DISCLAIMER

Users are warned that this historic issue of this publication series may contain language or views which, reflecting the authors' attitudes or that of the period in which the item was written, may be considered to be inappropriate or offensive today.

CHAPTER XI.

PUBLIC HYGIENE.

§ 1. Public Health Legislation and Administration.

Reference to the various public health authorities, Commonwealth and State, their functions, and the legislation administered, may be found in earlier issues of the Official Year Book (see No. 22, pp. 493 to 495).

§ 2. Inspection and Sale of Food and Drugs.

Legislation in force in all States provides for the inspection of food and drugs with the object of assuring that all those goods which are sold shall be wholesome, clean and free from contamination or adulteration; and that all receptacles, places and vehicles used for their manufacture, storage or carriage shall be clean. For further particulars in this connexion, and with respect also to the sale and custody of poisons, reference should be made to Official Year Book, No. 22, pp. 495–497.

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

1. **General.**—In earlier isssues (see No. 22, pp. 497 to 499), allusion is made to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally.

2. **Number of Dairy Premises Registered.**—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cattle thereon. With regard to the latter the figures are not comparable as milch cows only are collected in some States, while others return all cattle depastured on registered premises.

DAIRY PREMISES REGISTERED, AND CATTLE THEREON, 1934.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.
Premises registered ..	23,596	30,472	26,152	11,329	(b)	5,512
Cattle thereon ..	1,155,800	479,716	927,399	(a)88,027	(b)	(b)

(a) Estimated. (b) Not available.

§ 4. Control of Infectious and Contagious Diseases.

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

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and uniformity of procedure has been established in respect of all vessels, persons, and goods arriving from overseas ports or proceeding from one State to another, and in respect of all animals and plants brought from any place outside Australia. In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States; in the meantime the administration of interstate quarantine of animals and plants is left in the hands of the States. The Commonwealth possesses stations in each State for the purposes of human and of animal quarantine.

Further information concerning the chief provisions of the Act and its administration is given in some detail in earlier issues (see No. 22, p. 500).

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

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

(ii) *Details by States.* In earlier Year Books (see No. 22, p. 501) information was given concerning the notification, etc., of diseases under State headings.

(iii) *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 the year 1934 the diseases which are notifiable in each State and Territory and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk. No case occurred in Australia of plague, cholera, small-pox or yellow fever.

DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS FOR THE YEAR ENDED 31st DECEMBER, 1934.

Disease.	N.S.W. (i)	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Fed. Cap. Ter.
Anchylostomiasis	*	..	2	..	..	..	..	..
Anthrax	*	..	1	..	..	..	*	..
Beri-beri	*	*	*	*	*	*	3	*
Bilharziasis	*	..	..	..	..	..	*	..
Cerebro-spinal Fever	28	24	2	2	4	..	.	1
Chickenpox	*	*	*	1,999	*	*	*	*
Coastal Fever	*	*	28	*	*	*	*	*
Dengue Fever	*	*	*	*	*	*	5	*
Diphtheria	6,290	5,376	1,534	582	974	491	..	111
Dysentery	*	20	..	2	11	18	..	..
Encephalitis Lethargica	6	19	2	1	2	2	*	..
Erysipelas	*	*	*	183	*	*	..	*
Filariasis	*	*	..	..	..	..	..	..
Hydatid	*	16	*	*	*	*	*	..
Influenza	*	*	*	1,280	*	*	73	*
Leprosy	..	..	9	..	..	..	3	..
Malaria	*	3	(h) 998	3	22	..	36	..
Measles	*	*	*	1,249	*	*	1	5
Mumps	*	*	*	26	*	*	*	*
Poliomyelitis (a)	91	182	16	4	5	32	..	..
Puerperal Fever (b)	239	52	16	43	16	15	..	..
Scarlet Fever (c)	2,176	1,834	607	643	152	362	1	21
Tetanus	*	21	*	*	*	*	*	*
Tuberculosis (d)	1,506	1,027	170	370	287	157	4	2
Typhoid Fever (e)	138	59	89	20	87	19	..	..
Typhus (Endemic) (f)	7	..	7	8	63	..	..	..
Weil's Disease (g)	*	*	5	*	*	*	*	*
Whooping Cough	*	*	*	1,313	*	*	*	99

(a) Includes Poliomyelitis Acute Anterior, Infantile Paralysis and Polioencephalitis. (b) Includes Puerperal Pyrexia. (c) Includes Scarlatina. (d) Includes all forms except in New South Wales, Western Australia and Northern Territory where only pulmonary tuberculosis is notifiable. (e) Includes Enteric Fever and Paratyphoid. (f) Includes Brill's disease, Endemic Typhus and Tropical Typhus. Cases found and recorded are all of the mild form known as Brill's disease or Endemic Typhus. (g) Notifiable in Queensland since 25th August, 1934. (h) Includes 987 cases among natives of Torres Straits and Cape York Peninsula. (i) Provisional figures.

