal health and disease control and animal quarantine.

(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, 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. (e) All nursery stock, including bulbs, must be grown in post-entry quarantine. It may only be imported by approved importers who are registered for this purpose. The numbers of plants which may be imported in any one year are limited.

3. *Notifiable Diseases.*—(i) *General.* (a) *Methods of Prevention and Control.* Provision exists in the Health Acts of all States for the compulsory notification of certain infectious diseases and for the application of preventive measures. 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 provide 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. Regulations also provide that persons suspected to be suffering from or to be carriers of infectious disease must submit to clinical and laboratory examination. Persons suffering from certain communicable diseases, for example, small pox and leprosy, may be detained in isolation.

(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 1959 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,
1959.**

Disease.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Acute rheumatism	59	118	129	8	15	*	1	2	332
Amoebiasis	*	3	13	2	2	..	13	..	33
Ankylostomiasis	37	1	63	..	1	..	308	..	410
Anthrax .. ..	*	..	..	..	..	..	..	..	..
Bilharziasis .. ..	*	..	..	..	..	..	..	..	..
Breast abscess	38	160	123	*	*	*	*	7	328
Brucellosis	7	16	..	1	8	1	..	..	33
Chorea	3	12	..	1	2	*	..	..	18
Dengue .. ..	..	..	..	..	1	*	..	..	1
Diarrhoea, infantile	237	609	185	..	26	15	..	36	1,183
Diphtheria	14	14	7	16	48	..	71	..	100
Dysentery, bacillary	*	103	51	61	188	4	99	4	510
Encephalitis	25	45	3	11	..	..	..	..	84
Erythema nodosum .. ..	..	10	..	..	1	..	..	..	11
Filariasis .. ..	*	..	..	..	..	..	..	..	..
Homologous serum jaundice .. ..	*	..	*	..	..	..	..	..	..
Hydatid .. ..	..	19	..	..	..	16	..	..	35
Infective hepatitis	3,183	1,452	762	749	142	21	53	16	6,378
Influenza	*	*	*	1,163	*	*	*	*	1,163
Lead poisoning	*	..	19	2	2	*	..	..	23
Leprosy	1	1	6	..	18	..	49	..	75
Leptospirosis	9	1	134	..	2	*	..	..	146
Malaria .. ..	..	12	46	1	3	..	10	..	72
Meningococcal infection	75	63	34	7	3	24	6	5	217
Ophthalmia	*	*	*	1	50	..	..	15	66
Ornithosis	2	1	*	1	..	..	..	..	4
Paratyphoid fever	9	..	..	..	2	..	..	..	11
Poliomyelitis	16	30	6	..	3	..	..	..	56
Puerperal fever	56	4	60	2	..	..	1	..	126
Q-fever .. ..	..	*	595	*	*	*	*	*	595
Rubella .. ..	..	992	7	87	221	8	25	17	1,357
Salmonella infection .. ..	..	*	*	45	40	*	4	1	90
Scarlet fever	478	907	148	232	60	39	13	4	1,881
Tetanus .. ..	..	8	27	6	5	*	1	1	48
Trachoma	*	..	*	..	656	*	405	..	1,061
Trichinosis .. ..	..	*	*	..	..	..	..	..	..
Tuberculosis	1,166	811	752	283	343	156	42	11	3,564
Typhoid fever	2	8	7	7	8	..	..	..	32
Typhus—flea, mite or tick borne	2	..	11	..	6	..	..	..	19

* 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 is the responsibility of State Health Departments. The necessary powers for the purpose are provided either by a special Venereal Diseases Act or by a special section of the Health Act. These Acts make it obligatory upon the patient to report for and continue under treatment until certified as cured. Treatment of venereal disease must be by a registered medical practitioner. Facilities for treatment of venereal disease free of charge may be arranged at subsidized hospitals or at special clinics. Drugs and instruments required for the treatment of venereal disease may be sold only by a registered pharmaceutical chemist on the prescription of registered medical practitioners.

