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TASMANIA

DEPARTMENT OF PUBLIC HEALTH

REPORT

OF THE

ACTING SECRETARY FOR PUBLIC HEALTH, TASMANIA

FOR THE

YEAR ENDED 31ST DECEMBER, 1948.

Presented to both Houses of Parliament by His Excellency's Command.

TASMANIA:
H. H. PIMBLETT, GOVERNMENT PRINTER, HOBART.

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ANNUAL REPORT, 1948.

Department of Public Health,
Hobart, 26th September, 1949.

SIR,

I HAVE the honour to present the Annual Report of the Department of Public Health for the year ended 31st December, 1948, and in doing so desire to acknowledge the valued co-operation of members of the Directorate, whose reports are submitted separately under the various sections set out below, together with vital statistics supplied by the Deputy Commonwealth Statistician:—

Section I.—Report of Director of Public Health:
Section II.—Report of Director of Hospital and Medical Services:
Section III.—Report of Director of Tuberculosis:
Section IV.—Report of Director of Mental Hygiene:
Section V.—Vital Statistics supplied by the Deputy Commonwealth Statistician.

During the year, owing to the increased activities of the Department, it was necessary to make several new appointments to the staff. These included Mr. W. E. Laughlin to the position of Inspecting Accountant, Dr. G. E. Sibthorpe as Medical Officer at Perth Sanatorium, and Miss M. T. Noall as Psychiatric Social Worker.

Dr. C. L. Park resumed duty as Director of Public Health, after an absence of twelve months with the Commonwealth Government, assisting with the organisation of the medical services under Commonwealth Social Services Legislation.

Miss Anita Osmond was appointed Nutrition Officer in place of Miss M. G. Rouse, resigned.

In May, 1948, the Department suffered a grievous loss in the death of Mr. R. H. Parkes, Senior Clerk, after thirty-seven years of loyal and faithful service.

STAFF.

In concluding this brief report, I desire to express my appreciation of the services rendered by members of the staff during the year.

I am also grateful for the help and advice so readily given on numerous occasions by officers of other Departments.

I have, &c.,
T. E. PARRY,
Acting Secretary for Public Health.

The Hon. the Minister for Health.

SECTION I.—REPORT OF DIRECTOR OF PUBLIC HEALTH FOR THE YEAR ENDED 31ST DECEMBER, 1948.

VITAL STATISTICS.

Population.—The statistics for the State, issued by the Tasmanian Branch of the Commonwealth Bureau of Census and Statistics, show that the mean population for 1948 was 264,579, an increase of 6760 over the previous year.

Births and Birth Rate.—The number of births was 6979, a decrease of 161 as compared with 1947. The birth rate per 1000 mean population was 26·38, being 1·31 lower than in 1947.

Death Rate.—The death rate was 9·55 per 1000, an increase of 0·38 as compared with 1947.

Maternal and Infant Mortality.—There were only four deaths notified as due to childbirth, viz. two to puerperal haemorrhage and two to puerperal eclampsia. In addition there were three due to other toxaemias of pregnancy. The infant mortality was 27·7 per 1000 births, a slight increase on the 1947 figure of 27·3 per 1000 births.

Stillbirths.—There were 179 stillbirths, being a percentage of stillbirths to births and stillbirths of 2·50.

Principal Causes of General Mortality.—The ten principal causes of death were:—

Cause of Death.	Number of Deaths.	Death Rate per 100,000 Persons Living.
1. Heart disease (organic)	750	283
2. Cancer (all forms)	294	111
3. Pneumonia and broncho-pneumonia	180	68
4. Accident or negligence	151	57
5. Cerebral haemorrhage	146	55
6. Malformations and diseases of early infancy	139	53
7. Paralysis and other nerve diseases	124	47
8. Nephritis (Bright's Disease)	98	37
9. Other diseases of circulatory system	97	37
10. Other diseases of digestive system	88	33

Public Health Administration.

The responsibility for carrying out the provisions of the Public Health Act and Food and Drugs Act is placed on the local authorities, except in those areas which have entered into an arrangement, which covers seventeen municipalities. In these districts, certain of the responsibilities are undertaken by the Department, and the health inspectors come under the direct control of the Department in regard to their work of health inspection.

It cannot be said that all municipalities are showing a due sense of responsibility in carrying out their obligations, and the question arises whether it would not be better to group certain neighbouring municipalities into areas for the purpose of health control. Municipal boundaries may be essential for local government administration, but for uniform health administration such boundaries can create difficulties.

Many of the municipalities receive a relatively small sum from health rates, and, in consequence, health inspection forms only a minor part of the functions of one municipal officer.

Medical Officers of Health.—Every municipality appoints a medical officer of health, but populations, with one or possibly two exceptions, are too small for full-time appointments. The American Public Health Association advocates a full-time medical officer of health, with special training in health administration for a population of 50,000 persons, whilst the World Health Organisation has now under consideration a proposal that a full-time specialist medical officer of health be provided for every population of 30,000 persons. Even in Hobart, with a mean population for 1948 of 58,696, the medical officer of health gives limited part-time service only. It is not possible in the circumstances outlined to be satisfied with the way in which public health services are carried out in the State as a whole. The report of the Chief Health Inspector (Appendix I.) gives details of the wide range of duties performed by officers of the division under the Public Health, Food and Drugs, and Places of Public Entertainment Acts.

Staff.—The Health Inspector for the north (Mr. T. Orr), stationed at Launceston, having reached the retiring age, relinquished his duties, leaving behind a record of valuable and faithful service, of which he can be proud.

As the Chief Health Inspector points out, there is an acute shortage of qualified health inspectors, and this has made extra demands on the Departmental inspectors, who have had to undertake duties that the inspectors of local authorities should carry out. Arrangements have now been commenced to institute a course of study for candidates in the State who are desirous of qualifying as health inspectors.

Bacteriolytic Tanks.—The large number of applications for permission to instal these tanks is noticeable. Applications receive careful investigation in regard to detail, to ensure that installation, if approved, will not create a nuisance. A warning is necessary, however, that these tanks do at times require attention, and should not be expected to function indefinitely without supervision.

Places of Public Entertainment Act.—A specially appointed committee examines all plans submitted in accordance with the requirements of this Act, and reports to the Director of Public Health.

Poliomyelitis Committee.—The possibility of an outbreak of poliomyelitis led to the appointment of a special committee to consider all steps that should be taken should an epidemic develop. Preparatory plans were drawn up and arrangements made for the Committee to meet if called upon.

Food and Drugs Act.—The legislation introduced during the year 1947, by which a person charged with an offence is entitled to have brought before the Court in proceedings any person to whose act or default he alleges the commission of the offence was due, has proved a valuable aid, particularly in cases of milk adulteration, in sheeting home the offence to the person alleged to have committed it.

Milk Act.—With the proclamation of the Milk Act, it was considered desirable by the then Minister for Health (May, 1948) to convene a conference of representatives of the Milk Board, Agricultural Department, Public Health Department, and Hobart City Council to consider the authority to be exercised by the bodies named. The arrangement arrived at in this regard continued in operation throughout the year.

Report of Government Analyst.—This report (Appendix II.) contains much interesting information, and from it the following points are taken:—

Milk Samples.—Out of 417 samples received, 65, or 15·5 per cent, were under legal standard, 18 were adulterated with water, seven were deficient in fat, and 40 were below legal standard in total solids and/or solids not fat.

Vitamin Content.—The Analyst's Branch is not yet equipped for determination of certain vitamins (A, B and D), for the presence of which claims are made in preparations on sale to the public. It is anticipated that the necessary equipment will be ordered in the near future.

Water Samples.—A number of samples of rain water from household tanks were found to contain zinc in considerable quantity. This was due to the action of sulphur fumes on the galvanised iron of roofs. A contributory cause was the

moisture in the atmosphere which, condensing on the roofs, produced zinc sulphate, which was washed into the tanks when rain fell. Enquiry failed to elicit any particulars of illness directly due to the ingestion of the zinc sulphate, although complaints were received that the taste of the water was altered and milk was curdled when added to tea made with this water. Action was taken to reduce the fumes at the Zinc Works, as well as the sulphur content, and with the onset of more normal weather and provision of fresh water the complaints ceased.

Food Standards Committee.—This Committee meets at intervals to consider questions requiring attention in regard to the fixing of standards for foods and drugs. An important development during the year was the revision of the standards prescribed under the Food and Drugs Regulations in respect of fruit juice products. A standard was also set up for berry fruits, and the Department carried out an intensive and detailed inspection of berry fruits and pulp last season, to ensure compliance with these standards.

Notifiable Infectious Diseases.

The return of infectious diseases for the year 1948 is given in Table A., together with comparative figures for the two preceding years. The noticeable features are a further reduction in the number of cases of diphtheria and a complete absence of notifications of typhoid fever during 1948.

Diphtheria.—From the whole State only 60 notifications of diphtheria were received, and one death occurred. Of the 60 cases, 17 were notified from Launceston Municipality and 8 only from Hobart Municipality.

Seasonal Influence.—Thirty-eight of the cases were notified during the first four months of the year, and of these 14 occurred in February, which is the month when schools re-open following the long vacation.

Age Distribution.—Eleven cases were notified in children under the age of five years, 21 in children in the 5-10 year age group, 12 in persons in the 10-20 year age group, and 15 in persons in the 20-45 year age group.

These figures are small, but suggest that immunisation against the disease, in addition to having an influence on the incidence in young children, is tending to affect the less protected older age groups.

Immunisation.—Increased activity has been shown by local authorities in immunisation against the disease, and a gratifying feature is the tendency to offer immunisation to the children of pre-school age. In Hobart schools, immunisation has continued as a routine. The Hobart City Council undertakes the responsibility for the medical service, and the Public Health Department that for nursing assistance. In the past four years, 2736 school children in the Hobart area have received three injections of diphtheria toxoid, and the effect of this is reflected in the small number of notifications of the disease. The Glenorchy Municipal Council also carries out immunisation in the schools in that municipality, with nursing assistance from the Department. At the Moonah Child Welfare Centre, immunisation has been regularly carried out among the infants who are brought to the centre.

Whooping Cough.—Although this is not a notifiable infectious disease, a campaign for immunisation against whooping cough has been urged on local authorities and medical practitioners by the Department. Vaccine is made available free of cost to local authorities. The Federal Department of Health supplies vaccine to such bodies free of cost, whilst the State Health Department provides a free supply of combined diphtheria toxoid and whooping cough vaccine. Local authorities are urged to carry out vaccination before the children reach the age of twelve months, and, if possible, by the time they are six months old. Four of the five deaths that occurred as a result of whooping cough took place in the first year of life.

Scarlet Fever.—There was a further decrease in the number of cases of scarlet fever, only 67 being notified as compared with 118 in 1947, 231 in 1946, and 260 in 1945. Cases were notified in every month of the year.

Age Distribution.—Forty-seven of the total occurred in the first ten years of life; 20 of these cases being in children under five years of age, and 27 in children between the ages of five and ten years.

Tuberculosis.—Tuberculosis in all forms was responsible for the notification of 188 cases during the year under review. Thickly populated centres show the highest incidence, e.g. 63 cases were notified from Hobart, 32 from Launceston, and 20 from Glenorchy. Details will be found in the report of the Director of Tuberculosis.

Acute Anterior Poliomyelitis.—Sporadic cases to the number of 7 were notified, one of which was definitely an imported case which developed on board ship before reaching Tasmania.

Age Distribution.—Four of the cases were under five years of age and three between the ages of ten and twenty years.

Cerebro-spinal Meningitis.—Notification of six cases was received from five different municipalities.

TABLE A.

RETURN showing Number of Cases of each Notifiable Infectious Disease notified to the Department of Public Health during the Year 1948, *together with Comparative Figures of the Aggregate of such Diseases for the Years* 1947 *and* 1948.

Municipality.	Diphtheria.	Scarlet Fever.	Tuberculosis (All Forms).	Puerperal Fever.	Puerperal Pyrexia	Cerebro-Spinal Meningitis.	Acute Anterior Poliomyelitis	Bacillary Dysentery.	Total, 1948.	Total, 1947.
1 Beaconsfield ...	2	1	4	...	...	...	2	...	9	23
2 Bothwell	...	...	2	...	...	1	...	...	3	2
3 Brighton	...	...	1	...	...	...	...	...	1	3
4 Bruny	...	...	1	...	...	...	...	...	1	2
5 Burnie.....	...	...	7	...	...	...	1	...	8	13
6 Campbell Town	1	...	...	...	...	...	...	...	1	3
7 Circular Head	...	...	1	...	...	...	...	...	1	4
8 Clarence	...	2	4	...	...	...	...	...	6	12
9 Deloraine.....	3	...	2	...	...	...	...	...	5	3
10 Devonport	2	1	6	1	...	...	...	...	10	17
11 Esperance	...	...	...	...	...	...	...	...	...	2
12 Evandale.....	...	1	...	...	...	...	...	...	1	3
13 Fingal	...	...	4	...	...	1	...	...	5	5
14 Flinders	...	...	2	...	1	...	...	...	3	2
15 George Town ...	1	...	1	...	...	...	...	...	2	...
16 Glamorgan	...	...	...	...	...	...	...	...	...	...
17 Glenorchy.....	4	5	20	...	...	...	...	...	29	30
18 Gormanston ...	...	...	1	...	...	...	...	...	1	...
19 Green Ponds ...	...	...	...	...	...	...	...	...	...	1
20 Hamilton.....	...	...	...	...	...	...	...	...	...	1
21 Hobart.....	8	28	63	2	...	1	1	...	103	127
22 Huon	3	2	2	...	...	...	...	...	7	5
23 Kentish	...	...	1	...	...	...	...	...	1	1
24 Kingborough ...	8	2	7	...	...	...	...	...	17	8
25 King Island ...	...	...	...	...	...	...	...	...	...	1
26 Latrobe	...	...	1	...	...	...	...	...	1	6
27 Launceston	17	13	32	1	...	2	2	...	67	61
28 Lilydale	5	...	...	...	...	...	...	...	5	1
29 Longford	...	1	1	...	...	...	1	..	3	8
30 New Norfolk ...	1	4	7	...	...	...	...	...	12	20
31 Oatlands	...	...	1	...	...	...	...	1	2	4
32 Penguin	...	...	...	...	...	...	...	...	...	1
33 Port Cygnet ...	...	1	1	...	...	...	...	...	2	1
34 Portland	...	...	1	...	...	...	...	...	1	1
35 Queenstown ...	...	1	4	...	...	...	...	...	5	4
36 Richmond	...	...	1	...	...	...	...	...	1	1
37 Ringarooma ...	...	...	...	...	...	...	...	...	...	3
38 Ross.....	...	...	1	...	...	...	...	...	1	...
39 Scottsdale	...	...	...	...	...	...	...	...	...	2
40 Sorell	...	1	4	...	...	..	...	...	5	1
41 Spring Bay.....	1	...	...	...	...	1	...	...	2	1
42 St. Leonards ...	1	1	...	...	...	...	...	...	2	3
43 Strahan	...	...	...	...	...	...	...	...	...	...
44 Tasman	1	...	...	...	...	...	...	...	1	1
45 Ulverstone (Leven)	1	...	1	...	...	...	...	...	2	7
46 Waratah	...	...	...	...	...	...	...	...	...	1
47 Westbury	...	...	...	...	...	...	...	...	...	10
48 Wynyard (Table Cape)	1	3	1	...	1	...	...	...	6	3
49 Zeehan.....	...	...	3	...	...	...	...	...	3	4
TOTALS.....	60	67	188	4	2	6	7	1	335	412

VENEREAL DISEASES.

There has been a slight fall in the number of notifications, but this is in the incidence of gonorrhoea. On the other hand, as seen from Table B., the number of cases of primary syphilis has risen and, despite the fact that 25 cases were notified in males, only two were notified in females. The number of cases of secondary syphilis has also risen slightly as compared with the year 1947, but not considerably as compared with 1946. Table C shows age grouping.

Organisation.—Treatment is carried out chiefly at public hospitals, and by medical practitioners to a small extent. An attempt is made by hospital authorities to obtain the source of infection, and such information is forwarded to the Department. Where possible, a Departmental officer visits the contact and serves an order to attend the hospital for examination and, if necessary, treatment. In other cases, orders are served by the Police, whose services in this connection are much appreciated.

TABLE B.

Return showing Number of Cases of Venereal Disease Notified to Department of Public Health during the Years 1947-1948.

	1947.			1948.		
	Males.	Females.	Total.	Males.	Females.	Total.
Gonorrhoea	139	13	152	87	17	104
Primary Syphilis	15	9	24	25	2	27
Secondary Syphilis	17	10	27	13	18	31
Congenital or Tertiary Syphilis	8	8	16	10	8	18
Seriological Positive Syphilis	1	2	3	....	....	....
Gonorrhoea and Syphilis	....	....	....	....	1	1
Ophthalmia Neonatorum	....	....	....	....	1	1
	180	42	222	135	47	182

TABLE C.

Return showing Age and Sex Distribution of Cases of Venereal Disease Notified to Department of Public Health during the Year 1948.

	Under 1 Year		1-5		5-10		10-15		15-20		20-25		25-30		30-35		35-40		40-45		45-50		50-55		55-60		60-65		65-70 & over		Age not stated		Total		Grand total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea	...	...	...	...	...	...	...	...	7	6	35	3	20	4	9	3	7	1	...	...	5	...	...	...	2	...	...	...	2	...	2	...	87	17	104
Syphilis Primary	...	...	...	...	...	...	...	...	2	...	12	2	3	...	4	...	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	25	2	27
Syphilis Secondary	1	...	...	...	...	...	...	...	...	2	1	6	2	7	2	1	1	...	3	...	...	...	...	1	1	1	1	...	...	...	1	...	13	18	31
Syphilis Congenital or Tertiary	...	...	1	...	2	2	...	1	...	...	...	1	1	1	...	1	...	...	2	...	...	1	1	2	1	...	1	...	...	...	...	...	10	8	18
Gonorrhoea & Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Ophthalmia Neonatorum	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Totals	1	1	1	...	2	2	...	1	9	8	46	12	26	12	15	5	11	1	6	...	5	1	1	3	4	1	2	...	2	...	3	1	135	47	182

Maternal Welfare and Child Health.

This includes (*a*) the Maternal and Infant Welfare Section, which provides pre-natal services at the child welfare centres, and subsequent advice to the mother and supervision of the infant for the first few years of life, and (*b*) the School Medical and Dental Service, which is available to supervise the general health of the pre-school child as well as the child attending ordinary school.

Medical examination of these children is carried out at intervals throughout the school life from 5-16 years. Supervision by school sisters continues at regular intervals throughout the year, whilst treatment, where required, is given by private medical practitioners and at public hospitals.

Dental attention is given, within the limits of existing staff, to children attending school.

Maternal and Infant Welfare.