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

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

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued.

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

(ii) *Details by States.* A statement of the preventive provisions in each State, together with certain statistical data, appeared in earlier Year Books (see No. 22, pp. 503 and 504).

4. Vaccination.—(i) *Demand for Vaccine.* In New South Wales there is no statutory provision for compulsory vaccination, though in all the other States such provision exists. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth serum laboratories in Melbourne. A moderate demand exists for the vaccine in Victoria, but in the other States the normal requirements are small, as is also the proportion of persons vaccinated.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 504 and 505) information was given concerning the provisions regarding vaccination in each State.

5. Commonwealth Serum Laboratories.—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot," was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories," and is administered by the Commonwealth Department of Health. The list of biological preparations produced by the laboratories has been extended to cover a wide range, thus forming a valuable national provision for the protection of public health.

6. Health Laboratories.—The Commonwealth Department of Health has established health laboratories at Rabaul in New Guinea, at Lismore in New South Wales, at Bendigo in Victoria, at Townsville, Toowoomba, Rockhampton and Cairns in Queensland, at Port Pirie in South Australia, at Kalgoorlie in Western Australia, and at Launceston in Tasmania. A laboratory is in course of erection at Darwin, Northern Territory.

The laboratory at Rabaul, which until 1930 was carried on in conjunction with the hookworm campaign, and was working in close co-operation with the health organization of the New Guinea Administration, was formally transferred to the Administration at the beginning of 1930.

The Bendigo Laboratory, which was the first of these laboratories to be established, was opened in 1922. Besides carrying on the ordinary diagnostic and educational work of a health laboratory, it possesses an X-ray equipment, and undertakes the examination, diagnosis, and treatment of persons suffering from miner's disease and tuberculosis.

By arrangements between the Commonwealth and Western Australian Governments a special medical survey of persons engaged in the mining industry in Western Australia was carried out in 1925–26 by the Commonwealth Health Laboratory at Kalgoorlie.

A further arrangement provided for the re-examination annually of mine employees in the Kalgoorlie district, and by means of a mobile X-ray unit in outlying districts. This work is still being carried out.

7. **Industrial Hygiene.**—The Industrial Hygiene Division of the Commonwealth Department of Health was established in December, 1921. Its objects were the collection of reliable data, the investigation of industrial conditions affecting health, and the issue of advice to employers and employees for the improvement of conditions of work and for the safeguarding of health. Publications were issued dealing with the scope of industrial hygiene, and with health hazards in industry. With a view to the adoption of a concerted scheme of action and a uniform basis for standards and records throughout Australia, conferences of delegates from the State Health and Labour Departments and the Commonwealth Department of Health were held in 1922, 1924, and in 1927. This Division ceased to exist with the reorganization of the Department in April, 1932.

A special article entitled " Industrial Hygiene in Australia " will be found in Official Year Book No. 18, pp. 522 to 555.

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

§ 5. Tropical Diseases.

1. **General.**—The remarkable development of parasitology in recent years, and the increase in knowledge of the part played by parasites in human and animal diseases, have shown that the difficulties in the way of tropical colonization, in so far as these arise from the prevalence of diseases characteristic of tropical countries, are largely removable by preventive and remedial measures. Malaria and other tropical diseases are coming more and more under control, and the improvements in hygiene and the production of new synthetic drugs for treatment which science has accomplished, have resulted in a new outlook on the question of white settlement in countries formerly regarded as unsuitable for colonization by European races. In Australia the most important aspect of this matter is at present in relation to such diseases as hookworm, filariasis, dengue fever and malaria, which, although practically unknown in southern Australia, occur in many of the tropical and sub-tropical parts.

A Division of Tropical Hygiene of the Commonwealth Department of Health was established to deal with these diseases and other aspects of tropical hygiene. This Division ceased to exist as such with the reorganization of the Department in April, 1932.