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, or 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. Examples of organizations included in this category are the National Fitness Organizations, the Royal Flying Doctor Service of Australia, the Red Cross Blood Transfusion Service, and the Lady Gowrie Child Centres.

2. **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 National Fitness 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.

The functions of autonomous National Fitness Councils operating in each State are connected with voluntary leader training, camping and hostels, assisting the work of voluntary youth and amateur sports organizations, and providing advisory services to these organizations.

The six State education departments spend their Commonwealth grants to assist the promotion of physical education programmes in schools and teachers' colleges. This is done mainly through the organization of training courses for teachers and the development of school camping, which in most States is part of the regular school physical education programme. In New South Wales and Victoria, holiday play centres and camps have become a special feature of the programmes, while Queensland has led the way in the provision of school swimming pools financed in co-operation with parent organizations.

In the universities, departments of physical education provide either a diploma course in physical education or a major course in physical education as part of a degree course.

An annual grant of £2,000 is allocated in the Australian Capital Territory, and is distributed on a £1 for £1 basis to youth and sports organizations for the purchase of equipment, the development of coaching schemes, and the extension of club and camp facilities.

3. **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 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 £25,000 to £40,000 per annum for four years from 1st July, 1958. The Commonwealth grant towards capital expenditure was increased from £15,000 to £27,500 per annum for the same period. 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.

4. **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 made 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. In March, 1954, therefore, 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 payments made by the Commonwealth government to the State governments in 1959–60 were as follows:—New South Wales, £36,644; Victoria, £43,691; Queensland, £24,494; South Australia, £16,116; Western Australia, £14,923; Tasmania, £4,925; Total, £140,793.

5. **Lady Gowrie Child Centres.**—In 1940, the Commonwealth Government established a pre-school demonstration centre in each of the six capital cities. These centres are known as the Lady Gowrie Child Centres and are administered by the Australian Pre-school Association for the Commonwealth Department of Health.

The specialized function of the centres is that of demonstration and research, and the programmes are carried out under the supervision of the Federal Pre-school 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.

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.

Fuller information concerning these centres was given in earlier issues of the Year Book (*see* No. 44, p. 536).

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 public hospitals, staff, and accommodation for the year 1958–59 are given in the following table:—

PUBLIC HOSPITALS: NUMBER, STAFF AND ACCOMMODATION, 1958–59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number of Hospitals	269	139	138	65	93	26	4	1	735
Medical Staff—									
Honorary ..	4,217	1,424	30	502	376	89	..	40	6,678
Salaried ..	720	805	778	160	119	126	16	4	2,728
Total ..	4,937	2,229	808	662	495	215	16	44	9,406
Nursing Staff ..	13,261	9,075	5,011	2,467	2,914	1,249	156	239	34,372
Accommodation—									
Number of beds and cots ..	22,620	12,522	11,756	3,994	4,589	2,386	422	255	58,544

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 babies are excluded unless they remain in hospital after their mothers' discharge.

PUBLIC HOSPITALS: IN-PATIENTS TREATED, 1958–59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
In-patients at beginning of year—									
Males ..	6,540	3,599	3,618	1,116	1,444	827	166	64	17,374
Females ..	9,003	5,110	4,143	1,411	1,487	918	126	117	22,315
Persons ..	15,543	8,709	7,761	2,527	2,931	1,745	292	181	39,689
Admissions and re-admissions during year—									
Males ..	177,350	94,190	96,108	32,770	39,762	13,297	3,630	2,629	459,736
Females ..	275,943	158,217	118,951	44,129	46,876	20,923	3,940	4,457	673,436
Persons ..	453,293	252,407	215,059	76,899	86,638	34,220	7,570	7,086	1,133,172
Total in-patients (cases) treated—									
Males ..	183,890	97,789	99,726	33,886	41,206	14,124	3,796	2,693	477,110
Females ..	284,946	163,327	123,094	45,540	48,363	21,841	4,066	4,574	695,751
Persons ..	468,836	261,116	222,820	79,426	89,569	35,965	7,862	7,267	1,172,861
Discharges—									
Males ..	168,667	88,798	92,490	31,068	38,413	12,574	3,521	2,515	438,046
Females ..	268,950	153,975	116,405	42,788	45,884	20,352	3,853	4,391	656,598
Persons ..	437,617	242,773	208,895	73,856	84,297	32,926	7,374	6,906	1,094,644
Deaths—									
Males ..	7,893	5,249	3,417	1,635	1,395	667	110	99	20,465
Females ..	6,164	4,011	2,389	1,223	938	530	56	72	15,383
Persons ..	14,057	9,260	5,806	2,858	2,333	1,197	166	171	35,848
In-patients at end of year—									
Males ..	7,330	3,742	3,819	1,183	1,398	883	165	79	18,599
Females ..	9,832	5,341	4,300	1,529	1,541	959	157	111	23,770
Persons ..	17,162	9,083	8,119	2,712	2,939	1,842	322	190	42,369
Average daily number resident ..	17,422	8,751	7,767	2,643	2,847	1,750	282	197	41,659