Pre-natal advice and attention is given by the child welfare sisters to expectant mothers who come to the centres. Recently, the special educational pre-natal centre, which had been carried on by the Department at Hobart since 1945, was closed. As a result, the number of pregnant women attending the Royal Hobart Hospital Pre-natal Centre increased considerably. Arrangements have now been made for pre-natal work to be carried on by the hospital staff at one child welfare centre in conjunction with the sisters attached to the Department's staff. The need for better pre-natal facilities is everywhere recognised if the infantile mortality is to be further reduced. The Medical Committee of Inquiry into the decline of the birth rate, in its recent report, stressed this need in its first recommendation, which reads—

> "1. As skilled pre-natal care is an essential need of every pregnant woman, every effort should be made to ensure she receives this, which should provide obstetrical and medical supervision and advice upon nutrition and other matters of hygiene.
> 2. A vigorous nation-wide publicity campaign should be inaugurated, telling of the grave effects of imperfect pre-natal supervision on the ultimate welfare of both mother and child.
> 3. The appropriate authorities should establish pre-natal clinics throughout the community for the general hospital class of patients."

Two of the Committee's conclusions are quoted, viz.—

> "1. There are still too many pregnant women attending our large pre-natal clinics whose dietary intake is insufficient in quantity and incorrectly balanced for optimal health.
> 2. One of the deterrents to regular clinic attendance was found to be the long wait necessary before medical attention could be received. When this delay was shortened women were more than willing to make regular visits. Social service facilities within pre-natal clinics are still inadequate."

It is pointed out that a combined effort between hospital pre-natal clinics and the Maternal and Infant Welfare Section of the Department can achieve better results than either can, acting separately.

The Department has on its staff a nutrition expert, whose knowledge and experience are available to all sections of the public, but particularly to pregnant women and those whose daily work brings them into contact with the preparation of balanced diets. It is noted that the committee referred to above pointed out that "the keen interest and co-operation of these patients (pregnant women) in accepting dietary advice is most noteworthy, and provides one way in which the health and nutritional status of pregnant women could be improved". The Committee also found that "a pre-natal diet sufficient in quantity and correctly balanced pre-disposes towards the production of more efficient lactation". The importance of this cannot be stressed too much. If the mother's pre-natal nutrition is satisfactory, then the infant, during its most vulnerable period of life, is more likely to be assured of a sufficient supply of the best type of food by natural processes. It is saved the difficulty of artificial feeding, with its attendant digestive upsets and added risk of infection. The Departmental Child Welfare Sisters have special training and experience in infant welfare and, during visits to the homes of pregnant women, and when the latter visit the centres, can advise on the composition of a correctly balanced diet. From Table D., showing the work performed by child welfare centres for 1948, it is seen that 2065 visits were paid to expectant mothers, whilst 2296 visits to the centres were made by these mothers. From the Hobart Pre-natal Centre alone, 971 visits to expectant mothers were made, and 1226 visits were made by pregnant women to the centre.

Special stress has been laid on pre-natal work because of its influence on infant mortality to the reduction of which the work of this section is directed. In 1948 the number of infant deaths under one year was 193, giving an infant mortality rate of 27·7 per 1000 live births. An analysis of the return shows that no less than 143 of these deaths occurred in the first month of life and 114 in the first week. The infantile mortality rate in the first month (neo-natal period) was thus 20·5 per 1000, and the rate in the subsequent eleven months was 7·2 per 1000. These deaths in the first month are, in general, ascribed to pre-natal and natal causes, and have not shown the steady decline that has occurred in the case of deaths in the period 2-12 months, which are mainly due to environmental influences affecting the child directly. McNeil has drawn attention to the close association between the causes of stillbirths and neo-natal deaths, particularly those occurring in the first week of life. He points out that the same lethal processes that destroy infant life during birth continue to operate with great power after birth, and indeed are responsible for the majority of neo-natal deaths. During 1948 there were registered 179 stillbirths, being 2·5 per cent of births and stillbirths for the year. If we add the number of stillbirths to the neo-natal deaths we arrive at a figure of 322 deaths occurring during pregnancy or as a result of pregnancy. Or if we combine the number of stillbirths and deaths in the first week of life we obtain a figure of 293 deaths. Adopting McNeil's

suggestion, we obtain a figure of 293 deaths as approximately due to pre-natal and natal causes, and 79 deaths due to post-natal causes. Obviously our attack must be concentrated on the pre-natal causes, and the two directions are more efficient and more general pre-natal care and improved natal care. Victorian figures for 1948 show that the neo-natal death rate has fallen to 17 per 1000. In a recent issue of the British Medical Journal, a record is given of the work done at Halifax General Hospital over a period of two years. Here, out of 5000 deliveries after 28th week, the neo-natal death rate was 11·91 per 1000, which shows that under special conditions deaths in this period can be considerably reduced. Again, W. I. Hayes, in an article in the Medical Journal of Australia, recorded a neo-natal death rate of 15·3 per 1000 at the Women's Hospital, Melbourne, among 18,477 births of booked patients delivered in the period 1943-48. On the other hand, among 3553 unbooked patients the neo-natal death rate was 68·7 per 1000. Evidence presented in the recent report of the Ministry of Health on neo-natal mortality and morbidity was to the effect that during the war years 152,000 pregnant women, selected as normal cases, were delivered in emergency maternity homes in reception areas with a neo-natal mortality rate of only 9·6 per 1000. In 30,000 confinements in maternity homes upgraded to admit abnormal cases the neo-natal mortality rate was 13·9 per 1000. The report, after consideration of the statistical evidence on the neo-natal mortality and morbidity in conjunction with stillbirths, states, " It is thus apparent that a more general application of present day knowledge of obstetrics and paediatrics by the medical and nursing professions, and by those responsible for social services and for administering hospital and domiciliary midwifery services, would result in a further considerable reduction in the neo-natal mortality rate. Similarly, if every pregnant woman received first-class medical and nursing supervision during pregnancy and labour, the stillbirth rate could also be appreciably decreased ". The conclusions of the two committees quoted show the way by which present neo-natal and stillbirth rates could be reduced by one-third to one-half. In this State, on 1948 figures, the saving would be from 100-160 lives.

Nursing Staff.—There have been a number of staff changes during the year, and this has made uniformity of practice difficult to maintain. At the end of the year there was 18 permanent and 14 temporary sisters, a total of 32 sisters, together with two mothercraft nurses.

Centres and Work Performed.—New centres were opened at Perth, Ridgley, Bicheno, Cornwall, Dunalley, Dynnyrne, and Snug. These are all open for sessional periods only. The total number of centres was 65, including four mobile units and one special pre-natal centre (now closed). Table D. gives a summary of the work of the staff, from which it will be seen that, whilst there has been a decrease in home visits, caused by temporary staff shortages, the attendances of pregnant women at centres have increased.

Conference.—A conference with paediatricians was held to consider revision of the booklet on infant feeding.

Medical Attendants.—For a very long time the staff at the centres has felt the need for a medical adviser, to whom to refer infants in case of need. This has now been overcome in Hobart and Launceston by the part-time appointment of a paediatrician in each city. It is proposed to make a similar appointment in Burnie.

Immunisation.—Immunisation against diphtheria and whooping cough is carried out regularly once weekly at the Moonah Centre.

Mobile Units.—These units are doing excellent work and meet the needs of parents who are too far away to either attend a centre or be visited from one.

Mothercraft Home.—This Home, situated in Hobart, is the one centre in the State under the control of the Department for the training of infant welfare and mothercraft nurses. At Calvary Private Hospital there is another centre for training students, at which they undergo the prescribed courses. At the Mothercraft Home, 34 infant welfare certificates were granted during the year, and ten mothercraft certificates to trainees who had followed the prescribed course and passed the necessary examinations. At Calvary Hospital, seven infant welfare certificates and seven mothercraft certificates were granted to successful candidates.

Mothercraft Lectures.—Lectures in mothercraft were given in a number of schools (29) by the staff of the Child Welfare Section, and 335 certificates were issued to children who succeeded in passing the necessary examination.

TABLE D.

SUMMARY of Work Performed by Child Welfare Sisters during the Year 1948.

No. of Centres.	Visits to Individual New-born Babies.	Subsequent Visits to Mothers.	Visits to Expectant Mothers.	Total Visits to Homes.	Individual Babies Attending Centres.	Total Attendances at Centres by Babies.	Total Attendances at Centres by Expectant Mothers.	Total Attendances at Centres.
65 (Including 1 Pre-natal Centre and 4 Mobile Units)	6160	27,752	2065	35,977	16,985	111,528	2296	113,824

Pre-natal Centre.

	Attendances at Centre.	Visits to Homes.
Pre-natal	1226	971
Post-natal	221	149
Casual	119	51
TOTAL	1566	1086

TABLE E.

INFANTILE Mortality.

Number of Deaths under One Year in Tasmania for the last 20 Calendar Years.

	Year.																			
	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.	1941.	1942.	1943.	1944.	1945.	1946.	1947.	1948.
Deaths..... ...	256	242	219	185	187	189	231	227	202	195	203	176	255	224	226	199	159	207	195	198

Infantile Mortality Rate (Deaths per 1000 Births).

Year.	Tasmania.	N.S.W.	Victoria.	Queensland.	South Australia.	Western Australia.	New Zealand.	North. T'tory	Aust. Cap. Ter.	Aust.
1929.....	53·1	56·6	47·2	46·1	40·9	56·2	34·1	18·9	19·6	51·1
1930	50·6	49·8	46·5	40·2	48·3	46·7	34·5	70·4	24·4	47·2
1931.....	46·0	43·5	44·5	36·6	36·5	41·5	32·2	83·3	37·3	42·1
1932.....	41·2	41·1	43·0	40·3	36·6	44·6	31·2	75·9	26·5	41·3
1933.....	41·1	39·3	40·4	42·6	31·9	36·8	31·6	94·6	53·4	39·5
1934.....	42·3	46·4	44·6	40·6	35·6	40·9	32·1	68·1	7·5	43·6
1935.....	51·8	39·4	41·2	37·8	34·9	40·2	32·3	83·3	47·3	39·8
1936.....	49·6	43·5	42·3	36·3	31·1	42·2	31·0	26·6	25·3	41·1
1937.....	41·7	40·7	36·7	35·6	33·1	37·5	31·2	30·3	14·5	38·1
1938.....	39·7	41·8	34·2	41·3	30·5	33·8	35·6	58·8	35·0	38·3
1939.....	40·6	41·0	35·6	34·7	34·8	40·7	31·1	65·2	23·9	38·1
1940.....	35·2	39·0	39·5	35·3	35·5	46·5	30·2	46·2	7·0	38·7
1941	49·0	43·8	36·2	39·1	32.5	35·3	29·7	83·3	16·4	39·7*
1942.....	42·2	40·1	41·8	34·8	39·5	36·8	28·7	43·5	25·5	39·5*
1943.....	40·4	36·2	35·8	37·8	36·7	32·6	31·3	75·0	18·6	36·3*
1944.....	38·3	30·7	33·0	31·3	29·0	32·7	30·1	22·5	23·4	31·3*
1945.....	27·5	30·6	28·0	29·8	28·0	29·6	28·0	55·6	12·4	29·4*
1946	30·2	30·2	27·2	29·3	27·1	31·1	26·1	30·3	19·3	29·0*
1947	27·3	29·8	26·3	30·8	24·3	30·9	25·0	43·5	19·9	28·5*
1948	27·7	30·3	23·9	27·9	29·6	25·6	(a)	35·7	23·4	27·7

(a) Not available. * Excludes New Zealand.

TABLE F.

INFANT MORTALITY IN TASMANIA.

DEATHS under One Year and under One Month (Neonatal) for Years 1930, 1938 and 1948.

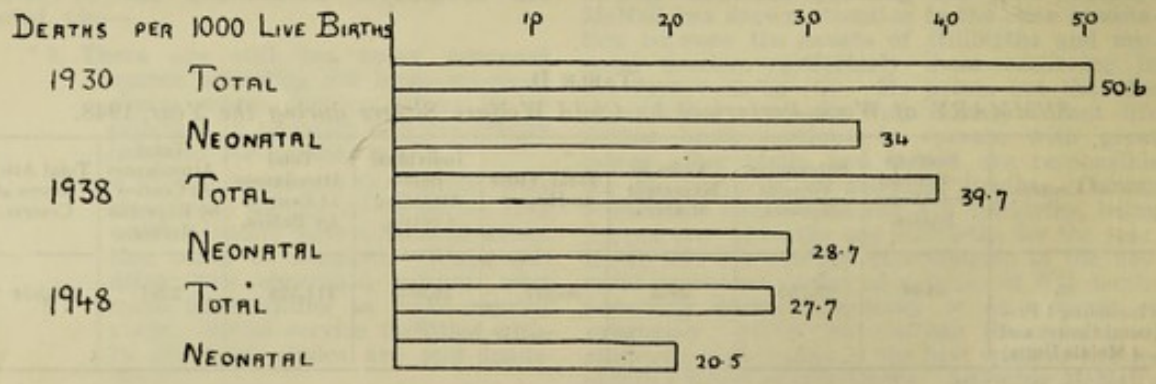

TABLE G.

INFANT MORTALITY IN TASMANIA.

CAUSES of Death of Infants under One Year for Years 1930, 1938 *and* 1948.

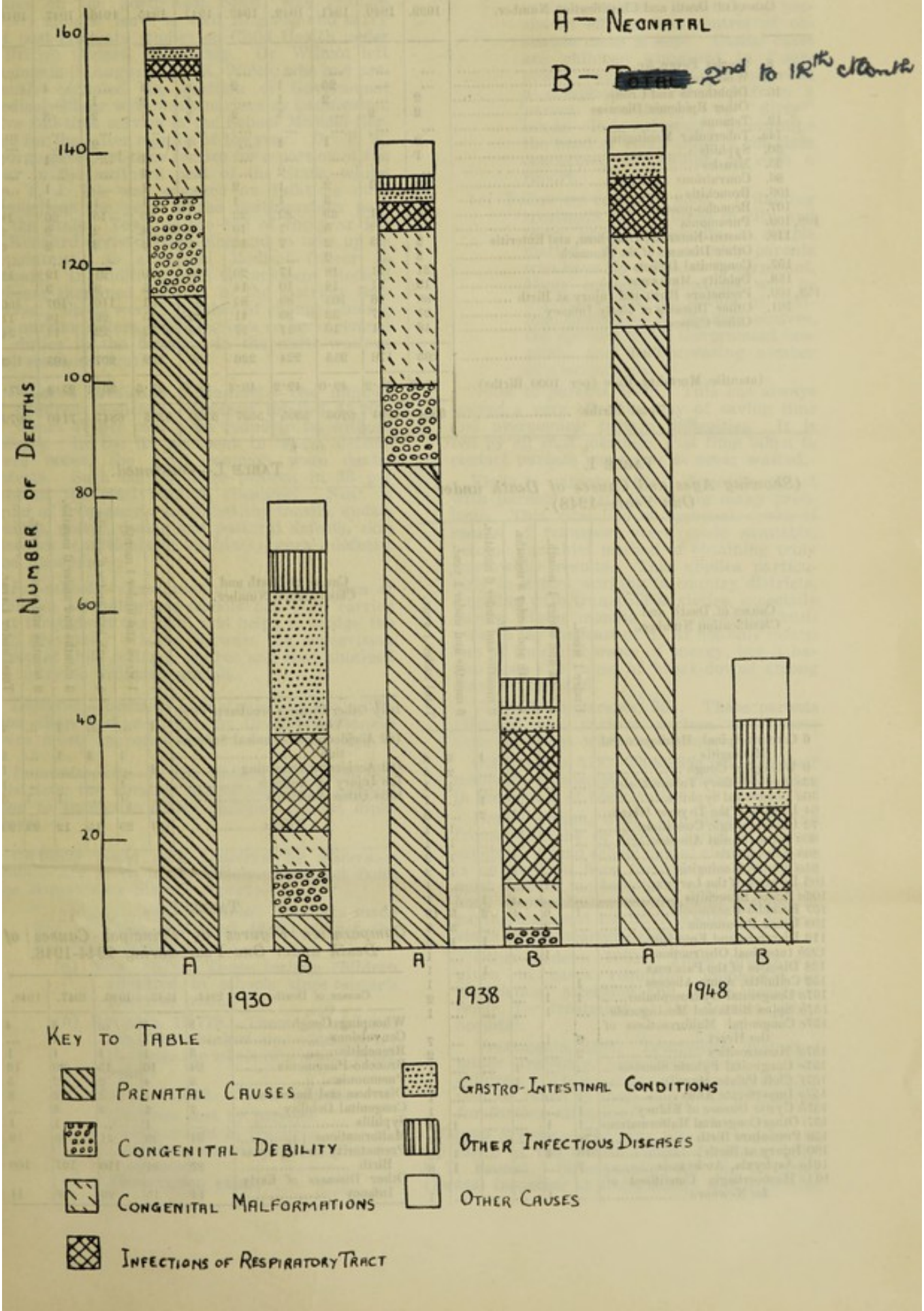

TABLE H.

TABLE showing the Principal Causes of Death of Children under 1 Year of Age in Tasmania in each Year from 1939 to 1948.

Causes of Death and Classification Number.	1939.	1940.	1941.	1942.	1943.	1944.	1945.	1946.	1947.	1948.
8. Scarlet Fever, &c.	...	...	...	...	...	...	...	...	..	...
9. Whooping Cough	...	...	25	1	2	8	1	...	4	4
10. Diphtheria and Croup	2	...	2	1	...	1	2	1	...	...
Other Epidemic Diseases	2	2	...	5	2	3	1	2	3	4
12. Tetanus	...	...	...	...	...	...	..	...	...	...
14a. Tubercular Meningitis	2	...	1	1	...	1	...	2	...	...
30. Syphilis	1	...	...	...	...	...	1	...	1	1
35. Measles	...	...	...	2	...	...	1	...	...	...
86. Convulsions	3	2	2	1	2	...	1	...	1	...
106. Bronchitis	1	...	3	1	1	3	1	1	1	1
107. Broncho-pneumonia	20	21	23	32	22	24	10	15	20	18
108, 109. Pneumonia	4	2	5	7	10	3	4	2	2	5
119. Gastro-Enteritis, Diarrhœa, and Enteritis	2	3	2	7	13	5	4	2	2	6
Other Diseases of the Stomach	3	...	2	...	...	...	...	...	...	...
157. Congenital Defects	31	21	18	17	20	24	20	21	19	19
158. Debility, Marasmus	13	11	18	10	14	7	5	3	3	...
159, 160. Premature Birth and Injury at Birth	80	76	105	89	82	87	81	110	107	100
161. Other Diseases of Early Infancy	21	27	33	33	41	14	15	26	18	11
Other Causes	18	11	16	17	17	19	12	22	14	24
Total	203	176	255	224	226	199	159	207	195	193
Infantile Mortality Rate (per 1000 Births)	40·6	35·2	49·0	42·2	40·4	38·3	27·5	30·2	27·3	27·7
Total Births	5004	4994	5206	5305	5597	5200	5785	6847	7140	6979

TABLE I.