2. **Transmission of Disease by Mosquitoes.**—Information under this heading has appeared in earlier issues (see No. 22, pp. 506 and 507).

3. **Control of Introduced Malaria and Bilharziasis.**—Reference to this subject may be found in earlier Year Books (see No. 22, p. 507).

4. **Hookworm.**—Reference to this subject may be found in earlier Year Books (see No. 25, pp. 416 and 417).

5. **Australian Institute of Tropical Medicine.**—The Australian Institute of Tropical Medicine was founded at Townsville in January, 1910. From 7th March, 1921, to 3rd March, 1930, when it was merged in the School of Public Health and Tropical Medicine, Sydney University, the Institute was administered by the Commonwealth Department of Health, and a full account of its activities from its foundation up to 1922 will be found in Official Year Book No. 15, pp. 1010–1012.

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

Since 1922 a number of investigations has been carried out, including the physiology of white persons in the tropics, the causes of obscure tropical fevers, a sociological survey of certain tropical areas of Queensland, the destruction of mosquito larvae and the control of mosquitoes in the larger centres of population, tropical diseases among the aboriginals on Palm Island and throughout the whole coastal area northwards to Thursday Island, leprosy among aboriginals in the Northern Territory and Queensland littoral, the prevalence of filariasis in Cairns, Yarrabah Mission Station, Port Douglas, Mossman and Innisfail, and several foci of malaria in tropical Queensland. Courses of instruction in tropical medicine and hygiene commence in May of each year, and continue for four months. Ten publications dealing with various aspects of tropical medicine, etc., have been issued.

7. **Royal Commission on National Health, etc.**—Information concerning the following subjects may be found in previous Year Books (see No. 22, pp. 509 and 510) :—(*a*) Royal Commission on National Health appointed by the Commonwealth Government in 1924 ; (*b*) Travelling Study Tours under the League of Nations ; (*c*) International Sanitary Convention ; (*d*) Far Eastern Epidemiological Bureau, Singapore ; and (*e*) International Pacific Health Conference.

§ 6. Organization for the Control of Cancer.

The persistent increase in cancer mortality has led to the development in Australia of a national organization directed towards the control of this disease. Treatment centres, fully equipped to carry out investigation and treatment by all modern methods have been formed at the principal hospitals. A large amount of radium, purchased in 1928 by the Commonwealth Government for use in treatment and research, has been distributed on loan to the treatment centres. Treatment is available to all requiring it irrespective of ability to pay. The work is co-ordinated by the Commonwealth Department of Health. Records of treatment and the results obtained are kept by all treatment centres on uniform lines and are collected and analysed. Close co-operation is maintained between research workers, physicists and bio-chemists and the medical men engaged in the clinical investigation and treatment of the disease so that problems are mutually investigated. An annual conference is held at which those actively engaged in the campaign against the disease meet for the discussion of problems and the determination of lines of action. The report of this conference is published by the Commonwealth Department of Health and is widely distributed.

At the Melbourne University the Commonwealth Government maintains a radium laboratory for the purposes of the production of radon for use in treatment, the construction and repair of radium apparatus and for research into problems of treatment and protection. During the year 1934 a total of 23,210 millicuries of radon were issued by this laboratory and used in the treatment of cancer.

Realizing the essential importance of accuracy in determining the quality of X-rays used in the treatment of cancer and in measuring the dosage of the radiations delivered to a patient under treatment, the Commonwealth Government provided the apparatus necessary for the calibration of dosage meters and voltage meters throughout Australia. This apparatus was constructed at the Commonwealth Radium Laboratory at the University of Melbourne, and is now available for use. Meantime the cancer treatment centres are equipping themselves with the necessary measuring instruments. Treatment by means of X-rays has thus been placed on a more scientific footing.

§ 7. Medical Inspection of School Children.

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

2. **New South Wales.**—A complete system of medical inspection of school children came into operation in this State in 1913. The scheme includes, in country districts, the medical examination of every child at least twice during the usual period of school attendance (6–14 years). In the metropolitan area, the scheme provides for the full medical examination of all "entrants" and children 13 years of age, "entrants" being taken to mean 1st class in Infants' Departments, and the review of all children found defective between those ages. Parents are notified of the defects found, and urged to have them treated. In the metropolitan area, these notices are reinforced by "follow up" work of school nurses, who also arrange hospital and clinic treatment in many cases.