In addition to those admitted to the hospitals, there are large numbers of out-patients treated. During 1958–59, there were 1,132,024 out-patients treated in New South Wales, 568,194 in Victoria, 571,013 in Queensland, 96,761 in South Australia, 119,000 (estimated)

in Western Australia, 86,064 in Tasmania, 82,468 in the Northern Territory and 10,167 in the Australian Capital Territory, making an estimated total for Australia of 2,665,691. 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 1958–59 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits Scheme.

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1958–59.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
Revenue—									
Government aid ..	23,222	15,206	10,034	5,130	4,657	1,781	887	421	68,627
Commonwealth Hos- pital Benefits, etc.		2,199	2,993	880	1,177		40		
Municipal aid ..	(a)	20	..	177	7	..	..	..	204
Public subscriptions, legacies, etc. ..	146	1,440	20	104	60	..	..	..	1,770
Fees ..	9,080	4,852	1,034	1,104	1,522	568	39	74	18,273
Other ..	466	434	186	424	121	7	..	..	1,638
Total ..	32,914	24,151	14,267	7,819	7,544	2,356	966	495	90,512
Expenditure—									
Salaries and wages	18,761	10,678	6,615	3,498	3,748	1,532	388	289	45,509
Upkeep and repair of buildings and grounds ..	903	589	290	335	416	49	36	23	2,641
All other ordinary ..	9,054	7,880	6,140	1,917	2,174	786	278	152	28,381
Capital ..	4,118	4,238	1,065	2,116	1,173	623	264	29	13,626
Total ..	32,836	23,385	14,110	7,866	7,511	2,990	966	493	90,157

(a) Included in "Other".

5. **Summary.**—A summary, for the years 1954–55 to 1958–59, 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.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Hospitals ..	709	721	731	737	735
Medical Staff ..	7,738	8,103	8,573	9,094	9,406
Nursing Staff ..	27,566	29,070	31,006	32,436	34,372
Beds and cots ..	52,979	53,550	55,801	56,618	58,544
Admissions during year ..	1,008,955	994,466	1,028,320	1,085,503	1,133,172
Total in-patients (cases) treated	1,046,171	1,032,668	1,065,045	1,123,799	1,172,861
Out-patients (cases) (a) ..	2,651,000	2,587,000	2,583,600	2,641,000	2,665,691
Deaths ..	32,489	31,417	33,267	33,689	35,848
Average daily number resident	38,179	38,341	39,092	40,056	41,659
Revenue .. £'000	(b) 63,998	71,612	82,182	87,692	90,512
Expenditure .. £'000	(b) 64,323	74,568	83,922	86,817	90,157

(a) Partly estimated.

(b) Excludes loan receipts and expenditure for New South Wales.

§ 3. Leper Hospitals.