(Showing Ages and Causes of Death under One Year—1948).

Causes of Death and Classification Number.	Under 1 week.	1 week and under 1 month.	1 month and under 3 months.	3 months and under 6 months.	6 months and under 1 year.	Total under 1 year.
6 Cerebro-Spinal Meningococcal Meningitis	..	...	..	1	3	4
9 Whooping Cough	...	...	2	...	2	4
22*a* Acute Miliary Tuberculosis	...	...	...	...	1	1
30*d* Congenital Syphilis	...	...	...	1	...	1
64 Diseases of the Thymus Gland	...	...	1	2	...	3
72 Haemorrhagic Conditions	...	...	...	...	1	1
80*a* Intra-Cranial Abscess	...	...	...	...	1	1
80*b* Encephalitis	...	...	1	...	1	2
81*a* Simple Meningitis	...	...	1	...	1	2
105 Diseases of the Larynx	...	1	...	...	...	1
106*a* Acute Bronchitis	...	...	...	1	...	1
107 Broncho-Pneumonia	1	6	4	2	5	18
108 Lobar Pneumonia	...	2	...	...	3	5
119 Diarrhœa and Enteritis	...	3	1	1	1	6
122*b* Intestinal Obstruction	...	1	...	...	...	1
128 Diseases of the Pancreas	...	...	...	1	...	1
152 Cellulitis, Acute Abscess	1	...	...	...	...	1
157*a* Congenital Hydrocephalus	1	1	...	...	...	2
157*b* Spina Bifida and Meningocele	...	1	...	...	...	1
157*c* Congenital Malformations of the Heart	6	1	...	...	...	7
157*d* Monstrosities	2	...	...	...	...	2
157*e* Congenital Pyloric Stenosis	...	...	1	...	...	1
157*f* Cleft Palate, Harelip	...	...	1	...	...	1
157*g* Imperforate Anus	1	...	...	...	...	1
157*h* Cystic Disease of Kidney	1	...	...	...	...	1
157*i* Other Congenital Malformations	1	1	...	...	1	3
159 Premature Birth	78	4	...	...	...	82
160 Injury at Birth	13	4	...	...	1	18
161*a* Asphyxia, Atelectasis	7	...	...	...	1	8
161*e* Hæmorrhagic Conditions of the Newborn	...	1	...	...	...	1

TABLE I.—*continued.*

Causes of Death and Classification Number.	Under 1 week.	1 week and under 1 month.	1 month and under 3 months.	3 months and under 6 months.	6 months and under 1 year.	Total under 1 year.
161*g* Other Diseases peculiar to First Year of Life	1	...	...	1	...	2
182 Accidental Mechanical Suffocation	...	1	3	1	...	5
183 Accidental Drowning	1	...	...	...	...	1
188 Injury by Animals	...	1	...	...	...	1
195*d* Other Accidents	...	1	...	1	1	3
TOTAL	114	29	15	12	23	193

TABLE J.

Comparative Figures of Principal Causes of Death under One Year during 1944-1948.

Causes of Death.	1944.	1945.	1946.	1947.	1948.
Whooping Cough	8	1	...	4	4
Convulsions	...	1	...	1	...
Bronchitis	3	1	1	1	1
Broncho-Pneumonia	24	10	15	20	18
Pneumonia	3	4	2	2	5
Diarrhœa and Enteritis	5	4	2	2	6
Congenital Debility	7	5	3	3	...
Syphilis	...	1	...	1	1
Malformations	24	20	21	19	19
Prematurity and Injury at Birth	87	81	110	107	100
Other Diseases of Early Infancy	14	15	26	18	11

School Medical and Dental Service.

Staff.—There have been several changes in medical and nursing staff during the year. Dr. A. E. Wilmot, who had carried out full-time duties on the north-west coast, was granted twelve months' leave to visit England and carry out post-graduate studies on Child Health under a British Council Fellowship. Dr. Wilmot left Tasmania in August. Dr. K. Welch, who had previously occupied the position of Government Medical Officer with headquarters at Launceston, gave full-time service in the School Medical Service for the latter months of the year. Dr. T. W. George gave part-time service for a portion of the year in the southern part of the State, whilst Dr. T. J. Ick was engaged on full-time duty throughout the year in the north-eastern part of the State. Towards the end of the year Dr. J. Kennard arrived from England to take up an appointment as a School Medical Officer in Hobart. In addition, nine Government Medical Officers examined children in the districts they served. There were a number of changes among the nursing sisters, resulting in a re-arrangement of duties in the districts in the north-western and southern areas.

Children Medically Examined.—The number of children medically examined totalled 15,903, of whom 47 per cent were found to be without defects. In the 53 per cent in whom defects were noted, the most common were dental defects. Such defects were present in 33 per cent of the total number examined. Next in order of frequency were unhealthy tonsils, underweight, goitre, ocular and postural defects, skin diseases (particularly scabies), aural defects, and anaemia.

Pre-schools.—Examination and supervision of children attending pre-schools has been carried out throughout the year, and helps to bridge the gap previously existing between the supervision given at child welfare centres and that obtained on entry to ordinary schools.

Lectures.—Lectures on nutrition by the nutrition officer and on posture by Dr. Edith Clement were much appreciated by the nursing staff.

Immunisation.—In the Hobart and Glenorchy Districts, the nursing sisters assist the medical men to immunise school children against diphtheria.

Contacts made with Children by Sisters.—Details are given in the following extract from the Supervisory Sister's report:—

"Contacts with Children. Contacts made with children numbered 48,441, under the following headings:—

(*a*) New, 6578. These include children admitted to schools since sister's previous visit.

(*b*) Revision, 17,779. These are children who are checked up. Sisters try to revise the whole of a school every year.

(*c*) Others, 11,648. These include—

Children sent by parents.
Children sent by teachers.
Children presenting themselves for attention.
Observation cases.

(*d*) Head cases, 18,607. This figure includes 15,894 casual inspections and 2713 observation cases. The latter are scholars seen weekly by the sisters, or whenever they visit the various centres. It is only by persistent efforts that control of obstinate cases is kept. Casual cases are children examined in "surprise" hygiene check-ups, or when a complaint is received from a parent or a teacher *re* "dirty" heads. It is customary to examine the head of every child in the class concerned, on receipt of such a report.

(*e*) Follow-up contacts, 9838. Obtaining treatment for children in city and town areas is usually a simple matter. It is the country parents who have big obstacles to surmount. Many existing difficulties will be overcome with the advent of visiting specialists to various centres, the opening up of Government hospitals, and the increasing number of area schools.

Notes to parents, 8870. This has always proved a very effective way of saving time and overcoming certain difficulties. It is felt by all staff members that time taken to contact parents per paper is never wasted.

Visits to parents, 1124. Personal contact with parents assists in solving many problems. This vital line of approach could, if means of transport were made available, become our chief method of obtaining truly worthwhile results. This applies particularly to sisters working in country districts. Juggling with transport anxieties, especially during winter months, is a harassing business, to say the least of it. It not only means loss of time and waste of energy, but it has also been the cause of break-downs among some of the staff.

Visits from parents, 351. These parents attended the various centres to discuss their problems with the sisters.

Other visits, 318. These are made by staff members to hospitals, local authorities, &c., in the course of their duties.

Dental orders, 3737. Children suffering from toothache or dental caries are given orders to attend school dental clinics. There is no problem here for the city child, but most outback mothers have very little likelihood of overcoming the financial problem of paying transport for their family for several visits to the nearest dentist.

Other orders, 1001. These orders are given to cases requiring immediate or experienced attention and, when accidents occur, for treatment at the nearest public hospital.

Treatments, 2498. Treatments, including minor dressings, have been given to 2498 children. When necessary, cases have been sent or taken to their doctor or to hospital for further attention.".

Dental Service.—The year was marked by the sad death of the Senior Dental Inspector (Mr. J. T. Brook). Subsequently, Mr. A. W. Scott (Dental Inspector at Launceston) was appointed

to replace Mr. Brook, and the headquarters of the service were transferred to Launceston. The staff has been further depleted by the resignation of a dental inspector from the Hobart Clinic after a short period of service, and the resignation of a dental inspector who arrived from England just before the end of the year and who took up duty in the north-west but later entered private practice. Attempts to attract staff were made at intervals during the year, but were without avail. The only dental inspectors in the service at present are two in number, one located at the static clinic in Hobart and the other at the static clinic in Launceston.

For a portion of the year the northern mobile clinic was working in the north-western area of the state, but apart from this the mobile units were not in operation, as there was no staff available. During the early part of the year the dental inspector from the Launceston Clinic visited the west coast to give attention to children attending schools there. The Department also paid a portion of the cost of a visit to King Island, sponsored by the Parents' Association. During the year, 12,715 visits were paid to the dentists, 6774 representing new patients and 5941 repeat visits. The services given were—

Treatments	10,391
Fillings	2,436
Extractions	11,280
Cleanings	1,092
TOTAL	25,199

C. L. PARK, M.D., D.P.H., F.R.San.I.,
Director of Public Health.

APPENDIX I.

REPORT OF CHIEF HEALTH INSPECTOR FOR THE YEAR ENDED 31ST DECEMBER, 1948.

Staff.

In consequence of increased activities in health work, Mr. A Gillam was appointed as an Inspector in June, and Mr. G. H. Hallam later appointed to take over the duties of Inspector T. Orr who for a number of years had been in charge of the Launceston branch, and who has now reached the retiring age. Mr. Orr has rendered valuable service during his association with the Department. The new appointees have had considerable experience in municipal health duties.

It is with regret that the Department lost the services of two part-time inspectors (Messrs. R. R. Rex of Sorell and A. Blackburn of Cygnet) who, until their deaths, had been attached to the staff for a number of years. The vacancies were filled by the appointment of Messrs. A. Fenton and J. S. Fogarty.

Sanitary Surveys and Special Inspections.

Sanitary surveys, special inspections, and enquiries were carried out in all municipalities of the State. In the course of these visits, attention was directed to domestic water supplies, sewerage, nightsoil, garbage, drainage disposal, protection of food from contamination in stores, butchers' and bakers' shops, restaurants, dairying and licensed premises, and other premises where food is manufactured, prepared, and processed.

The safety of the public, sanitation, and maintenance at places of public entertainment also received attention.

Details of the above inspections (which include those carried out by part-time health inspectors engaged in municipal districts, where health services are directly controlled by this Department) are set out hereunder:—

Nature of Inspection.	Number of Inspections.	Number of Matters Requiring Attention
Bacteriolytic tanks (including sites and plans)	2160	421
Bakehouses	108	52
Butchers' shops	132	47
Buildings and plans (private)	52	9
Buildings and plans (public)	35	16
Boarding houses and guest houses	25	6
Condemnation of dwellings	4	....
Cemetery sites	8	....
Dairying premises	229	55
Disinfections and fumigations	7	....
Domestic inspections	65	48
Drainage	228	105
Food premises (including restaurants)	314	34
Garbage tips	45	9
Hospitals (including sites and plans)	34	8
Huts (hop and fruit pickers')	47	11
Licensed premises	168	39
Offensive trades	207	79
Places of public entertainment	212	111
Reserves, beaches, showgrounds, &c.	85	46
Sale yards	20	6
Sanitary depots and services	35	7
Schools	151	39
Scallop depots	18	2
Spirit testing (alcoholic)	369	1
Sewerage schemes	2	....
Subdivisions of land	14	1
Water supplies and samples	65	14
Wharves, jetties, &c.	7	1

One hundred and thirty-seven (137) orders, including four direct on municipal councils, were served under the Public Health and Food and Drugs Acts. With one exception, these were complied with. In this instance, legal proceedings were instituted and the defendant was fined £6, with £3 13s. 6d. costs.

Public Health Act—Municipal Health Inspectors.

Owing to an acute shortage of qualified health inspectors throughout the State, difficulty is being experienced by local authorities in maintaining satisfactory health standards, except by continual visits by Departmental officers.

As a means of overcoming this condition, the establishment of instructional classes for those desiring to qualify for health diplomas is suggested, and the grouping of the smaller municipalities with full-time qualified inspectors when they are available.

Installation of Bacteriolytic Tanks.

A record number of 898 bacteriolytic tanks was installed during the year. The popularity of this method of nightsoil disposal in unsewered areas is attributed to increased permanent water supplies being available, the irregular clearance of sanitary pans in some municipal areas, and the realisation by the public that the bacteriolytic tank system affords greater convenience and improved health conditions. Every encouragement and all assistance is offered to those wishing to avail themselves of this simple and effective means of overcoming one of the disadvantages of residing in unsewered areas.

Drainage Disposal.

Through the continued shortage of drain pipes and fittings, combined with the unsuitability of the soil for absorption of household wastes in many urban areas, this matter is causing considerable concern with the

over-increasing number of houses being constructed without provision being made for adequate drainage disposal.

As a temporary measure, and pending the installation of sewerage systems, the discharge of waste drainage into concrete table drains is being approved, provided these channels are permanently flushed with clean running water, and a satisfactory ultimate point of discharge exists.

Offensive Trades.

The regulations under this section have been rigidly enforced, particularly in regard to preventing dogs having access to uncooked offal, as a means of preventing the spread of hydatid disease.

Amendments to the regulations reducing the fees for the registration of piggeries from 10s. to 2s. 6d., were effected during the year.

By closer co-operation with local authorities and the Department of Labour and Industry, the former overlapping of inspections in connection with spray painting booths has been eliminated.

Food and Drugs Act.

Five hundred and thirty-two (532) samples, including milks, were submitted to the Government Analyst for examination.

With the exception of the milks, food generally was found to comply with required standards. Warnings were issued for several minor breaches of the regulations under this Act.

Food condemned consisted of 326 tins of sliced pineapples, 60 mutton birds, 130 tins of canned peas and soup, 26 tins of blackcurrants, and a quantity of canned fish.

Milk Supplies.

Special attention was given to the question of milk supplies, and milk depots were kept under close supervision in an endeavour to improve the quality of this food.

Three hundred and eighty-three (383) samples of milk were obtained for chemical and bacteriological examination. Thirty of these were found to be below the required standard. Prosecutions were instituted against eleven vendors, and nineteen warnings issued when deficiencies were slight. Legal proceedings resulted in the defendants being convicted, and fines and costs totalling £113 12s. imposed.

Several vendors availed themselves of recent amendments to the Food and Drugs Act, whereby legal action could be taken by them against those persons producing the milk and selling it wholesale.

Berry Fruits and Pulp.

Following the provision of standards by the Food Standards Committee for improving the quality of berry fruits and pulp, the Food and Drugs Regulations were amended accordingly.

Both growers and proprietors of processing factories were advised of the standards, and informed that the various receiving depots and factories would be policed, and samples of the fruits and pulp tested during the season which, owing to adverse weather conditions, will not begin until early next year. Additional inspectors have been appointed for the purpose, and appropriate action will be taken should the food not comply with the prescribed standards.

Soft Fruit Drinks.

Higher standards, which provide for greater quantities of pure fruit juice being included in fruit syrups and cordials, were also included in amended regulations under the Food and Drugs Act.

Places of Public Entertainment Act.

The committee of officers of the Fire Brigade Board, Hobart City Council, and this Department is still engaged in consolidating regulations under the above Act.

Numerous plans of proposed new halls and additions and alterations to existing buildings have been examined and reported on by this committee, with a view to affording a greater degree of safety to the public.

Considerable improvements have been effected with the construction of cinematograph cabinets at various halls in country centres throughout the State.

In one instance, steps were taken to close, temporarily, one public hall until the regulations governing same were complied with.

Conclusion.

In conclusion, I desire to thank council clerks and local health inspectors for their co-operation and assistance.

The inspectorial staff has given loyal and conscientious service during the year.

H. H. PARKER, M.R.S.I.,

Chief Health Inspector.

APPENDIX II.

REPORT OF GOVERNMENT ANALYST FOR THE YEAR ENDED 31ST DECEMBER, 1948.

Staff.

Mr. G. V. Roberts resigned from the staff in November, and Miss Sheila Cameron resigned later to take up a position in Melbourne. Mr. J. W. Wishart, B. Sc., was appointed as an analytical chemist in November. Miss A. E. Knight took up the duties of clerk-typist early in the year. Two positions as analytical chemist remain unfilled. The duties of one of these have been creditably carried out by Mr. O. Sternberg for over a year in a temporary capacity, but the work of the branch is seriously hampered by the lack of staff.

Chemical Analyses and Tests.

The following tables show the various materials examined and tested, and the sources of the samples respectively. The total number examined, 1988, is an increase over the previous year (1634) and also the year before (1734):—

Table I.—Materials Examined, in Order of Numerical Importance—

Foods	822
Petroleum products (petrol, kerosene, lubricating oils)	314
Waters and sewage	211
Soils	149
Alcoholic liquors	139
Animal toxicology	66
Human milks	53
Animal nutrition	48
Human toxicology	27
Hydrometers and thermometers	22
Paints, lacquers and building materials	18
Fertilisers	17
Plant nutrition	12
Textiles and paper	12
Pesticides	11
Drugs and medicines	10
Disinfectants and preservatives	7
Soaps and cleaning materials	4
Feeding stuffs	3
Miscellaneous	43
Total	1988

Table II.—Sources of Samples—

State Departments:	
Department of Public Health	558
Department of Agriculture	241
Police Department	48
Public Works Department	8
Transport Commission	4
Agricultural Bank	4
Supply and Tender Department	1
Commonwealth Departments:	
Department of Trade and Customs	505
Department of Commerce and Agriculture	20
Postmaster General's Department	4
Department of Supply and Development	1
City Councils and Local Authorities	184

Child Welfare Centres and Mother-craft Home	48
Hospitals and Institutions	17
Tasmanian Museum	3
Private Firms and persons	342
	1988

The main increases have been in the number of foods (mainly milks) and waters examined. The numbers of these increased by 288 and 129 respectively, and the number of soils by 58. A fall was registered in the number of alcoholic liquors, mainly liqueurs, examined for the Customs Department, 119 less than the previous year.

Food and Drugs Act Analyses.

The following table summarises the results of the examination of food samples taken by inspectors under the provisions of the Food and Drugs Act:—

Foodstuff.	Number of Samples Received.	Number Below Standard.
Beverages	5	....
Butter	6	4
Bread	1	....
Custard powder	4	....
Confectionery and pastry	5	1
Coffee and coffee essence	4	....
Fish and fish products	11	....
Flour (self-raising)	4	1
Jam	1	....
Junket tablets	2	....
Liqueurs	1	1
Milk	417	65
Margarine and edible fats	5	....
Meat and meat products	6	2
Rice	1	....
Sago	1	....
Sausages	8	5
Sauces	4	1
Spreads and savouries	7	....
Soups	6	1
Spices and condiments	4	1
Spirits	1	1
Spaghetti	1	....
Vegetables (canned)	2	....
Total	507	83

The proportion of samples not complying with the standards is still high (16·3 per cent). Apart from milk, of which 15·5 per cent of the samples fell below standard, the majority of the infringements were of a minor nature. The principal cases are detailed below.