In 1934 the staff comprised 11 medical officers (including one oculist), 9 dental officers, 8 dental assistants, 9 school nurses, and 7 clerical officers. Two medical officers were engaged for the greater part of the year in country districts, and 9 in the metropolitan area, and of the 9 travelling dental clinics (8 of which were each staffed by a dental officer and dental assistant), 4 were engaged in metropolitan schools and 5 in country districts. One of the metropolitan officers was also engaged half-time at the clinic attached to the Out-patients Department of the Royal Alexandra Hospital for Children.

Special attention is paid to the supervision of the health of High School pupils, both girls and boys, and these schools in the metropolitan area are visited annually by medical officers for this purpose. Girls' High Schools in Newcastle and Maitland, and the High School at Armidale are also visited.

Health supervision is maintained by a whole time woman medical officer at the Sydney Teachers' College, and part-time by a woman officer at the Armidale Teachers' College. Every student, on entering the Colleges, is medically examined, and any defects found must be remedied before final acceptance. A course of lectures on hygiene, which every student attends, is given by the medical officers.

The medical and psychological examination of delinquent boys brought before the Children's Court is carried out by a male medical officer, and 1,037 boys were examined in 1933, and 853 in 1934. The examination of certain girl delinquents is undertaken by a woman medical officer, who also carries out the examination and health supervision of children in residence at the Glenfield Special School for backward children.

From time to time mass investigations are made into the prevalence and distribution of certain abnormal conditions affecting the health of school children, such as goitre, acute rheumatism, trachoma, feeblemindedness, crippling, left-handedness, stammering, etc.

Of the 41,407 children fully examined during 1934, 16,626 or 40.2 per cent. were notified for treatment of physical defects, including 7,274 (17.5 per cent.) for defects other than dental. In addition, 27,931 children were "reviewed", of whom 8,036 or 28.8 per cent. were notified for medical and dental defects, and 2,700 fully or partly examined apart from the usual routine inspection. Of the latter 1,292 or 47.9 per cent. were notified.

In 1934 also 223 children were medically examined at Stewart House Preventorium and the Christmas Camp organized under the Far West Children's Health Scheme.

3. **Victoria.**—The system adopted provides for the medical examination of each child once every three years during its school life. With the doubling of the medical staff in 1925 the Department concentrated on country work, and medical inspection has been undertaken since that date in country and rural districts, reaching the most remote corners of the State. Medical inspection is now undertaken in all high schools, in practically all country State schools, and in about half of the metropolitan State schools, but in only a few of the registered and institutional schools.

Each school is visited once in every three years, and each child examined. In schools with an attendance of 70 or more, the older boys are examined by a medical man and the older girls by a medical woman. At this inspection every child is first weighed and measured, vision and hearing tested, then undressed to the waist and medically examined as for life assurance, but with a fuller investigation of many hygienic factors, which at that age greatly influence the health and growth of the child. Opportunity is also taken to teach the child healthy habits, how to correct faults, also to get its co-operation for the remedying of defects found. A school nurse employed by the Department is devoted to "follow-up" work, *i.e.*, visiting the homes and getting treatment for children found defective by the school medical officers. Owing to the smallness of the staff her work is confined to the metropolitan area.

In addition to the medical examination, each child in those schools visited by the school dentist receives dental treatment on entrance to school (if under 8 years of age), and each year thereafter, until it is 12 years of age, when it is left dentally fit. The present staff is arranged so that 3 dentists and 4 dental attendants are always on duty at the Melbourne Dental Centre, where children from the infant classes in the inner metropolitan schools are brought by the teacher for dental treatment. A dentist with a dental attendant and equipment travels along the railway line far enough to give one year's work, using practically every town large enough to provide a day's work as a base. The school committees of the outlying schools are notified of the visit, and the parents are invited to bring to the base all children eligible for treatment, *i.e.*, all children under 8 years of age, and all other children treated by the school dentists on previous visits. The time of another dentist is fully occupied treating the children in the three largest country centres, Bendigo, Ballarat, and Geelong. In each of these cities a centre with a dentist, dental attendant, and equipment is established for about four months of the year, where children from the infant classes of the neighbouring schools are brought by the teacher or parents. Three dentists with dental attendants are in charge of three fully-equipped dental vans, each of which has an itinerary which it completes each year.

The staff of the medical branch consists of 7 full-time medical officers, 8 dentists, 10 dental attendants, and 1 school nurse.

During the year ended 30th June, 1934, 41,674 children and 1,240 teachers were medically examined, and 34,302 children received dental treatment. In addition, 6,720 homes were visited by the school nurse.