Isolation hospitals for the care and treatment of persons suffering from Hansen's disease (leprosy) are located at Little Bay, New South Wales; Fantome Island, North Queensland; Derby, Western Australia; and East Arm Settlement, Northern Territory. Special wards for the isolation of leprosy patients have been provided at Fairfield (Victoria) and Wooroloo (Western Australia). Peel Island (Queensland) lazaret was closed down on 5th August, 1959, the patients being transferred to the chronic diseases section of South Brisbane Hospital. At the end of 1960, there were seven cases at Little Bay, 19 at Fantome Island, 159 at Derby, two at Wooroloo, 173 at East Arm Settlement and six at Fairfield. Of the 366 cases, 305 were full-blood aboriginals, 38 were half-caste aboriginals, three were South Sea Islanders, one was an Asian and nineteen were 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. Statistics of mental hospitals (except those relating to revenue and expenditure) include particulars of the two licenced houses in 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 1959. Figures for Victoria and Western Australia relate to 31st December, 1959. Figures for the other States relate to 30th June, 1959.

MENTAL HOSPITALS: NUMBER, STAFF, ACCOMMODATION, 1958-59.

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S. Aust.	W.Aust. (a)	Tas.	Aust.
Number of Hospitals	15	11	5	2	4	1	38
Medical Staff—							
Males	59	110	15	11	6	4	219
Females	8		4	2	..	..
Persons	(c) 67	110	19	13	6	4	219
Nursing Staff and Attendants—							
Males	1,131	1,160	664	229	188	88	3,460
Females	1,173	1,278	518	242	134	90	3,435
Persons	2,304	2,438	1,182	471	322	178	6,895
Accommodation—							
Number of beds and cots ..	13,060	8,872	4,736	2,776	1,681	900	32,025

(a) Year ended 31st December, 1959. (b) Includes the Epileptic Home. (c) In addition, there are 43 visiting specialists who are paid for their services.

3. **Patients.**—Information regarding patients treated during 1958-59 is given in the following table.

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1958-59.

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S.Aust.	W. Aust. (a)	Tas.	Aust.
Number of patients at beginning of year—							
Males	6,722	4,752	2,530	1,387	1,087	382	16,860
Females	7,039	5,048	2,080	1,280	839	375	16,661
Persons	13,761	9,800	4,610	2,667	1,926	757	33,521
Admissions and re-admissions (excluding absconders retaken and transfers from other mental hospitals)—							
Males	1,117	2,199	775	367	191	223	4,872
Females	1,311	1,775	751	345	151	272	4,605
Persons	2,428	3,974	1,526	712	342	495	9,477
Number of persons treated during year—							
Males	7,839	6,951	3,305	1,754	1,278	605	21,732
Females	8,350	6,823	2,831	1,625	990	647	21,266
Persons	16,189	13,774	6,136	3,379	2,268	1,252	42,998
Discharges (including absconders not retaken)—							
Males	604	1,795	615	205	105	195	3,519
Females	796	1,465	507	267	33	210	3,278
Persons	1,400	3,260	1,122	472	138	405	6,797
Deaths—							
Males	436	360	211	121	85	29	1,242
Females	561	415	179	143	79	39	1,416
Persons	997	775	390	264	164	68	2,658
Number of patients at end of year							
Males	6,799	4,796	2,479	1,428	1,088	381	16,971
Females	6,993	4,943	2,145	1,215	878	398	16,572
Persons	13,792	9,739	4,624	2,643	1,966	779	33,543
Average daily number of patients resident—							
Males	5,995	4,040	2,405	1,376	1,000	375	15,191
Females	5,875	4,286	1,903	1,203	706	389	14,362
Persons	11,870	8,326	4,308	2,579	1,706	764	29,553
Number of patients at end of year per 1,000 of population—							
Males	3.61	3.39	3.36	3.06	2.95	2.14	3.34
Females	3.73	3.54	3.05	2.67	2.50	2.42	3.33
Persons	3.67	3.46	3.21	2.87	2.73	2.28	3.33
Average number of patients resident in mental hospitals per 1,000 of population—							
Males	3.21	2.89	3.30	2.99	2.74	2.12	3.02
Females	3.16	3.11	2.73	2.68	2.03	2.37	2.92
Persons	3.19	3.00	3.02	2.84	2.39	2.24	2.97

(a) Year ended 31st December, 1959.