Milk.

An examination of the results of official milk analyses discloses the following position:—

Summary of milk analyses—

	No. of Samples.	Percentage of Total.
Complied with standard	352	84·4
Adulterated with water	18	4·3
Deficient in fat only	7	1·7
Below standard in total solids and/or solids not fat	40	9·6
	417	100·0

The samples adulterated with water are as revealed by chemical analysis and freezing point determinations. The 40 samples which were below standard in total solids or solids not fat, or both, were deemed to be naturally poor, but not watered samples. Of these 25 had a freezing point below -0·540°C, and 15 passed the test by virtue of the tolerance allowed in the Hortvet test, i.e., their freezing points fell between -0·53° and -0·54°C. As they were market milks, and therefore comprised the mixed milk of herds, which does not show the wider freezing point variation of the milk of individual cows, it is evident that the procedure adopted is lenient. The freezing point determination, as well as being a safeguard of a vitally important foodstuff, is a protection to the milk vendor against the charge of watering as distinct from the less heinous, but still undesirable, offence of selling sub-standard milk.

Miscellaneous Food Standard Infringements.

These included four samples of butter with more than the permitted amount of water; a sample of self-raising flour containing less than the requisite quantity of available carbon dioxide; four samples of sausages, one containing excess preservative (sulphur dioxide) and three with excess starch. A sample of tomato sauce was wrongly labelled free from preservatives and artificial colouring.

A sample of "health salts" stated in the label to be made from salt, raw vegetables and kelp, and to contain "the 16 body elements and provide vitamins", also to ensure "a supply of vitamins and minerals which is found in uncooked vegetables", consisted of a mixture of about equal parts of crude salt and vegetable matter (dried vegetables and seaweed). Some potassium salt and phosphate were present. The amount of ascorbic acid (vitamin C) present was eight milligrams per 100 grams. This preparation, in view of the relatively small amount of it which would be consumed daily, could contribute only a negligible amount of vitamin C. to the diet. Its dried condition is against the retention of any appreciable quantity of the ascorbic acid which may have been present in the vegetable material originally. Claims for the presence of vitamins A, B, and D also appeared on the label. Unfortunately we do not possess in the branch the equipment for determinations of these vitamins.

It is evident, from the increasing number of claims of vitamin potency and fortification that appear on the labels of foodstuffs nowadays, that steps will have to be taken to check their genuineness or otherwise. Any form of control would have to be backed by specific regulations regarding vitamin claims, i.e., minimum specified quantities in a normal serving.

Waters.

Samples of water examined numbered 210. Most of these were from the Departments of Public Health, Agriculture, and Public Works, from private persons, mainly farmers, and from local authorities. Hobart water supplies are receiving a periodical chemical check for hygienic purity, in conjunction with bacteriological tests made by the pathologist.

Some scores of samples of rain-water from household tanks were examined in connection with the action on galvanised roofs of rain-water polluted by sulphur fumes from a near-by works. Zinc in amounts ranging from 22 to 173 parts per million, with equivalent amounts of sulphate, and pH as low as 5·9 were found. Many roofs in the district were not painted. One interesting causative factor, in addition to the incidence of the fumes, was the prevalence during the winter months of calm, still, dewy or misty nights. At such times the moisture condensed on the roofs, the acid attacking the zinc, and the zinc sulphate formed was washed into the tanks with the next shower of rain.

Zinc is an undesirable constituent of drinking waters in amounts higher than the few parts per million usually found in water stored in galvanised iron tanks. In quantities above 50 parts per million in the occurrence related, it caused an astringent, harsh taste, curdling of milk in tea, and the formation of a white scum on boiling the water, and may have been responsible for stomach upsets in young children.

In the district where the rain water was affected, immersion heating elements in hot water jugs had a considerably shorter life than those used with Hobart water.

Eighteen samples of water from public swimming baths were tested for the Chief Health Inspector to check the degree of chlorination. In all cases free chlorine was present, the amounts varying from 0·04 to 1·6 parts per million, but usually between 0·1 and 0·3 parts per million.

In connection with industrial development in various parts of Tasmania an attempt is being made to collect complete mineral analysis of the water supplies of the principal Tasmanian towns. Inquiries are received from time to time from potential manufacturers as to the suitability of the water for various industrial purposes. A satisfactory answer usually entails a detailed analysis.

So far, complete analyses of the water supplied in Hobart, Glenorchy, Burnie and Devonport are available. Analysis of the Launceston supplies is also procurable from another source.

Toxicology and Police Investigations.

Forty-two (42) specimens of organs, food, &c., were examined for coroners and doctors in connection with thirteen cases of real or suspected poisoning. Of these cases, one was due to arsenic, one chloral hydrate, and 11 were negative.

Eight (8) specimens of ink, banknotes and grease were examined for the police in connection with criminal investigations.

Evidence was given in court by me in a number of the above cases.

Animal Poisoning.

Thirty-four specimens and baits were submitted by private persons and departmental and other veterinary officers in connection with suspected poisoning of animals. Out of 23 cases, strychnine was detected in seven and arsenic in five. The incidence of malicious poisoning of animals is far too common. Five swabs taken from racehorses, were examined for "doping" agents, with negative results.

Agricultural Chemistry.

Soils accounted for 149 samples during the year. Many were submitted by officers of the Department of Agriculture in connection with projects such as potato manurial trials, soldier settlement, and land drainage and utilisation. In many cases pH and lime requirement determinations were sufficient to provide the necessary information, but in a number of others, more complete analyses were made. A large number of samples are received from private persons. In practically all cases the senders are referred to the Department of Agriculture before analyses are made, and officers of that Department are supplied with the information necessary to enable them to advise on suitable treatment.

Specimens of apple leaves (for magnesium, phosphoric acid and molybdenum), oats (for manganese, iron and magnesium), and soils used in pot experiments (for calcium, manganese, potassium and phosphoric acid) were examined for officers of the Department of Agriculture in connection with problems of plant nutrition and disease.

Seventeen (17) samples of fertilisers were examined.

Seven samples of lime sulphur spray material were examined. One manufacturer was given information and advice to assist him in the improvement of his product.

Animal Nutrition.

Forty-eight (48) specimens, mainly livers and blood, were examined for the Veterinary Branch of the Department of Agriculture in connection with nutritional diseases of animals. Copper and/or cobalt were determined.

Miscellaneous Analyses.

These included soaps and cleaning materials, 4; paints and building materials (cement, mortar, &c.), 18; disinfectants and preservatives, 7; drugs and medicines, 10.

Commonwealth Departments.

Work done for the Department of Trade and Customs and for the Department of Commerce and Agriculture takes up a considerable amount of the time of the laboratory. Altogether, 525 samples were examined for the two departments. Of these 505, mainly petroleum products (oils, petrol, and kerosene) and alcoholic liquors, were for the former Department and 20 (mainly butters) for the latter.

Local Authorities.

These accounted for 184 samples, mainly milks and waters. Only one local authority, the Hobart City Council, sends milk or food samples regularly, and not more than one or two others submit food samples at any time, although Departmental inspectors take samples in some districts.

Food Standards Committee.

Early in the year, in connection with the work of the committee, a complete revision was made by myself and Mr. A. J. Miller of the regulations under the Food and Drugs Act dealing with fruit squash and fruit juice products, cordials and fruit juice syrups, summer drinks, aerated waters, fruit wines, and cider and perry. The standards recommended were subsequently adopted, with slight modifications, by the committee, and later became law. Principal features were the raising of the minimum juice content of blackcurrant syrup to 40 per cent by volume, with the imposition of a maximum on the sugar content of fifty-five per cent by weight, provision for fruit-flavoured (carbonated) summer drinks with minimum fruit juice content of five or ten per cent, according to variety of fruit, and the debarring of the use, on lower grade and imitation products, of fruit names unless qualified by the words "flavoured" or "imitation" and of fruit devices and designs on the labels.

Another important addition to the regulations was a standard for berry fruits, based on soluble solids contents and designed to eliminate the watering and adulteration of fruit. The minimum soluble solids fixed were as follows:—

Strawberry	8
Raspberry	7
Loganberry	7
Blackberry	8
Blackcurrant	11
Redcurrant	8

These were arrived at following a survey which was made during the 1947/48 season, and also took into account experience during the war years.

Jam Fruits Survey.

The investigation of the range of composition of the principal constituents of Tasmanian berry fruits, concentrating at present on raspberries and blackcurrants, has been continued. In addition to the determinations of the usual constituents, such as sugar, acid, pectin, fibre, and the ash constituents, ascorbic acid determinations have been made. It is hoped that sufficient figures will be available soon for publishing.

Apparatus and Equipment.

This has been kept fairly well up to date by the purchase of a grinding mill, a new refractometer, another air-damped aperiodic balance and a larger refrigerator.

In view of the claims made nowadays by the makers of certain foodstuffs for their vitamin potency, it has become very necessary that provision be made for the purchase of modern equipment for the determination of vitamins. This will be expensive and will necessitate careful enquiry, but it is essential.

Information and Advice, &c.

As in the past, a considerable amount of time has been devoted to giving information and advice, and to answering enquiries from Government Departments and members of the public.

Conclusion.

It is desired to express appreciation of the services and support given by the members of the staff during the year.

H. E. HILL, F.A.C.I., A.R.I.C.,
Government Analyst.

SECTION II.—REPORT OF DIRECTOR OF HOSPITAL AND MEDICAL SERVICES FOR THE YEAR ENDED 31ST DECEMBER, 1948.

HOSPITALS.

Public Hospitals.

The general activities of public hospitals showed a further increase this year, although the total number of bed-days was slightly lower than the previous year.

The main decrease was at the Royal Hobart Hospital; most of the other hospitals maintaining the same level or showing a very slight increase.

The out-patients, however, showed a considerable increase, both in the number of out-patient registrations and the number of visits. This is largely due to out-patients being treated free, but is also augmented by greater facilities offered for specialist treatment at the major base hospitals, and the visiting specialists to country centres. (See Table K.)

TABLE K.

Public Hospital Statistics.

HOSPITAL.	IN-PATIENTS		BED-DAYS		OUT-PATIENTS		NO OF VISITS.	
	1947	1948	1947	1948	1947	1948	1947	1948
Royal Hobart	10,523	10,178	126,294	123,870	19,695	35,095	98,416	121,759
Launceston General	5,566	5,698	106,266	95,667	27,826	20,889	73,106	76,066
Devon, Latrobe	3,135	3,467	29,011	30,751	2,985	2,901	3,241	3,363
Spencer, Wynyard	2,147	2,216	19,302	20,599	....	....	....	....
Lyell, Queenstown	872	793	11,376	10,482	1,755	2,110	4,978	6,039
Ulverstone	663	723	5,446	4,830	....	....	....	....
Zeehan	582	595	7,082	6,311	896	856	1,609	1,537
Peacock, Hobart	507	556	6,440	6,435	....	....	....	....
Scottsdale	649	553	7,554	6,389	558	749	5,214	3,855
Campbell Town	461	470	5,172	5,880	....	....	....	....
Beaconsfield	400	444	4,649	4,380	....	....	....	....
King Island	398	399	2,664	2,657	871	763	1,233	1,303
New Norfolk	390	320	3,264	2,343	2,061	1,336	4,223	5,337
St. Marys	218	237	2,943	3,185	110	97	251	223
TOTALS	26,511	26,649	337,463	323,779	56,757	64,796	192,271	219,482

Bed-days decreased by 13,684 = 4 per cent reduction.
Out-patient registrations increased by 8039 = 14 per cent increase.
Out-patient visits increased by 27,211 = 14 per cent increase.
Daily average cost per occupied bed for 1947 = 23s.
Daily average cost per occupied bed for 1948 = 28s. 9d. an increase of 25 per cent.

Commonwealth Aid—

In-patients at 8s. per day from 1.7.48.
Out-patients at 3s. 3d. per initial registration from 15.1.49.

Consultant Specialists.—The Orthopaedic Surgeon, although performing most of his duties in Hobart and environs, regularly visits the public hospitals at Launceston, Wynyard, Latrobe, and Queenstown. The following indicates the extent of work carried out by him at Hobart and other hospitals:—

Hobart—	
Operations	278
Manipulations, reductions, plasters, &c.	234
Out-patients (visits)	6771
Other Hospitals—	
Operations	120
Out-patients (visits)	1480

The Orthopaedic Surgeon also regularly visits Wingfield House (Crippled Children) and the Lady Clark Rehabilitation Centre, where orthopaedic cases from all parts of the island are brought for rehabilitation training. On the staff at this centre are included an Occupational Therapist and two Physiotherapists, and there is also a well-equipped gymnasium and physiotherapy department

The establishment of the rehabilitation centre has already proved its value by the number of patients who have been returned to their former or some other occupation. Many of these, without this centre would have remained pensioners for life.

Two visits have been made by the Plastic Surgeon from Victoria, 35 operations having been performed, in addition to 106 other patients being examined. The Consultant Neurologist from Victoria has also paid two visits, 35 patients having been presented to him. Both of these specialists also gave lectures to the medical and nursing staff on the special work which they undertake.

The chief tuberculosis officer of the Repatriation Department also paid two visits and carried out special surgical procedure on tuberculosis patients in public hospitals.

Staff (Medical).—The visiting medical staffs to the major base hospitals, Royal Hobart and Launceston General, have been further expanded and augmented by specialists who recently obtained their higher qualifications. This has its reflection in the higher standard of the resident medical staff, many of whom are in training for their higher degree, three having completed same. The liaison between the visiting and resident staff is all that can be desired, one of the

outstanding features of which has been the inauguration of regular clinico-pathological lunch-time meetings.

Out-patients service has been improved at the major base hospitals by the appointment of an Out-patients Registrar, and also clinical assistance to the visiting medical staff.

The administration of the hospitals has improved considerably by the appointment of general superintendents, and plans are well advanced for a course of training for all executive officers.

Post-graduate training for medical staff is being encouraged, and arrangements have been completed for special training of a thoracic surgeon. The fact that certain hospitals are now recognised as post-graduate training schools for medicine, surgery, gynaecology, and obstetrics has resulted in a very high standard of applicant for resident positions.

Staff (Nursing).—The world-wide shortage of nurses is reflected in this State, but the supply of trained nurses has been maintained at the required standard largely due to the employment for short service periods of trained nurses from other States. While this is satisfactory from the standpoint of care and attention to patients, certain difficulties arise from the administrative standpoint, and also that of training of nurses. This position, however, is becoming more stabilised, but great difficulty is experienced in obtaining the number of trainees required.

To encourage suitable girls to enter the profession, a Publicity Officer has been appointed and a coloured sound film is in process of being made depicting "The Life of a Student Nurse". Press publicity has been increased, schools visited, hospital inspections and demonstrations arranged, and talks given to Mothers' and Parents' Associations. The results to date are very encouraging, but still greater efforts must be made if the requisite numbers are to be obtained. To assist, a definite syllabus of essentially a practical nature has been compiled by the Nurses' Registration Board to train girls for a period of one year at recognised training schools in practical nursing, at the completion of which they will be registered as members of an Auxiliary Nursing Service. This course has been so arranged that if the person is successful, and so desires, she can carry on and complete the training for a registered nurse. This course of training is in charge of a recently returned Florence Nightingale Scholarship holder, who obtained her diploma in London as a tutor sister. The return of a second Florence Nightingale scholar trained in nursing administration has further stimulated post-graduate training in this State.

The appointment of an Orthopaedic Sister with very wide experience in Australia and overseas has done much to raise the standard of orthopaedic nursing, as, in addition to assisting the State Consultant Orthopaedist, she gives courses of instruction at the major hospitals.

The training of nurses has been considerably improved by the addition of charts and models, which, until now, have been unprocurable for many years. All training schools have now sound film projectors with a regular supply of instructional nursing films.

During the year the nursing staff has benefited considerably by additional amenities in connection with living and financial conditions, such as—

(1) The elimination of war-time clause in the Wages' Board determination of first four hours of overtime being paid at ordinary rates; payment being made in full for all overtime worked.
(2) Forty-hour week put into operation where possible.
(3) The granting of long-service leave to those who have completed ten years of continuous service.
(4) The automatic application of quarterly basic wage fluctuation to all nurses' salaries.

In Hobart a motor-car has been provided for the use of a sister on home nursing service, who visits patients discharged from hospital but still requiring treatment in their own homes. This has proved a most valuable asset, as it tends to diminish the length of stay of certain patients in hospital.

Equipment.—The standard of equipment still continues to rise, and much new and highly technical equipment has been supplied during the year—X-ray apparatus, diathermy machines, gas anaesthetic machines, special beds, and air-conditioned and heat regulated cots or bassinettes for premature babes.

In this respect tribute must be paid to the Women's Auxiliaries throughout the State, who have donated very valuable equipment, in addition to practical work and services given and rendered in support of the hospital. The service from auxiliaries has doubled since the inception of free hospital treatment, their membership has increased and their interest and enthusiasm are extended to all departments of the hospital.

Costs.—The average daily cost per occupied bed for 1947 was 23s. per day, and for 1948 it was 28s. 9d. per day, an increase of 25 per cent. This was due to increased salaries and wages, increased costs of commodities, drugs, and equipment. The Commonwealth contribution has been increased from six shillings to eight shillings per day, but still does not bear the same relation to the total cost per day as it did in the years on which the rate was computed.

Buildings.—The Burnie Public Hospital and Nurses' Home are now nearing completion, and it is anticipated these will be opened in the latter part of 1949. Additions to the Nurses' Home at the Queen Victoria Hospital are well advanced, and a commencement has been made on the Nurses' Home for the Maternity Section of the Spencer Hospital, Wynyard. Alterations, renovations, and repairs have been carried out at a number of hospitals, but work in many instances has not progressed as readily as anticipated, owing to shortage of materials and labour.

Accommodation for medical staff and nurses is urgently required at the major base hospitals, whilst there is a most urgent need for extensive out-patient buildings at both Hobart and Launceston.

Plans have been prepared for a new out-patients' department at the Royal Hobart and also for medical officers' quarters at Launceston. Tenders will shortly be called for a new nurses' home at Devon Public Hospital and also for a complete new hospital. No tenders were received for the erection of new hospitals at Smithton and Oatlands.

Private Hospitals.

TABLE L.

Return showing Number of Private Hospital Licences Issued, and Private Hospitals Exempted from Applying for a Licence, during the Years 1947 *and* 1948.