4. **Queensland.**—Medical inspection of schools and school children is carried out by two part-time medical officers. These officers, as far as possible, examine children for cardiac and pulmonary conditions, and in addition, make a thorough examination of all children referred to them by the school nurses; 3,486 were thus medically examined in 1934, and of these 1,672 were notified as suffering from some condition requiring correction.

The nurses now number eleven. Each nurse is assigned a group of schools, and she is instructed to make a list at each school of those children who she considers should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During the year 1934, school nurses examined 19,336 children. In the metropolitan area the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment.

The Department has in its employ a staff of fourteen dentists. These officers are each assigned a district, and such district is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental inspector, considers advisable. During the year 1934, 25,855 children were examined; 34,587 extractions were performed; and there were 44,930 fillings and 17,576 other treatments.

The Medical Branch, under the direction of the Chief Medical Officer, consists of three sections known as the Medical, Dental and Nursing Sections. These constitute the School Medical Service of the State.

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

A Committee of Hookworm Control to deal with anchylostomiasis duodenale and Necator Americanus infestation throughout the State has now been established, the personnel being as follows : Chairman—The Public Health Commissioner for Queensland ; Members—The Chief Medical Officer, Department of Public Instruction, and the Chief Protector of Aborigines for Queensland. The work of the committee has resulted in a large reduction of this dangerous menace in the Northern Coastal Belt. The personnel at work in the Hookworm Area now consists of a Microscopist, two Health Inspectors and five trained nurses.

In order to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, a Rail Dental Clinic equipped on the most modern lines has been constructed. A motor car is carried on a railway waggon at the rear for use at each stopping place to visit the surrounding villages served by the rail centre. Two road motor clinics are also being provided. One will function in the south-western portion of the State with Charleville as a base, while the other will operate in the central-west and the north-western territory using Longreach as the centre. The staff of each clinic consists of one qualified dental surgeon and one motor mechanic.

5. **South Australia.**—The system of medical inspection in force requires the examination of all children attending primary, central, high and technical high schools. Children in the primary schools are examined in grades I., IV. and VII. ; in the central schools in grade X., while high school children are examined in their second and fourth years. Reports are furnished to the parents of any remediable defects found during these examinations. The medical inspectors meet the parents after the examination of the children and give an address on the prevention and treatment of the conditions which were found during the inspection. After these lectures the parents are given an opportunity to ask questions regarding their children. When there is an epidemic or a threatened epidemic in a district, similar lectures are given and special visits paid to all the schools in that locality. All students are examined before they enter the Teachers' College. Courses of lectures in Hygiene and in First Aid are given to these students.

The medical staff consists of a principal medical officer, two medical inspectors and a trained nurse. A psychologist, two dentists and two dental assistants are attached to the Medical Branch. The psychologist, in addition to examining retarded children and supervising their work in the opportunity classes, lectures to the students at the Teachers' College, and examines children referred to her by the Children's Court, by the Women Police, or by the Children's Welfare Department.

During the year 1934, 17,467 children were examined by medical inspectors ; of these 474 required notices for defective vision, 85 for defective hearing, and 892 for tonsils and adenoids. Eight hundred and seventeen children were examined by the psychologist. Research work is being undertaken in left-handedness, stammering and colour-blindness.

6. **Western Australia.**—Under the Public Health Act 1911-1922 the medical officers of health appointed by the local authorities became medical officers of schools and school children. In the Health Department there are two full-time medical officers for schools, whose duty is to conduct medical examinations, and two school nurses are employed. During 1934, 13,950 (6,930 country and 7,020 metropolitan) children were examined. These figures do not include re-examinations.

7. **Tasmania.**—Tasmania was the first State in Australia to provide for the medical inspection of State school children, its system of inspection having been initiated in 1906. During the year 1931, however, for financial reasons, medical inspection ceased, and the services of all doctors were terminated.

At the present time (1935), two part-time medical officers conduct examinations of school children in Hobart and Launceston, and in addition four nurses visit the homes to advise the parents as to the treatment of defects disclosed by the medical examination. Prior to 1931 the various municipal health officers were employed as medical inspectors visiting country schools, and, in the case of epidemics, these officers paid special visits when required. Country schools were visited by medical officers about once a year. There are four full-time dental officers—working at dental clinics in Hobart and Launceston, and visiting the smaller country schools.