(b) Includes persons treated at the Epileptic Home.

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. These persons have been included in the table above as patients at the end of the year.

4. Revenue and Expenditure, 1958-59.—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 1958-59 this source provided less than 8 per cent. of all their revenue. For a statement on the funds provided by the Commonwealth Government for mental hospitals, *see* para. 3. Mental Hospitals, page 666.

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

MENTAL HOSPITALS: FINANCES, 1958-59.

(£.)

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Australia.
<i>Revenue (excluding Government Grants)—</i>							
Fees of patients	426,001	245,425	81,074	54,680	42,082	12,176	861,438
Other ..	80,236	60,739	10,686	41,548	14,879	1,147	209,235
<i>Total</i>	<i>506,237</i>	<i>306,164</i>	<i>91,760</i>	<i>96,228</i>	<i>56,961</i>	<i>13,323</i>	<i>1,070,673</i>
<i>Expenditure—</i>							
Salaries and wages	2,873,749	3,189,941	1,266,797	571,336	514,207	275,048	8,691,078
Upkeep and repair of buildings, etc.	369,911	295,851	8,802	52,599	49,969	12,067	789,199
All other ..	1,918,127	2,309,261	824,416	396,926	271,831	150,417	5,870,978
Capital(c) ..	714,939	1,574,871	352,551	80,659	55,642	65,914	2,844,576
<i>Total ..</i>	<i>5,876,726</i>	<i>7,369,924</i>	<i>2,452,566</i>	<i>1,101,520</i>	<i>891,649</i>	<i>503,446</i>	<i>18,195,831</i>

(a) Includes Bundoora Hospital, previously excluded. (b) Includes the Epileptic Home.
(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 1954-55 to 1958-59:—

MENTAL HOSPITALS: SUMMARY, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Hospitals	34	35	36	37	38
Medical Staff	144	161	188	206	219
Nursing Staff and Attendants ..	5,748	6,030	6,470	6,761	6,895
Beds	29,690	30,089	30,617	31,587	32,025
Admissions	5,722	7,524	8,276	9,244	9,477
Discharged as recovered, relieved, etc.	3,021	4,235	5,282	6,288	6,797
Deaths	2,276	2,529	2,672	2,468	2,658
Patients at end of year	31,223	32,453	32,775	33,521	33,543
Average daily number of patients resident	28,012	28,639	29,032	29,323	29,553
Revenue (excluding Government Grants)(a)	£ 862,221	803,873	916,201	1,026,689	1,070,673
Total Expenditure(a)	£ 13,397,004	15,579,361	17,553,438	18,236,114	18,195,831

(a) See footnote (a) above.

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 practice. 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.

State.			1955.	1956.	1957.	1958.	1959.
NUMBER.							
New South Wales	..	..	13,422	13,767	13,741	13,761	13,792
Victoria	..	..	7,934	8,713	9,187	9,800	9,739
Queensland(a)	..	..	4,704	4,735	4,657	4,610	4,624
South Australia	..	..	2,613	2,658	2,592	2,667	2,643
Western Australia	..	..	1,790	1,814	1,845	1,926	1,966
Tasmania	..	..	760	766	753	757	779
Australia	..	..	31,223	32,453	32,775	33,521	33,543
PER 1,000 OF POPULATION.							
New South Wales	..	..	3.85	3.87	3.79	3.73	3.67
Victoria	..	..	3.11	3.31	3.40	3.54	3.46
Queensland(a)	..	..	3.50	3.45	3.33	3.25	3.21
South Australia	..	..	3.19	3.13	2.97	2.97	2.87
Western Australia	..	..	2.67	2.65	2.63	2.70	2.73
Tasmania	..	..	2.42	2.40	2.30	2.26	2.28
Australia	..	..	3.38	3.43	3.39	3.39	3.33

(a) Includes persons treated at the Epileptic Home.