	Licences Issued								Hospitals Exempted							
	Medical, Surgical & Lying-in		Medical and Surgical only		Lying-in only		Total		Medical, Surgical & Lying-in		Medical and Surgical only		Lying-in only		Total	
	1947.	1948.	1947.	1948.	1947.	1948.	1947.	1948.	1947.	1948.	1947.	1948.	1947.	1948.	1947.	1948.
Hobart.	...	...	1	1	4	2	5	3	1	1	1	1	...	...	2	2
Launceston ..	...	...	...	...	2	2	2	2	...	...	2	2	...	...	2	2
Country	7	8	...	...	10	7	17	15	...	...	1	1	...	...	1	1
Total...	7	8	1	1	16	11	24	20	1	1	4	4	...	...	5	5

TABLE M.

Amounts Paid to Approved Private Hospitals from the Commonwealth Private Hospital Benefits Trust Account, for Bed-days of Qualified In-patients. (The rate was 6s. *daily until* 31st *October,* 1948, *and was increased to* 8s. *daily from* 1st *November,* 1948.)

Approval No. of Hospital.	1947.			1948.			
	Bed-days.	Average Daily No. of In-patients.	Amount Paid.	Bed-days.	Average Daily No. of In-patients.	Amount Paid.	
			£			£	
T 1	36,525	100	10,957	41,437	113·21	12,760	
2	1,131	3·09	339	808	2·21	256	
4	429	1·17	129	366	1	114	
5	6,360	17·42	1,908	5,857	16	1,821	
6	19,346	53	5,804	19,680	53·77	6,172	
7	876	2·4	263	....	....	....	To 31.12.47
8	2,815	7·71	845	1,922	5·25	608	
9	5,049	13·83	1,515	4,788	13·08	1,504	
10	266	·72	80	39	·1	13	
11	1,773	4·85	532	1,423	3·88	450	
12	238	·65	71	256	·69	80	
13	298	·81	89	168	·45	57	
14	56	·12	17	33	·09	11	
15	37	·1	11	254	·69	78	
16	2,855	7·82	856	998	8·24	299	To 30.4.48
18	97	·26	29	62	·16	20	
19	248	·67	74	233	·63	71	
21	3,263	8·93	979	3,041	8·3	956	
22	414	1·13	124	445	1·21	144	
23	9,636	26·31	2,891	10,420	28·46	3,269	
24	1,500	4·1	450	774	2·78	232	To 30.9.48
26	2,492	6·82	748	2,148	5·86	679	
27	464	2·56	139	....	....	....	To 30.6.47
28	1,280	3·5	384	1,015	3·32	305	
29	11,735	32·15	3,521	11,027	30·12	3,475	
	109,183	300·12	£32,755	107,194	299·50	£33,374	

BUSH NURSING.

Owing to the great demand for double and triple certificated nurses, and the number of positions available for them in large centres with all amenities, short working hours, and overtime and penalty rates, great difficulty has been experienced in maintaining a full staff for all the bush nursing centres, and also in expanding to other districts where the service is required and has been requested. The bush nurse often leads an isolated existence in a remote area, is liable to be called on at any hour and any day, is situated far from amenities and often congenial companionship. That such services continue is a high tribute to the character of these nurses, and their love of the work and their service to humanity.

The service still continues to render nursing aid in districts where it is greatly needed and greatly appreciated. During the year, a new hospital centre was built and equipped at St. Helens, and has already proved a great boon to that district.

Staff difficulties were overcome to a certain extent by the formation of an Emergency Nursing Service, whereby nurses were engaged for service of short periods at one centre, and then moved to another. These were mostly mainland nurses.

Cape Barren Island, Southport, and Triabunna hospital centres were closed for portion of the year, owing to inability to obtain staff. In-patients could not be admitted for portion of the year at Tasman centre, and for all the year at Oatlands for the same reason, but the service of

visits to nurses and visits to patients was still maintained. All hospital centres admitting in-patients, except the smaller ones at Alonnah and Marrawah, are now staffed with two trained nurses, in addition to domestic help. At one large non-hospital centre (mining district) there are also two trained nurses.

In addition to their attention to the sick, sisters in bush nursing centres also carry out child welfare work, school medical inspection work, and instruction in mothercraft, first-aid and home nursing at some schools.

A building has been purchased at Oatlands, and renovations are now being carried out so that this centre may be open to receive in-patients. Plans have also been drawn for the erection of a bush nursing centre at Gladstone, which will function early next year. Alterations and additions have been made to the Whitemark centre, Flinders Island, in addition to minor repairs and renovations at other centres.

Great support has been given to centres by both divisions of the Bush Nursing Association, Local Auxiliaries, and local branches of the Country Women's Association, by gifts such as wireless sets, surgery and ward equipment, electric domestic equipment, sewing machines, curtains and nursery furniture.

Residences have been provided by local bush nursing committees in seven centres; the remaining seventeen are owned by the Public Health Department.

The cost of this State-wide service for the year was £13,834 12s. 9d., of which the Northern Division of the Bush Nursing Association contributed £270, the Southern Division £405, and Local Committees £1338, making a total of £2013; the amount contributed by the Department being £11,821 12s. 9d.

Practically all centres are now connected with the hydro-electric power system, which has greatly improved both the living and working conditions of the nurses, and added considerably to the comfort of the patients.

TABLE N.

Summary of Work Performed in Bush Nursing Centres during the Year 1948, *together with Comparative Figures for the Years* 1944 *to* 1947.

Centre.	Hospital Beds.	Visits to Centre.	Visits to Patients.	Hospital In-patient Days.	Maternity Cases.	Pre-natal Visits.	Child Welfare Visits.	School Visits.	Mileage.	Fees Earned. £	s.	d.
Alonnah	2	589	198	311	8	43	110	13	4,268	48	8	4
Avoca	....	565	300	4	4	37	125	9	1,025	78	7	9
*Cape Barren Is.	4	568	67	49	3	44	84	2	53	....		....
Cygnet	5	473	24	645	62	61	673	....	72	8	7	2
Flinders Island	5	690	....	692	24	14	147	19	1,316	....		....
Grassy, King Is.	....	957	166	....	....	6	949	14	3,067	34	4	2
Lilydale	....	200	702	....	1	72	641	10	6,782	202	15	3
Marrawah, Redpa	2	379	100	76	7	62	230	....	926	33	13	3
Mole Creek	....	305	211	8	....	1	181	4	943	92	19	0
†Oatlands	5	352	63	....	....	16	470	35	134	....		....
Ouse	5	247	35	744	54	23	74	1	119	10	0	0
Ringarooma	....	685	433	....	1	170	458	27	2,492	144	13	10
Rosebery	1	4,910	1,088	5	5	310	624	1	2,750	....		....
Rossarden	....	2,481	608	....	....	62	522	9	1,010	....		....
‡St. Helens	4	9	2	3	....	....	....	....	....	0	10	6
Sorell	4	585	13	437	26	110	125	....	....	4	7	0
§Southport	2	39	2	....	....	2	24	1	2	0	16	10
Storeys Creek	....	986	683	....	....	58	208	11	1,463	....		....
Strahan	....	877	782	....	1	122	268	....	1,976	0	18	0
Swansea	3	260	6	414	34	71	388	6	....	2	6	6
¶Tasman	5	402	110	306	21	25	132	....	2,683	43	11	0
‖Triabunna	3	95	24	153	8	35	149	4	185	7	0	1
Tullah	....	601	332	....	....	58	87	4	536	....		....
Waratah	1	998	721	....	2	65	348	....	3,697	0	10	6
TOTAL	51	18,253	6,670	3,847	261	1,467	7,017	170	35,499	713	9	2
Year.										£	s.	d.
1944: 20 centres	39	11,877	5,967	2,840	192	1,346	7,783	191	25,781	1,628	17	8
1945: 21 centres	39	10,504	5,756	3,972	170	1,209	7,163	213	29,649	2,422	0	9
1946: 23 centres	49	13,287	5,883	4,887	272	1,542	6,072	199	30,396	718	12	0
1947: 23 centres	45	16,042	6,293	5,431	306	1,641	6,916	154	35,506	555	3	9

* Closed temporarily Aug.-Sept. Closed December.

† Closed to in-patients.

‡ Opened 6.11.48. Assisted doctor generally whilst awaiting hospital equipment.

§ Open April, May and June only.

¶ Closed to in-patients part of year, whilst no resident doctor.

‖ Closed temporarily from 22.5.48.

Government Medical Service.

The Government Medical Service continues to render very valuable assistance, mainly in sparsely populated districts. The actual number of patients attended to is slightly lower this year, owing to the inability to maintain permanent staff at some centres. This is due to no permanent residences being available for a doctor in some districts. The policy now is for the Department to erect or purchase a suitable residence in the district, and to supply basic heavy furniture. Residences owned by the Department are now available and are occupied at King Island, Flinders Island, Penguin, St. Helens, Swansea, Tasman, Cygnet, Dover, New Norfolk, Hamilton, and rented quarters at Scottsdale, Derby and Sorell, but residences are still required at Scottsdale (2) and New Norfolk (1). Fingal and Richmond are also enquiring for Government Medical Services, which, if granted, cannot be commenced until a residence is provided.

The equipment of all doctors has been improved, and practically all have at their disposal X-ray and minor laboratory equipment.

Post-graduate facilities have been granted to two officers, and this will be continued yearly, provided staff is available. Close liaison is maintained by the Government Medical Officers with the Bush Nursing Service and the Public hospitals.

TABLE O.

SUMMARY of Work Performed by Government Medical Officers during the Year 1948, together with Comparative Figures for the Year 1947.

District.	Population.	Date of Commencement of Service in District.	Number of Attendances upon Patients, showing Location of Attendance (excluding Workers' Compensation and Midwifery Cases which are shown separately).					Number of Attendances upon Workers' Compensation Cases.		Number of Attendances upon Midwifery Cases		Total of all Attendances.		Mileage Covered.	
			Residence.	Surgery.	Hospital.	TOTAL.		TOTAL.		TOTAL.					
						1948.	1947.	1948.	1947.	1948.	1947.	1948.	1947.	1948.	1947.
Bruny	676	1.3.38	250	1	17	268	...	4	...	6	...	278	...	1,602	...
Esperance ...	1,121	11.3.38	2,297	935	13	3,245	2,801	2	3	...	1	3,247	2,805	10,547	8,157
Evandale... ...	1,952	1.7.47	378	865	...	1,243	1,567	...	6	...	...	1,243	1,573	3,010	4,184
Flinders	750	1.3.38	1,140	807	144	2,091	1,828	...	14	15	10	2,106	1,852	9,949	9,216
Glamorgan-Spring Bay	1,694	18.3.38	905	905	129	1,689	1,655	7	6	22	27	1,668	1,688	10,267	9,988
George Town...	1,070	5.1.40	1,294	1,463	93	2,850	2,709	...	...	...	...	2,850	2,709	14,297	14,059
Hamilton... ...	3,125	1.3.38	1,729	2,646	172	4,547	4,446	20	16	29	27	4,596	4,489	21,138	18,825
Kingborough ...	4,729	1.3.38	2,469	3,729	5	6,203	6,558	205	93	2	1	6,410	6,652	13,378	14,401
King Island ...	1,500	1.9.38	715	4,553	424	5,692	5,592	61	58	45	39	5,798	5,689	5,780	5,381
New Norfolk...	8,000	9.8.46	1,785	5,225	219	7,229	9,618	14	45	3	22	7,246	9,685	13,760	22,535
Penguin	2,880	13.7.38	1,271	3,749	46	5,066	3,436	20	6	5	...	5,091	3,442	12,342	7,798
Port Cygnet...	2,890	1.7.40	2,373	3,183	12	5,568	4,324	50	33	19	37	5,637	4,394	9,381	9,568
Portland	1,400	14.6.39	2,147	3,075	5	5,227	5,048	51	35	...	1	5,278	5,084	6,161	6,625
Ringarooma ...	4,849	1.1.40	877	2,280	...	3,157	3,652	71	50	...	...	3,228	3,702	9,469	9,988
Scottsdale... ...	2,754	5.8.39	724	3,984	1,978	6,686	6,846	70	51	...	1	6,756	6,898	11,580	11,953
Sorell...	2,373	1.12.38	1,225	2,209	122	3,556	4,365	28	40	4	12	3,588	4,417	10,000	7,426
Tasman	1,339	21.4.38	466	511	52	1,029	1,699	1	8	6	8	1,036	1,715	7,014	10,076
Totals	43,102	...	21,745	40,120	3,431	65,296	66,144	604	464	156	186	66,056	66,794	169,675	170,180

B. M. CARRUTHERS, M.B., F.R.San.I.,
Director of Hospital and Medical Services.

APPENDIX III.

REPORT OF NURSES' REGISTRATION BOARD FOR THE YEAR ENDED 31ST DECEMBER, 1948.

During the year five ordinary meetings were held, the personnel of the Board being as follows:—

Dr. B. M. Carruthers, Chairman.
Dr. T. C. Butler.
Dr. C. Craig, Superintendent Launceston General Hospital.
Dr. P. Braithwaite, Superintendent Royal Hobart Hospital till May, 1948, then Dr. J. C. Laver (from July meeting).
Miss J. O. Brown.
Miss C. I. Skirving.
Miss B. L. Campbell, till August, when she was granted leave to do a post-graduate course in England. Miss L. M. Zwar was appointed during Miss Campbell's absence (from November meeting).

Legislation.

Act.—An amendment to the Nurses' Registration Act was passed, changing the term " Mental " to " Psychiatric."

Regulations.—Amendments were passed, as follows:—

1. Increasing the post-graduate psychiatric course to two years, and revising the course and curriculum (Government Notice No. 24).
2. Providing a tuberculosis badge (Government Notice No. 224).
3. Amending the regulations for midwives after a review of same by a sub-committee of obstetricians and matrons of training schools (Government Notice No. 384).

Training Schools.

During this period Millbrook Rise was given recognition as a psychiatric training school, provided that at least nine months of the training period is spent at Lachlan Park.

Number of registered training schools—
General, 9.
Midwifery, 6.
Psychiatric, 2.
Child Welfare, 2.
Tuberculosis, 1.

Trainees.

1. Applications for training—
   General, 130.
   Midwifery, 96.
   Child Welfare, 38.
2. Commenced training—
   General, 127.
   Midwifery, 100.
   Psychiatric, 25.
   Child Welfare, 41.
3. Completed training—
   General, 61.
   Midwifery, 66.
   Psychiatric, 4.
   Child Welfare, 36.
4. Resigned before completion of training -
   General, 79
   Midwifery, 14.
   Psychiatric, 11.
   Child Welfare, nil.
5. Total number in training, 31.12.48 (411)—
   General, 289.
   Midwifery, 69.
   Psychiatric, 37.
   Child Welfare, 16.

Examinations.

1. Educational examination for intending trainees—
   Number held, 4.
   Number of candidates, 16.
   Results—7 passed; 9 failed.
2. For registration of nurses—
   Number held, 3.
   Number of candidates—
   General, 68.
   Midwifery, 74.
   Psychiatric, 4.
   Child Welfare, 39.

Results.	Passed.	Failed.
General	67	1
Midwifery	74	—
Psychiatric	4	—
Child Welfare	39	—

Registration of Nurses.

Applications approved (469), as follows:—
General, 260.
Midwifery, 149.
Psychiatric, 4.
Child Welfare, 47.
Tuberculosis, 9.

Registrations renewed (960), as follows:—
General, 611.
Midwifery, 290.
Psychiatric, 39.
Child Welfare, 13.
Tuberculosis, 7.

Total number of registrations in State at 31.12.48 (1728), as follows:—
General, 1122.
Midwifery, 509.
Psychiatric, 43.
Child Welfare, 45.
Tuberculosis, 9.

Number of persons registered at 31.12.48 (1228), as follows:—
General certificate only, 649.
Midwifery certificate only, 64.
Psychiatric certificate only, 34.
Tuberculosis certificate only, 8.
General and Midwifery, 418.
General, Midwifery, and Child Welfare, 27.
General and Child Welfare, 18.
General and Psychiatric, 9.
General and Tuberculosis, 1.

Reciprocity.

During the year reciprocal agreements for registration were entered into as follows:—

With the United Kingdom in respect of psychiatric nurses.

With Western Australia in respect of tuberculosis nurses.

With South Australia in respect of child welfare nurses.

Attempts were made to obtain reciprocity with all Australian States and New Zealand in respect of child welfare nurses, but South Australia is the only State to agree to unconditional reciprocal registration.

Western Australia has agreed in principle but there is no child welfare training being done there at present although there is provision in their Act for same.

General.

Up till this year, the Nurses' Registration Board has convened an annual Conference of Matrons of Training Schools. During 1948 the Tasmanian Hospital Matrons' Association was formed. In future, this body will conduct its own meetings.

Plans were drawn up for the inauguration of the Tasmanian Auxiliary Nursing Service which will give a 12 months' practical training to girls of 16 years and over. At the end of this training, if successful at an oral examination, these girls will be eligible to become members of the Tasmanian Auxiliary Nursing Service, and be registered as such. If after completion of this period they wish to continue with their training, arrangements are to be made for them to continue as second-year trainees. Legislation for this was not passed during the year under review, but the curriculum has been planned in readiness as it is expected that the Bill will be presented to Parliament in the near future.

As mentioned above, all the midwifery regulations and curriculum were reviewed and a number of amendments made. The curriculum for all other nursing subjects is under review and at an early date a number of amendments will be requested.

Further representations have been made on a number of occasions to the Minister for Immigration to bring nurses from among the displaced persons of Europe to Tasmania, and plans are under way to amend the Act and regulations to provide for a period of training and an oral examination prior to registration.

B. M. CARRUTHERS, Chairman.
P. A. DRISCOLL, Secretary.

APPENDIX IV.

REPORT OF ST. JOHN'S PARK FOR THE YEAR ENDED 30TH JUNE, 1949.

Statistics.

Number resident, 30.6.48		354
Admissions during the year		270
Total		624
Less—		
Discharges	181	
Died	76	
		257
Patients resident, 30.6.49		367

Admissions.

Admissions totalled 270 (177 males and 93 females). These figures show an increase over those for the previous year when 228 persons (165 males and 63 females) were admitted.

Discharges.

There were 181 discharges (128 males and 53 females). These figures show an increase over those for 1947-48, when 159 (114 males and 45 females) were discharged.

Mortality.

The number of deaths was 76 (47 males and 29 females). The average age of the people who died in the Institution was 76·65 years.

Daily Average.

The daily average number of inmates was 353·44 (216·61 males and 136·83 females), compared with 345·32 (213·02 males and 132·30 females) for the previous year.

Revenue.

The revenue received from all sources amounted to £32,539 17s. 9d., which was £12,903 1s. 11d. more than that collected the previous year.

Expenditure.

The total expenditure for the upkeep of the Institution was £76,885 2s. 6d., being an increase of £18,274 5s. 4d. compared with the previous year. The net cost was £44,345 4s. 9d.

Gross and Net Cost of Maintenance.