8. **Federal Capital Territory.**—By arrangement education facilities are provided by the Education Department of New South Wales. The Commonwealth Department of Health, however, took over from the State in 1930 the medical inspection of school children and carried out examinations of entrants and those leaving during 1930. No statistical information is available for that year, but a complete examination of school children was made in 1931. The number of children examined was 1,234, and some evidence of a pathological condition was found in 69.7 per cent. In 47.6 per cent. some pathological condition of the nose or naso-pharynx was found ; 38.2 per cent. had defective teeth ; in 4.4 per cent. the eye required attention, and in 1.4 per cent. the ear ; and in 2 per cent. the heart showed evidence of a departure from normal.

§ 8. Supervision and Care of Infant Life.

1. **General.**—The number of infantile deaths and the rate of infantile mortality for the last five years are given in the following table, which shows that during the period 1930 to 1934 no less than 24,755 children died in Australia (excluding Territories) before reaching their first birthday. With few exceptions the rate of mortality in the metropolitan area is consistently greater than that for the remainder of the State. Further information regarding infantile mortality will be found in Chapter—Vital Statistics :—

INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1930.	1931.	1932.	1933.	1934.	1930.	1931.	1932.	1933.	1934.
NUMBER OF INFANTILE DEATHS.										
New South Wales	1,099	850	686	630	732	1,499	1,225	1,154	1,109	1,277
Victoria ..	853	713	630	549	637	691	636	551	599	605
Queensland ..	227	210	215	180	181	530	444	483	553	524
South Australia ..	256	167	149	129	151	227	163	163	157	150
Western Australia	218	176	164	118	136	212	179	191	172	183
Tasmania ..	66	59	48	52	45	176	160	137	135	144
Australia (*b*) ..	2,719	2,175	1,892	1,658	1,882	3,335	2,807	2,679	2,725	2,883
RATE OF INFANTILE MORTALITY.(*a*)										
New South Wales	50.03	44.53	39.01	36.80	44.26	49.70	42.78	42.26	40.96	47.65
Victoria ..	50.80	47.88	47.67	40.68	48.42	42.30	41.19	38.67	40.21	41.24
Queensland ..	39.23	40.84	50.00	41.57	42.36	40.30	34.99	36.96	40.01	40.04
South Australia ..	54.72	40.46	38.70	31.77	39.89	42.78	32.92	34.90	32.44	32.09
Western Australia	51.40	46.10	47.54	34.65	41.25	42.75	37.84	42.30	38.49	40.63
Tasmania ..	60.61	58.76	48.83	48.87	40.54	47.61	42.58	39.05	38.69	42.86
Australia (*b*) ..	49.84	45.25	43.61	38.14	44.64	45.31	39.98	39.80	39.73	42.97

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

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

2. **Government Activities.**—In all the States acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Government Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded-out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (See also in this connexion Chapter X.—Public Benevolence.) Under the provisions of the Maternity Allowance Act 1912–1934, a sum of four pounds is payable to the mother in respect of each confinement at which a living or viable child is born, provided the total income of the claimant and her husband for the period of twelve months preceding the date of the birth did not exceed £208. Since 1st August, 1934, subject to certain provisions, the maximum sum payable was raised to £5, and the income limit to £299. Further particulars regarding Maternity Allowance are given in Chapter XVI.—Public Finance.

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

(ii) *Details by States.* In earlier issues of the Year Book (See No. 22 pp. 515 and 516) information, with certain statistical data, concerning the activities of institutions in each State may be found.

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

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1934.

Heading.	New South Wales.	Victoria. (b)	Queensland. (b)	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory. (b)	Total.
Baby Health Centres—								
Metropolitan No.	46	69	5	39	14	2	3	178
Urban-Provincial and Rural No.	85	82	11	10	10	9	..	207
Total No.	131	151	16	49	24	11	3	385
Attendances at Centres .. No.	439,133	414,007	125,149	93,200	73,716	29,674	4,078	1,178,957
Visits paid by Nurses .. No.	78,704	68,117	11,206	31,918	15,570	10,694	337	216,546
Bush Nursing Association, Number of Centres	55	66	12	(a) 29	4	17	..	183

(a) District Trained Nursing Society. (b) Year ended 30th June.

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the figures for the years 1929 to 1933 :—1929, 822,312 ; 1930, 919,893 ; 1931, 1,150,619 ; 1932, 1,200, 380 ; and 1933, 1,232,887.