There was an increase in the gross and net cost, as shown hereunder:—

	£	s.	d.
Gross daily cost per inmate, 1948-49	0	11	11·03
Gross daily cost per inmate, 1947-48	0	9	3·29
Net daily cost per inmate, 1948-49	0	6	10·49
Net daily cost per inmate, 1947-48	0	6	2·01
Gross weekly cost per inmate, 1948-49	4	3	5·21
Gross weekly cost per inmate, 1947-48	3	4	11·03
Net weekly cost per inmate, 1948-49	2	8	1·43
Net weekly cost per inmate, 1947-48	2	3	2·07

Thanks for Donations.

On behalf of the inmates of St. John's Park I desire to thank all those kind persons who again so generously provided gifts of money and goods for their comfort during the year.

Devotional.

During the year the spiritual welfare of the inmates was given every attention by the various denominations, services being held regularly at the Institution.

L. WOODHOUSE, Superintendent.

SECTION III.—REPORT OF DIRECTOR OF TUBERCULOSIS FOR THE YEAR ENDED 31ST DECEMBER, 1948.

NOTIFICATIONS.

During the year 188 new cases of Tuberculosis were notified to the Department of Public Health, of which 168 were pulmonary and 20 non-pulmonary.

With regard to the 168 cases of Pulmonary Tuberculosis, the undermentioned particulars are submitted:—

Age and Sex Distribution.

Group	Males.	Females.	Total.
Under 15 years	3	4	7
15 to 24 years	12	21	33
25 to 34 years	25	30	55
35 to 45 years	13	7	20
Over 45 years	43	10	53
	96	72	168

Stage of Disease on Discovery.

Minimal	67
Moderately advanced	70
Advanced	31
	168

From the above figures it can be seen that approximately one-third of the cases were discovered in a minimal stage, which may be attributed to the work of the Mass X-ray Unit and a greater community awareness of the tuberculosis problem. This has definitely resulted in a larger proportion of minimal or early cases being discovered.

Mode of Discovery.

By private physicians	48
By clinics (as contacts)	18
By public hospitals	58
By mass X-ray surveys	44
	168

The mass X-ray was responsible for the discovery of 44 of the cases, and at least 18 were discovered by the chest clinics as a result of being examined because they were contacts of known cases. It is also noted that 56 of the 168 notified had positive sputum. An endeavour has been made to check on the sputum examination, and attention is being given to relative values of direct smear, concentration and culture methods, and of gastric lavage.

Contacts.

In connection with the 168 notified cases, 674 house contacts were listed, to be the responsibility of the chest clinics. The fact that Tuberculosis is largely a family disease still impresses. This is substantiated by the fact that 48 cases were known to have a family history of Tuberculosis.

Predominant Symptom on Discovery.

Loss of weight	34
Cough with sputum	32
Cough	32
Haemoptysis	25
Lassitude (tiredness)	16
Night sweats	8
Pleurisy or pleural effusion	6
Pneumonia or Broncho-pneumonia	5
Sore chest or pain in chest	9
Debility	3
Shortness of breath	2
Bronchitis	2
Diabetic	1
Indigestion	1
Loss of appetite	1
Husky voice	1
Headaches	1

In most cases the predominant symptom was given as a combination of two or three of the abovementioned symptoms.

Occupations (Generally).

Household duties	41
Pensioner (invalid, old age or war)	17
Clerk	10
Unemployed	5
Factory hand	8
Labourer	7
Farm labourer	7
Nursing (male and female)	7
Miner	5
Student	6
Shop assistant	5

And one each of various other occupations.

Disposal of Notified Cases.

As regards disposal of cases, it will be seen that all but 25 were hospitalized and of the 25, ten were not considered as needing institutional treatment, by reason of age, absence of danger to others, and as having favourable home conditions. All were under clinic supervision. Another four were treated by their own physicians, four refused to go to a sanatorium, and two left the State. All of this presents a favourable picture as regards disposal of notified cases.

Admitted Tasmanian Sanatorium	66
Admitted Perth Sanatorium	26
Admitted Repatriation Hospital	29
Admitted Vaucluse Hospital	5
Admitted Launceston General Hospital	5
Admitted Devon Public Hospital	1
Discovered as result of post mortem	11
Diagnosis revoked	1
Left State	2
Receiving private treatment	4
Recalcitrant patients	4
Out-patients (Clinics, Repatriation Hospital and own homes—Sanatorium admission not necessary)	10
Treatment unknown	3
Died soon after notification	1
	168

DEATHS.

During the year 80 persons died from pulmonary tuberculosis of whom 41 were over 44 years of age. Of six who died from tuberculosis other than pulmonary, four were over 44 years of age.

The following statement shows the deaths from pulmonary tuberculosis in their respective age group and sex:—

Group	Males	Females	Total
Under 15 years	1	2	3
15 to 24 years	2	8	10
25 to 34 years	7	10	17
35 to 44 years	7	2	9
Over 44 years	32	9	41
TOTAL ...	49	31	80

TREATMENT.

The work of the two sanatoria reveals that streptomycin has been largely availed of, also that chest surgery is being increasingly resorted to in our mode of treatment. It is felt that chest surgery in this State has reached a high standard, and consultations of physician and surgeon and radiological members of the Division have become a regular procedure.

The Commonwealth Serum Laboratories at Hobart and Launceston have done all the bacteriological work for sanatoria and clinics. Their co-operation has meant a very great service to the Division.

Tasmanian Sanatorium.

Treatments, &c., carried out during the year 1948.

(1) Artificial pneumothorax refills	671
(2) Pneumoperitoneal refills	386
(3) B.S.R. examinations	1005
(4) X-rays, including staff	979
(5) Thoracoplasty	5
(6) Phrenic crush	46
(7) Pneumolysis	21
(8) Streptomycin cases	32

The occupational therapy work at the Tasmanian Sanatorium has been again splendidly conducted by the Red Cross workers. This has proved a boon in our oversight of tuberculosis sufferers.

Recalcitrant Patients.—Five patients left against medical advice, two for domestic reasons, and three for temperamental reasons.

Perth Sanatorium.

Treatments, &c., carried out during the year 1948.

(1) Artificial pneumothorax	6
(2) Artificial pneumothorax refills	101
(3) Pneumopertoneal refills	—
(4) B.S.R. examinations	95
(5) X-rays	114
(6) Thoracoplasty	—
(7) Phrenic crush	—
(8) Pneumolysis	—

Also one Bronchogram and two bronchoscopies.

Recalcitrant Patients.—Three patients (two males and one female) were expelled. These were mental cases; the two males being discharged to their homes, and the female transferred to Lachlan Park Hospital. Ten patients (eight males and two females) left against medical advice, two for domestic reasons, five for temperamental reasons, and three because they refused further treatment. Three have since been re-admitted.

Supervision of Nurses From the Tuberculosis Point of View.

It is seen that, at the Royal Hobart, Launceston General and Devon Public Hospitals, the three main public hospitals, the nurses are systematically Mantoux tested and X-rayed. At the Royal Hobart Hospital 22 members of the staff changed from negative to positive Mantoux, and at the Launceston General Hospital three of 14 trained staff, whose Mantoux changed from negative to positive, developed radiological lesions, also one whose Mantoux had become positive in the previous year. B.C.G. vaccination has been instituted on a voluntary basis for nursing staffs at the public hospitals.

Royal Hobart Hospital.

During the year 1948, 22 members of the staff changed from negative to positive. Of these—

7 were trainees in their first year (1 with erythema):
6 were trainees in their second year (2 with erythema):
3 were trainees in their third year:
1 was a trainee in her fourth year:
4 were trained staff.

All members of the staff, trained and untrained, who are Mantoux negative, are subjected to three-monthly tests of 1-10,000. If these are doubtful, or negative, all are repeated one week later with 1-1000. If there is no loss of weight, no cough, and no malaise or indisposition, they are X-rayed six-monthly.

As in the past, trainees who have commenced with positive Mantoux, and those who have changed, have been X-rayed and B.S.R. taken three-monthly, any unsatisfactory ones being done each month.

In General Wards—50 new probationers commenced during 1948; eight gave initial positive reactions, seven changed to positive, seven were vaccinated with B.C.G. (one not taking, two not followed up). During the year 11 of the remainder of the 50, and two of the initial positive ones, discontinued their training.)

In Obstetric Wards—23 new trainees commenced during 1948; 17 gave initial positive reactions, and those who were negative remained so.

Trained Staff—36 commenced during 1948; 22 gave initial positive reactions, two changed to positive.

B.C.G.—The total number given was 20, and of these one trainee and one trained nurse failed to give the desired reaction. Also, out of this group, one trainee had to be given instant dismissal and one absconded before results could be obtained.

Nursing Aids—25 commenced during 1948; nine gave initial positive reactions, one changed to positive.

Launceston General Hospital.

Mantoux Testing.

Initial positive tests—

(*a*) Trained staff	6
(*b*) Trainees	7
(*c*) Nurse assistants	8
(*d*) Medical orderlies	4

Changes from negative to positive—

(*a*) Trained staff	—
(*b*) Trainees	14
(*c*) Nurse assistants	—
(*d*) Medical orderlies	—

Of those trainees whose Mantoux changed—

Six were in their first year of training:
Six were in their second year of training:
Two were in their third year of training.

Of these, a high proportion developed symptoms, viz. three developed pain in the chest, three developed erythema nodosum, whilst several suffered from vague symptoms and were mildly febrile.

Three of the 14 trainees developed radiological lesions, and so did one trainee whose Mantoux became positive in 1947.

Devon Public Hospital, Latrobe.

Seven nurses changed from negative to positive. In no case did X-ray of the lungs reveal signs of tuberculosis.

Chest Clinics.

The very great value of the Chest Clinics is demonstrated, not only in seeking out and examining the family and business contacts of the notified cases, but also as the best method for dealing with suspicious X-rays discovered in the Mass X-ray Surveys. The clinics provide the surest follow up of these cases; we have had ample evidence of this.

Pleurisy with effusion cases are still observed for a period of at least two years by the clinics after discharge from hospitals.

Table P.

Particulars of Work Performed by Chest Clinics during the Year 1948.

	Hobart.	Launceston.
Examinations.		
People referred to Chest Clinics from Mass X-ray for further investigation	224	84
People referred to Chest Clinics by doctors because of suspicious symptoms		
Contacts of known cases examined for first time	377	425
People examined at Chest Clinics and admitted to Sanatorium	82	55
Cases of Tuberculosis discovered in contacts examined	11	7
Cases still under observation for Tuberculosis amongst contacts	2	....
Sanatorium cases transferred to Clinics for special treatment	13	37
Re-examinations.		
Cases and observation cases	1,626	1,012
Contacts	1,320	651
Treatments and Investigations.		
Artificial pneumothorax refills	373	314
X-ray examination (films)	620	1,257
X-ray examinations (screenings)	147	170
Gastric lavages	17	81
B.S.R. examinations	498	88
Sputum examinations	496	341

Out-patient Department, Devon Public Hospital, Latrobe.
Artificial pneumothorax refills—184.

Mass X-Ray Examinations.

The mass X-ray campaign discovered during the year 44 cases not previously known to be suffering from tuberculosis, of whom 21 were minimal or early cases, 22 were moderately advanced and one advanced. Thirty-one also were placed under observation; to be periodically X-rayed and examined. Some of these will no

doubt be found to be sufferers and needing institutional treatment. Our greatest want in this regard is still a Clinic with Sister and Tuberculosis Officer for the North-West Coast district. This I consider the most pressing need for our Division in Tasmania. During the year 36,516 persons availed themselves of the Mass X-ray, of whom 18,408 had not been previously X-rayed.

Since the inauguration of the Mass X-ray Scheme in 1945, 76,500 have been X-rayed to the end of 1948. Included in this 76,500 would be a number under 14 years, so that one may say that at least 73,000 over 14 years have submitted themselves. As the population of Tasmania is 264,579, of whom approximately 170,000 would be over 14 years, this means that, of 170,000 citizens, 73,000 have been X-rayed.

Hobart Unit.

The total number of persons who presented themselves during the year for X-ray on the miniature films in the Hobart Survey was 13,221, of whom 5115 were persons who had never been X-rayed under the Mass X-ray Survey previously. The remainder, namely 8106, were persons who had previously submitted themselves for X-ray.

TABLE Q.

Return showing Results of Large X-ray Film Examination of Persons Recalled, with Results from previous Twelve Months—Hobart Survey.

	1947.	1948.
Persons passed on large film (no abnormality discovered)	156	291
Persons with non-tuberculous conditions (see Table R.)	76	69
Persons with previously diagnosed tuberculosis—		
Not healed	—	1
Healed	5	4
Persons with tuberculous lesions requiring no action—		
Healed primary tuberculosis	26	12
Healed secondary tuberculosis	1	5
Persons with newly discovered "Significant" tuberculous lesions (see Table S.)—		
Notified for treatment	25	27
Notified for observation	8	4
Total	257	413

TABLE R.

Return showing Non-Tuberculous Conditions in Mass X-ray—Hobart Survey.

Condition.	No. of Cases
Asthma	1
Aneurism	1
Atypical pneumonia	1
Broncho-pneumonia	3
Broncnitis	13
Bronchiectasis	1
Basal fribrosis	6
Cardiac	4
Consolidation of unknown origin	5
Dextrocardia	1
Emphysema	2
Fibrosis of lung	5
Enlarged thyroid	1
Hydatid	2
Hydatid Cyst	1
Malignant of lung	1
Old rib resection	1
Pleural effusion	2
Rib abnormality	5
Scoliosis	4
Sarcoidosis	1
Thickened pleura	8
Total	69

TABLE S.

Return showing Newly Discovered "Significant" Tuberculous Lung Lesions in respective Age Groups, plus Condition of Cases Notified for Treatment—Hobart Survey.

Group	Notified for Treatment			Condition on Notification				Observation		
Age	Males	Females	Total	Early	Moderately Ill	Advanced	Total	Males	Females	Total
Under 14		1	1	1			1			
14 to 19	1	1	1		1		1		1	1
20 to 24	4	1	5	2	3		5			
25 to 34	7	5	12	6	5	1	12	1	1	2
35 to 44	2	1	3	2	1		3			
45 to 54	2	2	4	1	3		4			
55 and over	1		1	1			1		1	1
Total	16	11	27	13	13	1	27	1	3	4

Mobile Unit.

The total number of persons who presented themselves during the year for X-ray on the miniature films in the Mobile Survey was 23,295, of which 13,293 were persons who had never been X-rayed under the Mass X-ray Survey previously. The remainder, namely 10,002, were persons who had previously submitted themselves on the first visit of the Mobile X-ray Unit to their respective municipalities.

TABLE T.

Return showing Results of Large X-ray Film Examination of Persons Recalled, together with Results from previous Twelve Months—Mobile Unit Survey.

	1947.	1948.
Persons passed on large film (no abnormality discovered)	274	370
Persons with non-tuberculous conditions (see Table U.)	149	113
Persons with previously diagnosed tuberculosis—		
Not healed	1	2
Healed	7	7
Persons with tuberculous lesions requiring no action—		
Healed primary tuberculosis	36	37
Healed secondary tuberculosis	13	16
Persons with newly discovered "Significant" tuberculous lesions (see Table V.)—		
Notified for treatment	22	17
Notified for observation	31	27
Total	533	589

TABLE U.

Return showing Non-tuberculous Conditions in Mass X-ray—Mobile Unit Survey.

Condition.	No. of Cases.
Broncho-pneumonia	5
Basal fibrosis	5
Bronchiectasis	4
Bronchitis	13
Cardiac	5
Consolidation of unknown origin	4
Cyst of lung	1
Enlarged thyroid	2
Fibrosis of lung	19
Dextrocardia	1
Hydatid	1
Pleural effusion	2
Malignant of lung	2
Rib abnormality	7
Scoliosis	13
Silicosis	11
Thickened pleura	18
Total	113

TABLE V.

Return showing Newly Discovered "Significant" Tuberculous Lung Lesions in respective Age Groups, plus Condition of Cases Notified for Treatment—Mobile Unit Survey.

Group	Notified for Treatment			Condition on Notification				Observation		
Age	Males	Females	Total	Early	Moderately Ill	Advanced	Total	Males	Females	Total
Under 14	—	—	—	—	—	—	—	—	—	—
14 to 19	—	1	1	1	—	—	1	1	1	2
20 to 24	3	—	3	2	1	—	3	2	—	2
25 to 34	—	4	4	1	3	—	4	4	2	6
35 to 44	5	—	5	3	2	—	5	6	—	6
45 to 54	1	—	1	—	1	—	1	4	4	4
55 and over...	3	—	3	1	2	—	3	6	1	7
Total...	12	5	17	8	9	—	17	19	8	27

Hospital Surveys.

Launceston General Hospital.—Means of providing a miniature X-ray of all in-patients at this hospital have been available for the past two years. Certain difficulties have been encountered, which should be a guide in our future work in this regard. One difficulty at present is that many patients are admitted at night when the X-ray staff is off duty. This and other difficulties it is hoped to overcome. During the year 1948, 1208 miniature X-rays were taken, of which 352 showed abnormalities, and tuberculosis was revealed in 16.

Lachlan Park Hospital.—The first survey in 1947 showed that there were five patients with tuberculous lesions. In one case the disease was contracted before admission, and was probably inactive. Another case was probably inactive. Two cases, in which it was active, both died, one of Tuberculosis and one of another disease.

The second survey in 1949 showed two active, contracted before admission; one active, contracted whilst there; one active in 1947, in which it had been arrested.

In both surveys the number of patients not done was so small as to be negligible. Between the two surveys one patient developed a rapidly spreading infection and died.

All members of the staff are X-rayed on commencing duty, and practically all are done whilst the Unit is operating at the hospital, and over a number of years there has been only one active case, which occurred after returning from leave for military duties.

GENERAL.

The scheme for using part of Vaucluse Hospital as a Thoracic Surgery Unit has not yet eventuated, owing to lack of trained Sisters for this work. As is shown, this work has been performed at the Royal Hobart Hospital. However the operating theatre was completed and it is hoped soon to have this in operation. The plan on which we decided, namely to have all major chest Surgery done at Hobart, has worked successfully, cases being easily transferred there for that purpose.

Meantime, beds at Vaucluse have been used to accommodate a number of notified cases, and one thanks sincerely the Superintendent of the Royal Hobart Hospital for his splendid co-operation here. This has worked excellently, particularly with regard to cases who were thus able to have an initial period of bed rest before commencing active treatment at the Sanatorium.

The success of Perth as a Sanatorium has been most gratifying, and we have not found the distance from Launceston a detriment. The link up of the Perth Sanatorium and the Launceston Clinic under the one Medical Officer (Dr. Sibthorpe) has worked successfully.

It will be seen that during the year beds were available as follows:—

Hobart Sanatorium	100
Repatriation Tuberculosis Hospital (which caters for returned men from the whole State.)	50
Perth Sanatorium	35
After-care Home	15
Vaucluse Hospital	12
	212

We have been able in the State to use all these beds, and in addition at least six at the Royal Hobart Hospital and four at the Launceston General Hospital.

In Tasmania one is able to record complete co-operation between the State Division of Tuberculosis and the Repatriation Department. During the year there was an average of 50 patients in residence at the Repatriation Tuberculosis Hospital. A considerable number of these were discovered in the State Mass X-ray Survey. This can be attributed to the fact that such a large proportion of the young male adults of the State were in the armed forces, and that all such are entitled to Repatriation Hospital treatment.

Allowing for an average annual death rate of 90, it can be seen that we have had available beds in ratio of almost more than 2·5 per annual deaths.

During the year our booklet "What You Should Know About Tuberculosis" has been handed to every person who has had an X-ray; we are thus very close to accomplishing our aim to have one in every household in Tasmania. Also, weekly broadcasts on tuberculosis have been given from every commercial radio station.

As a member of the Tuberculosis Committee of the National Health and Medical Research Council, I attended the meeting in Melbourne. Our endeavour in the State is to work in accordance with the resolutions of that Committee.

An estimate of the incidence of tuberculosis in this State is furnished below:—

An endeavour has been made to ascertain the exact position of all cases notified during the past ten years and still living. This is important, particularly with regard to contacts of all such cases. Such cases totalled 794, of these 340 are considered arrested and apparently cured and not now a danger to their contacts.

This leaves 454 cases to consider. Of these, 162 are considered quiescent, i.e. in the first stage of arrest or healing. Their sputum has become negative, there are no constitutional signs or symptoms of tuberculosis, the X-ray shows satisfactory fibrosis or scarring, and B.S.R. is normal.

Such cases are still under observation and advice, with the expectation that, if they remain in this so-called quiescent state for two years, they can then be termed arrested.

This then leaves 292 cases, 234 active and 58 undetermined. These 58 cases are being investigated. It is considered a proportion of them are quiescent or arrested.

Tuberculosis Allowances.

Payment to sufferers, in accordance with the scale laid down by the Commonwealth Government, continued to be made throughout the year; the rate of allowance being 25s. per week, plus 5s. for each child under the age of 16 years; single persons continued to receive 10s. per week whilst awaiting admission to sanatoria, or after discharge whilst under medical supervision of either the Chest Clinic or their private medical practitioner.

Staff.

I wish to record appreciation of the work of Sanatorium Medical Officers, Dr. J. H. R. Tremayne and Dr. G. E. Sibthorpe, and of the work carried out by our Chest Surgeon, Dr. J. B. G. Muir.

I would also like to express appreciation of the support and co-operation of all members of the staff at the Tuberculosis Division, Chest Clinics, and both Sanatoria, all of whom have assisted in our programme.

T. H. GODDARD, M.B.,

Director of Tuberculosis.

SECTION IV.—REPORT OF DIRECTOR OF MENTAL HYGIENE FOR THE YEAR ENDED 31ST DECEMBER, 1948.

During the year steady progress in mental hygiene has been maintained, but there still exists a wide scope for further progress, both on the preventive side of psychiatry on the one hand, and in institutional care on the other. It is essential that the headquarters of the Division of Mental Hygiene be suitably housed in order to provide adequate clinical facilities and to allow its officers to work effectively as a team. Ever since the creation of the Division two and a half years ago, work has been carried on in temporary, unsatisfactory and scattered quarters. It is anticipated that early in the new year some six rooms in Waterloo House will be made available for both clinical and administrative purposes. This should undoubtedly make for greater efficiency.

As anticipated in our last year's report, psychiatric services have come increasingly into demand at all major general hospitals. More and more cases are being referred to the psychiatrist by other practitioners, who now recognise that many cases of illness are psychologically determined. Although there are, unfortunately, no accurate statistics to bear it out, it is felt that in recent years the incidence of neurosis has become considerably greater than it was a generation ago. Some of the factors responsible are the decline of religion in the community, the decrease in moral values, the general feeling of insecurity, the lack of normal home life (particularly in the case of younger people), and a decrease in the incentive to work associated with an unfortunate increase in "Pension consciousness."

Early in 1949 it is proposed to increase the number of sessions for psychiatric clinics at the Royal Hobart Hospital to eight, six of which will be conducted by Departmental officers of the Division of Mental Hygiene.

In order to give a more balanced distribution of mental hygiene facilities in the State, it is strongly recommeneded that an assistant psychiatrist be appointed to Launceston to conduct therapeutic clinics at the Launceston General Hospital and diagnostic clinics at the Devon and Spencer Public Hospitals. At the present time, this work is carried out by the Director, who, because of other duties, is quite unable to devote sufficient time to this important work.

Summary of Patients Seen by Director of Mental Hygiene during the Year 1948.

Centre.	Clinics.	Patients.
Royal Hobart Hospital	71	1,183
Launceston General Hospital	35	401
Devon Public Hospital	11	189
Spencer Public Hospital	11	96
Public Health Department and others	—	593
		2462

The Psychologist has attended the Royal Hobart Hospital weekly and the Launceston General Hospital monthly, and visited Lachlan Park Hospital twice monthly.

Summary of Patients Seen by Psychologist during the Year 1948.

Centre.	Clinics.	Patients.
Public Health Department and Royal Hobart Hospital	54	286
Launceston	—	58
Launceston General Hospital	17	77
Devon Hospital	4	19
Spencer Hospital	3	7
Others	15	47
		494

Towards the end of the year, a psychiatric social worker was appointed. The need for such an officer had been realised for some time. As a result of this appointment, better follow-up of cases, and social investigation and management, will be possible. The duties of this officer will be linked with the work at hospital clinics, Lachlan Park, Millbrook Rise, and the Mental Deficiency Board.

Inebriates for a long time have presented a very difficult problem with regard to disposal and treatment. It is undesirable for them to be treated for long periods at general hospitals or Millbrook Rise Psychopathic Home. Those cases admitted to Lachlan Park as voluntary boarders usually demand their discharge within a few days, with the result that they inevitably return to their alcoholic habits. It is now proposed to proclaim Lachlan Park as a Home for Inebriates, under the provisions of the Inebriate Hospitals Act, whereby inebriates will be detained for a period of three months, on the order of a magistrate.

Unfortunately, so far no visible move has been made to give effect to the proposed erection of a new mental hospital. The unsatisfactory conditions at Lachlan Park are giving rise to increasing concern. In these enlightened times, there is little or no justification for allowing this state of affairs to continue indefinitely. Meanwhile, the staff of that institution is rendering splendid public service in spite of the additional problem of staff shortages which, incidentally, has been further aggravated by the introduction of the 40-hour week.

All current modern methods of treatment have been carried out with considerable skill and efficiency, both at Lachlan Park and Millbrook Rise.

Shortage of staff has been responsible for the restrictions of admissions to Millbrook Rise, practically throughout the year.

The erection of the Medical Officer's residence in close proximity to Millbrook was completed towards the end of 1948.

CHARLES R. D. BROTHERS, M.D., M.R.A.C.P.,
Director of Mental Hygiene.

Appendix V.

REPORT OF THE CHAIRMAN, MENTAL DEFICIENCY BOARD, FOR THE YEAR ENDED 31st DECEMBER, 1948.

The number of defectives coming under the care and control of the Mental Deficiency Board continues to increase, this year a total of 180 being so placed at the end of the year. Accommodation at the Government Institution for Defectives at New Norfolk has been increased, and 50 male patients can now be housed there. There is, however, still a desperate shortage of accommodation, and even the additional accommodation so given is not adequate for present circumstances.

No further steps have been taken this year towards the provision of any institution for the care, control, and education of mentally defective children. This need is as pressing as ever, but apparently at the present time little can be done to satisfy it. The question of provision of a hostel for adult defectives suitable to earn a living in the community, though not in complete independence, was also discussed. The Minister agreed, in principle, that the provision of a hostel for such defectives, in which they could live reasonably cheaply and go to suitable employment daily, was most desirable. Nothing further has been done, however, to implement this plan, although it was given Ministerial approval.

Summary.

For the year ended 31st December, 1948, there was a total of 180 patients under the Board's control, apart from a large number known to be mentally defective, but not brought under active control because they are already in institutions, such at St. John's Park, or are adequately cared for by relatives at home. Of these, 37 were new cases taken over by the Board, or old patients whose orders had previously lapsed and who had again come under notice. Six patients had been transferred during the year to the Mental Hospital, and the orders of three had lapsed on good behaviour.

Of the 180, 108 were in institutions, 69 being males and 39 females. Of the remainder, 10 were under supervision and 62 under guardianship, 25 of these being males and 37 females. There is still an increasing number of patients being notified to the Board and placed under some form of legal control. This is particularly marked in relation to those defectives brought under notice by the Police Magistrate or Police Department, particularly with regard to male defectives, many of whom are committed for sex delinquencies. Apparently the lack of suitable employment and the fact that employers are not prepared to put up with the conditions contingent upon employing defectives have meant the lessening of employment available for defectives, and an increasing number of defectives have, therefore, come into the community. It is not surprising, therefore, that a greater number have come under notice of the Police through petty acts of crime. This situation is further aggravated by the lack of suitable schooling facilities for the children, and the complete lack of institutional facilities. By the time the child is old enough to be taken over and placed in an institution available to the Board, he has become less amenable and more likely to develop into a delinquent case because of the lack of suitable training and supervision in earlier years.

The only answer is the provision of adequate institutions for appropriate training facilities for defectives from early years up to senility.

CHARLES R. D. BROTHERS, M.D., M.R.A.C.P.,
Chairman.

Appendix VI.

REPORT OF THE STATE PSYCHOLOGICAL CLINIC FOR THE YEAR ENDED 31st DECEMBER, 1948.

During the year 1948, a total of 221 new cases, apart from a number of old cases, was examined by the State Psychological Clinic. Of these, 129 were males and 92 females. The classification of these cases is shown below:—

Vocational guidance was given to 9 male patients and 3 female, a total of 12. Emotional guidance was given in the case of 2 males and 3 females, a total of 5. Of the remainder who were examined, 35 males and 22 females were found to be

of normal or superior intelligence. Fifty-two males and 28 females were of inferior intelligence. Those who were classified as mentally defective were 24 males and 27 females. A further 7 males and 9 females were ascertained to be imbeciles.

Amongst the cases noted above, 21 were referred by the Court, Gaol, Magistrates, or Probation Officers, and by the Children's Court.

The work of the Clinic was carried out at Hobart, Launceston, Latrobe and Wynyard.

CHARLES R. D. BROTHERS, M.D., M.R.A.C.P.,
Director of Clinic.

APPENDIX VII.

REPORT OF LACHLAN PARK HOSPITAL FOR THE YEAR ENDED 30TH JUNE, 1949.

The year closed with 662 patients in hospital and 89 on trial leave. An analysis of admissions reveals that, of the 144 patients admitted for the first time during the year, no less than 44 were cases of Senile Dementia. It is believed that many of these cases could be and should be cared for in a home for the aged and infirm rather than in a mental hospital, but the lack of other accommodation makes their admission to this hospital inevitable. Many of them live only a few weeks, and in same cases only a few days, after admission.

Another fact which emerges from the Tables is that, if one deducts two groups of incurables, namely cases of Senile Dementia and Congenital Mental Deficiency, who were admitted, from the total First Admissions, one finds that the potentially curable remainder is only 83. As 59 patients were classified as cured during the year, it will be seen that mental illness occurring before the senile period has a very high recovery rate.

The major function of this hospital is in fact the treatment and cure or alleviation of mental illness, and its custodial function whilst unfortunately necessary is of secondary importance.

As has been emphasised before, the curative work of this hospital is carried out under considerable difficulty and under adverse conditions due to the antiquated and unsuitable wards, and to the lack of modern facilities. It is therefore with great satisfaction that the writer has, during the last year, seen plans drawn up which, if put into effect, will give Tasmania a Mental Hospital second to none. As it would appear that about one person in twelve spends some time in a mental hospital during his lifetime, the importance of an adequate mental hospital is a matter which closely affects a very large percentage of the community. Unfortunately the stigma attached to mental illness by ignorance and superstition tends to obscure its frequency. One does not advertise the fact that an uncle or a cousin has been in a mental hospital, but nevertheless there must be comparatively few people who have not a relative or forebear who has suffered from mental illness.

The staff position is still far from satisfactory. Though there are now more nurses on the staff than at any time since the War, there is a serious deficiency of trained Psychiatric Nurses and very few of the junior nurses are training. A large percentage of junior nurses are in employment for only a few months.

This large "floating population" of inexperienced nurses is most unsatisfactory, and is due to existing economic conditions, in part to the fact that the remuneration, whilst good, is not high enough to outweigh the better amenities, hours of duty, and more attractive work which may be obtained in other industries, and in part to the irrational stigma still associated with mental illness and mental hospitals.

Were it not for the fact that the hospital has some 35 European immigrants on its nursing staff, the position would be critical. Most of these women have proved to be excellent nurses, but their limited knowledge of the English language has been a severe handicap in many instances. Nevertheless, the small number of nurses training to become qualified indicates that a very serious shortage of trained Psychiatric Nurses may occur in some years' time.

The male nurses, or attendants as they are called, are on the other hand in reasonably good strength, and many young men of excellent character and ability have become trained Psychiatric Nurses during the past few years.

The greatly increased work of the Secretary's staff has necessitated the creation of an office of Assistant Secretary. The appointment has lessened the amount of overwork required of the Secretary, but the conditions under which the filing has to be carried out are poor in the extreme. A new room for the voluminous files is an urgent requirement.

The Farm Profit and Loss Account shows a loss of £364. This is due to the recent salary increases of farm employees and to the fact that much of the produce is sold to the hospital at less than market value.

Valuable contributions have been made by the hospital auxiliaries at Hobart, Launceston, and Ulverstone to the patients' comfort and welfare. The canteen has been staffed on Sundays by the Hobart Auxiliary and has filled a pressing need. In fact, it is now plain that the canteen is not nearly large enough.

The Red Cross Society continues the valuable work of Occupational Therapy for ex-servicemen and others. Unfortunately, the Female Division is without any Occupational Therapist.

The Repatriation Commission shows films to the patients weekly. These are primarily for ex-servicemen, but other patients are permitted to attend. The quality both of the pictures shown and of the sound reproduction have improved greatly since the Commission has made itself responsible for these entertainments. Our thanks are due to these organisations for the benefit and enjoyment given to the patients by their works.

Appended are the Statistical Tables for the year ended 30th June, 1949.

J. R. V. FOXTON, Medical Superintendent.

WILLIAM J. FREEMAN, M.R.A.C.P., Chairman,
W. R. C. RYAN,
M. K. DIXON,
CHARLES R. D. BROTHERS, M.D., M.R.A.C.P.,
} Official Visitors.

TABLE 1.

Table showing Admissions, Re-Admissions, Discharges and Deaths during the Year 1948-49.

	Males.	Females.	Total.	Males.	Females.	Total.
In Hospital on 30th June, 1948	...	...	...	300	348	648
Admitted for first time during 1948-49	65	79	144			
Admitted for second or more times during 1948-49	12	8	20			
Returned from Trial Leave during 1948-49	35	34	69			
Total Admitted and Returned	...	...	...	112	121	233
Total under care during 1948-49	...	...	...	412	469	881
Discharged from Hospital, 1948-49	11	8	19			
Proceeded on Trial Leave	66	72	138			
Escaped	1	...	1			
Died	28	33	61	106	113	219
Remaining in Hospital on 30th June, 1949	...	...	...	306	356	662

TABLE 2.

Table showing numbers of Patients Proceeding on, Returning from, and Discharged from Trial Leave during the Year 1948-1949.

	Males.	Females.	Total.	Males.	Females.	Total.
On trial leave on 30.6.48	....	....	....	33	45	78
Proceeded on trial leave during 1948/49	....	....	....	66	72	138
Total on trial leave during 1948/49	....	....	....	99	117	216
Returned to hospital from trial leave during the year 1948/49	35	34	69			
Discharged from trial leave during 1948/49	22	31	53			
Died whilst on trial leave	2	3	5	59	68	127
Remaining on trial leave on 30.6.49	....	....	....	40	49	89

TABLE 3.

Table showing the Manner in which Patients were admitted during the Year 1948-1949.

How Admitted.	Males.	Females.	Total.
Private Order	49	68	117
Justice's Order	2	3	5
Magistrate's Order	13	7	20
Voluntary Boarder	9	8	17
Governor's Warrant	3	1	4
Sec. 382 of Criminal Code	1	0	1
Returned from trial leave	35	34	69
Total Admitted and Returned 1948/49.	112	121	233
First Admission	65	79	144
Second "	7	2	9
Third "	1	2	3
Fourth "	1	3	4
Fifth Admission and over	3	1	4
Returned from trial leave	35	34	69
	112	121	233

TABLE 4.

Table showing form of Mental Disorder on Admission for 1948-49, *and the form of Mental Disorder of Patients in Hospital on 30th June,* 1949.

Form of Mental Disorder.	Admissions.			Remaining in Hospital.		
	Males.	Females.	Total.	Males.	Females.	Total.
1. Congenital Mental Deficiency:						
(*a*) With Epilepsy	...	5	5	12	12	24
(*b*) Without Epilepsy	6	6	12	105	93	198
II. Insanity occurring later in Life:						
1. Insanity with Epilepsy	2	1	3	5	11	16
2. Dementia Paralytica	1	1	2	4	1	5
3. Gross Brain Lesion	...	...	...	3	...	3
4. Alcoholic Psychosis	8	2	10	6	1	7
5. Toxic Confusional or Exhaustive Psychosis	...	1	1	...	...	...
6. Manic Depressive Psychosis	7	12	19	20	47	67
7. Involutional Melancholia	2	2	4	1	12	13
8. Schizophrenia	20	17	37	70	61	131
9. Paraphrenia and Paranoid Psychosis	7	5	12	23	32	55
10. Paranoia	...	...	...	3	3	6
11. Dementia—						
(*a*) Senile	16	28	44	9	33	42
(*b*) Presenile	1	2	3	1	6	7
(*c*) Secondary or Terminal	...	...	...	41	43	84
12. Anxiety State	1	...	1	...	...	...
13. Hysteria	...	3	3	...	...	...
14. Psychopathic Personality	2	2	4	...	1	1
15. Parkinsonism	1	...	1	1	...	1
16. Huntingtons Chorea	2	...	2	2	...	2
17. Not Insane	1	...	1	...	...	...
TOTAL ...	77	87	164	306	356	662

TABLE 5.

Table showing the number of Admissions and Re-Admissions, Discharges from Certification and Deaths, and the number of Patients remaining in Hospital on 30th June for each of the last ten years.

Year.	*Admissions and Re-admissions.			*Discharges.												Discharges from Trial Leave.			Deaths. Including Deaths on T.L.			Remaining in Hospital on 30th June, 1949.		
				Recovered.			Improved.			Unimproved.			Total											
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1939-40	90	76	166	5	5	10	41	30	71	9	6	15	55	41	96	...	...	...	31	30	61	317	323	640
1940-41	75	87	162	2	2	4	45	45	90	3	5	8	50	52	102	...	...	...	34	25	59	308	333	641
1941-42	82	100	182	1	...	1	47	57	104	...	6	6	48	63	111	...	...	...	23	23	46	320	347	667
1942-43	68	96	164	4	2	6	44	63	107	6	4	10	54	69	123	...	...	...	19	37	56	315	337	652
1943-44	78	68	146	3	1	4	39	43	82	8	6	14	50	50	100	...	...	...	30	28	58	313	327	640
1944-45	94	94	188	4	...	4	46	45	91	10	12	22	60	57	117	...	...	...	22	33	55	325	331	656
1945-46	79	96	175	4	2	6	36	48	84	11	12	23	51	62	113	...	...	...	35	27	62	318	338	656
1946-47	63	76	139	3	4	7	8	7	15	3	8	11	14	19	33	...	...	...	25	21	46	312	351	663
1947-48	62	74	136	6	...	6	6	3	9	3	2	5	15	5	20	17	27	44	29	30	59	300	348	648
1948-49	77	87	164	4	2	6	3	2	5	4	4	8	11	8	19	22	31	53	30	36	66	306	356	662

* Figures prior to 1947-48 include patients admitted from and discharged to Trial Leave.

TABLE 6.

Table showing Number of Admissions to and Discharges from Certification, and Deaths for the Year 1948-49; *the Percentage of Recoveries to New Admissions; the Average daily number of Patients Resident during the Year* 1948-49; *and the Percentage of Deaths to the Average Daily Number Resident.*

Patients Discharged from Trial Leave are classed as Recovered.

New Admissions.									Discharges from Provisions of Mental Hospitals Act.														Deaths (Not including Deaths Whilst on Trial Leave).			Recoveries Per cent of New Admissions.			Average Daily Number Resident during the Year 1948-49.			Percentage of Deaths to Average Daily Number Resident.		
First Admissions.			Treated Before.			Total New Admissions.			From Trial Leave.			Direct from Hospital.																					
												Recovered.			Improved.			Unimproved.			Total.												
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
65	79	144	12	8	20	77	87	164	22	31	53	4	2	6	3	2	5	4	4	8	11	8	19	28	33	61	33·0	38·0	36·0	305·61	354·55	660·16	9·1	9·3	9·2

TABLE 7.

Table showing in Quinquennial Periods the Ages of Patients Admitted to and Discharged from the provisions of the Mental Hospitals Act, and of those that Died during the Year 1948-49, *and of those remaining in hospital on 30th June,* 1949.

Ages.	New Admissions.			Discharges from the Provisions of Act.													Deaths.			Remaining in Hospital at 30th June, 1949.		
				From Trial Leave.			From Hospital.									Total Discharges.						
							Recovered.			Relieved.			Unimproved.									
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	..	5	5
5 yrs. and under 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	8	3	11
10 „ „ 15	2	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	6	13
15 „ „ 20	2	4	6	...	2	2	1	...	1	1	...	1	...	...	...	2	2	4	...	..	...	12	10	22
20 „ „ 25	4	4	8	3	1	4	1	...	1	...	...	...	...	2	2	4	3	7	...	...	...	7	12	19
25 „ „ 30	9	8	17	4	...	4	2	...	2	...	...	...	...	...	...	6	...	6	...	...	...	16	20	36
30 „ „ 35	12	7	19	2	1	3	...	...	...	...	1	1	1	2	3	3	4	7	...	1	1	29	20	49
35 „ „ 40	5	6	11	2	5	7	...	...	...	...	1	1	2	...	2	4	6	10	...	1	1	27	23	50
40 „ „ 45	6	5	11	1	5	6	...	...	...	...	1	1	...	...	...	1	6	7	2	...	2	28	30	58
45 „ „ 50	5	4	9	4	7	11	1	...	1	...	...	...	...	...	...	5	7	12	4	4	8	26	26	52
50 „ „ 55	3	6	9	1	2	3	...	...	...	...	...	...	...	...	...	1	2	3	2	...	2	26	30	56
55 „ „ 60	7	3	10	2	3	5	...	...	...	...	...	...	...	...	...	2	3	5	...	2	2	35	28	63
60 „ „ 65	6	7	13	1	3	4	...	...	...	1	...	1	...	...	...	2	3	5	3	1	4	30	35	65
65 „ „ 70	8	9	17	1	2	3	...	1	1	...	...	...	1	...	1	2	3	5	5	6	11	24	30	54
70 „ „ 75	4	5	9	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1	4	6	10	10	34	44
75 „ „ 80	3	9	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	5	7	9	26	35
80 „ „ 85	1	5	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	6	9	4	13	17
85 „ „ 90	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1	4	5
90 „ „ 95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Unknown	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	7
Totals	77	87	164	22	31	53	5	1	6	2	3	5	4	4	8	33	39	72	28	33	61	306	356	662

TABLE 8.

Table showing the Causes of Deaths during the Year 1948-49.

Causes of Deaths.	Males.	Females.	Total.
Diseases of the Nervous System—			
Cerebral Hæmorrhage	—	2	2
Epilepsy	3	—	3
Idiocy	2	—	2
Huntingtons Chorea	1	—	1
Diseases of the Cardio-Vascular System –			
Arteriosclerosis	9	3	12
Coronary Occlusion	3	3	6
Myocardial Degeneration	—	2	2
Diseases of the Respiratory System—			
Broncho-pneumonia	2	15	17
Lobar Pneumonia	—	2	2
Pulmonary Fibrosis	1	—	1
Pulmonary Tuberculosis	3	—	3
Diseases of the Digestive System—			
Gastric Carcinoma	1	1	2
Gastro-enteritis	1	—	1
Diseases of the Reproductive System—			
Ovarian Carcenoma	—	1	1
Senility	2	4	6
Totals	28	33	61

TABLE 9.

Table showing Number of patients treated by Physical Methods and Results of Treatment.

Nature of Treatment	Complete Remission			Marked Improvement			Slight or Temp. Improvement			Not Improved			Totals		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
Electro-Shock Therapy :—															
Recent Cases	15	6	21	...	3	3	...	2	2	...	2	2	15	13	28
Chronic Cases	4	2	6	9	5	14	41	25	66	14	5	19	69	37	106
Insulin Shock Therapy	11	6	17	1	1	2	...	2	2	3	5	8	15	14	29
Combined Insulin and Electro-Shock Therapy	3	3	6	...	...	...	...	1	1	2	1	3	5	5	10
Penicillin & Malaria	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Totals ...	33	17	50	10	9	19	41	30	71	20	13	33	105	69	174

TABLE 10.

Statistical Record.

	Males	Females	Total
Estimated Population of Tasmania as at 31-12-48	140,186	134,656	274,842
Proportion of Certified Insane per 1000 of population (including patients on trial leave)	2·466	3·003	2·729
Proportion of Admissions of Certified Insane per 10,000 of population (not including patients returned from trial leave)	5·409	6·451	5.961

TABLE 11.

Financial Statement.

	Year Ended—				
	30.6.45.	30.6.46.	30.6.47.	30.6.48.	30.6.49.
Average daily number of patients	651·78	657·36	656·36	658·47	660·16
Gross cost for year	£81,949	£98,227	£105,332	£124,897	£148,758
Fees received	£9503	£9619	£9566	£9363	£10,377
Other revenue	£329	£270	£178	£185	£167
Gross cost per head per day	6/10·5d.	8/2·2d.	8/9·48d.	10/4·38d.	12/4·17d.
Net cost per head per day	6/0·7d.	7/4·3d.	7/11·73d.	9/6·86d.	11/5·66d.
Farm—					
Loss and profit	(profit) £11	(loss) £261	(profit) £833/4/6	(profit) £1213/18/7	(Loss) £236/3/8

APPENDIX VIII.

REPORT OF MILLBROOK PSYCHOPATHIC HOME FOR THE YEAR ENDED 30TH JUNE, 1949.

During the year 309 patients were admitted to the Home for treatment, a considerable increase over the previous year's figure.

Considerable difficulty has been experienced in maintaining an adequate staff. The Home has been without a housekeeper for over a year, and this has placed a greater burden upon the nursing staff, and in particular upon the Matron.

Facilities for the staff are not what they should be. The Matron has no sitting-room of her own, and there is no provision for staff recreation. Efforts are being made to have these faults rectified.

The Rehabilitation Officer has been on special leave of absence for 18 months, and his work has been carried on when possible by members of the nursing staff.

During the year a trained Psychiatric Social Worker was appointed to the Division of Mental Hygiene, and this has relieved the Red Cross Society of this work which was previously performed by them.

Our thanks are due to the Red Cross Society and the Repatriation Commission, the former for their Arts and Crafts and Social Service work, and the latter for providing weekly picture shows for the ex-servicemen and others.

During the year the Medical Officer's residence was completed after a delay of many years.

The gross cost per head per day has risen by nearly 2s., due to increases in salaries and the rising cost of living, but the net cost per head per day has actually fallen, due to the larger amount collected in fees.

J. R. V. FOXTON, Medical Superintendent.

TABLE 12.

MILLBROOK PSYCHOPATHIC HOME.

Statement showing Form of Mental Disorder on Admission for year ended 30th June, 1949.

Diagnosis—	Males.	Females.	Total.
Anxiety Neurosis	49	58	107
Hysteria	11	12	23
Obsessional Neurosis	1	1	2
Reactive Depression	8	11	19
Schizophrenia	16	24	40
Manic Depressive Insanity	6	7	13
Involutional Melancholia	29	40	69
Senile Melancholia	2	4	6
Psychopaths	5	4	9
Paraphrenia	...	1	1
Senile Dementia	3	1	4
Epilepsy	5	1	6
Parkinsons Disease	4	...	4
Huntingtons Chorea	...	1	1
Alcoholism	1	...	1
Gross Brain Lesion	4	...	4
TOTAL	144	165	309

TABLE 13.

MILLBROOK PSYCHOPATHIC HOME.

Financial Statement.

	YEAR ENDED.				
	30.6.45	30.6.46	30.6.47	30.6.48	30.6.49
Average Daily No. of Patients	32·61	32·24	24·93	24·26	27·2
Gross Cost for Year	£6,221	£8,801	£8,943	£9,249	£11,287
Fees Received	£4,589	£4,968	£3,276	£3,044	£5,204
Gross Cost per Head per Day	10/5·5d	14/11·5d	19/7·86d	20/10·03d	22/8·79d
Net Cost per Head per Day	2/8·9d	8/0·5d	12/3·45d	13/11·73d	13/3·10d

SECTION V.—VITAL STATISTICS SUPPLIED BY THE DEPUTY COMMONWEALTH STATISTICIAN.

Statistical and General.

Population:

Estimated on the 31st December, 1948—

Males	140,186
Females	134,656
Total	274,842

Mean population, 1948 (for whole year)—

Males	134,459
Females	130,120
	264,579
Mean population, 1947 (for whole year)	257,819
Increase for year	6,760

The mean population of the State, as shown by the figures, reveals an increase of 6,760.

Australian Birth-rate for the Year 1948 per 1000 Persons Living.

(As compared with the previous year and a year in the previous decade.)

	1933.	1947.	1948.
New South Wales	16·99	23·24	22·19
Victoria	15·60	23·06	22·06
Queensland	18·14	25·66	24·80
South Australia	15·32	25·24	24·11
Western Australia	17·95	25·58	25·12
Tasmania	19·93	27·69	26·38
Northern Territory	15·23	25·32	22·97
Australian Capital Territory	14·43	38·75	39·90
Australia	16·78	24·06	23·08

Death Rate for 1948 per 1000 Persons Living.

(As compared with the previous year and a year in the previous decade.)

	1933.	1947.	1948.
New South Wales	8·58	9·53	10·04
Victoria	9·59	10·44	10·44
Queensland	8·84	9·15	9·31
South Australia	8·44	9·61	10·25
Western Australia	8·64	9·39	9·10
Tasmania	9·60	9·17	9·55
Northern Territory	12·55	5·96	5·99
Australian Capital Territory	4·19	5·62	6·32
Australia	8·92	9·69	9·96

Deaths in Relation to Disease.

The following return shows the number and causes of deaths during the year 1948, also the death-rate per 10,000 persons living (mean population 264,579), as contrasted with the previous year, 1947 (mean population estimated at 257,819).

Cause of Death.	Number of Deaths, 1947	Death Rate per 10,000 persons.	Number of Deaths, 1948.	Death Rate per 10,000 persons.
General Diseases—				
Typhoid Fever	...	...	1	...
Malaria	...	...	...	...
Smallpox	...	...	...	...
Measles	...	...	7	·3
Scarlet Fever	2	·1	...	...
Whooping Cough	4	·2	5	·2
Diphtheria and Croup	...	...	1	...
Influenza	4	·2	7	·3
Dysentery	1	...	...	...
Syphilis	15	·6	12	·5
Tubercular Diseases	107	4·2	86	3·3
Rheumatic Fever, Rheumatism, and Gout	10	·3	6	·2
Cancer, all forms	298	11·6	294	11·1
Dietic Diseases and Industrial Poisoning	...	...	...	...
Other General Diseases	90	3·4	112	4·2
Total General	531	20·6	531	20·1
Local Diseases—				
Diseases of Nervous System	247	9·6	274	10·4
Diseases of Circulatory System	748	29·0	847	32·0
Diseases of Respiratory Organs	191	7·4	256	9·7
Diseases of Digestive Organs	102	4·0	100	3·8
Diseases of Genito-Urinary System	154	6·0	142	5·4
Diseases of Puerperal Origin	14	·5	11	·4
Diseases of the Skin	3	·1	5	·2
Diseases of Bones and Malformations	26	1·0	29	1·0
Diseases of Early Infancy	128	5·0	111	4·2
Total Local Diseases	1613	62·6	1775	67·1
Deaths Produced by External Causes—				
Accident or Negligence	145	5·6	151	5·7
Homicide	3	·1	1	...
Suicide	26	1·0	23	·9
Total External Causes	174	6·7	175	6·6
Ill-defined—Not Specific Diseases—				
Old Age	40	1·6	46	1·7
Ill-defined Diseases	5	·2	1	...
Total Ill-defined Diseases	45	1·8	47	1·7
Total Deaths, All Causes	2363	91·7	2528	95·5

DEATHS from Tuberculosis during the last Ten Years.

	Number.										Death Rate per 100,000 Persons living.									
	1939.	1940.	1941.	1942.	1943.	1944.	1945.	1946.	1947.	1948.	1939.	1940.	1941.	1942.	1943.	1944.	1945.	1946.	1947.	1948.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Tuberculosis of Respiratory System (No. 13)	102	85	96	108	93	81	93	97	87	74	43	36	40	45	38	33	38	39	34	28
Other forms of Tuberculosis (Nos. 14-22)	24	18	14	21	20	24	23	21	20	12	10	8	6	9	8	10	9	8	8	5
Totals	126	103	110	129	113	105	116	118	107	86	53	44	46	54	46	43	47	47	42	33

RETURN showing the Number of Deaths from Typhoid during the last Ten Years under Age Groups.

Year	Under 5.		5-10.		10-15.		15-20.		20-25.		25-30.		30-35.		35-40.		40-45.		45-50.		50-55		55-60.		60-65.		65 and over.		Total all Ages.		
	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Persons
1939...	...	...	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1
40...	...	...	...	...	...	...	...	..	...	...	...	...	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
41...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
42 .	...	...	...	...	...	...	1	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	1	...	1
43...	...	...	..	..	...	...	...	..	...	...	...	...	..	...	...	...	...	...	...	...	...	...	1	..	...	...	...	...	1	...	1
44...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	2	2
45...	...	...	...	...	...	...		...	...	...	...	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
46...	..	...	..	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
47...	...	...	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48...	...	..	...	...	.	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	1	...	...	...	...	1	5	2	7

Typhoid Fever.

Year, 1948.

Number of cases notified ... ...

Number of deaths, year 1948 (calendar)—

Males ... ...

Females ... ...

Scarlet Fever.

Year.	Cases.	Deaths	Death rate per 10,000 population.	Cases per 1000 persons living.	Deaths per 1000 Cases notified.	Death % of Cases.
1925	288	3	·1	1·34	10·4	1·0
1926	188	1	·05	·88	5·3	0·5
1927	91	2	·1	·43	22·0	2·2
1928	190	1	·05	·88	5·3	0·5
1929	314	2	·1	1·44	6·4	0·6
1930	485	8	·4	2·20	16·5	1·6
1931	265	...	...	1·18	...	...
1932	417	5	·2	1·84	12·0	1·2
1933	370	4	·2	1·61	10·9	1·1
1934	362	4	·2	1·58	11·0	1·1
1935	302	1	·05	1·32	3·3	0·3
1936	478	6	·3	2·07	12·6	1·3
1937	412	2	·1	1·76	4·9	0·5
1938	123	...	...	·52	...	...
1939	162	...	...	·68	...	...
1940	240	1	·04	1·00	4·2	0·4
1941	127	1	·04	·53	7·9	0·8
1942	72	...	...	·30	...	...
1943	92	1	·1	·38	10·9	1·1
1944	149	...	...	·61	...	...
1945	260	...	...	1·04	...	...
1946	231	...	...	·92	...	...
1947	118	2	·1	·46	17·0	1·7
1948	67	...	...	·25	...	...

Diphtheria.

Year, 1948.

Number of cases notified 60

Number of deaths, year 1948 (calendar)—

Males 1

Females .....

Year.	Cases.	Deaths.	Death rate per 10,000 population.	Cases per 1000 persons living.	Deaths per 1000 cases notified.	Death % of Cases.
1925	473	13	·6	2·19	27·5	2·7
1926	347	6	·3	1·62	17·1	1·7
1927	507	10	·5	2·38	19·7	2·0
1928	908	18	·8	4·21	19·8	2·0
1929	488	18	·8	2·24	36·9	3·7
1930	573	20	·9	2·59	34·9	3·5
1931	589	19	·8	2·62	32·3	3·2
1932	455	17	.8	1·96	37·4	3·7
1933	706	16	·7	3·14	22·3	2·2
1934	491	22	·9	2·14	44·8	4·5
1935	537	24	1·0	2·34	44·7	4·5
1936	575	20	·9	2·49	34·8	3·5
1937	305	12	·5	1·30	39·3	3·9
1938	343	10	·4	1·46	29·2	2·9
1939	365	14	·6	1·53	38·4	3·8
1940	366	18	·8	1·53	49·2	4·9
1941	401	25	1·0	1·67	62·3	6·2
1942	291	11	·5	1·21	37·8	3·8
1943	370	15	·6	1·53	40·5	4·1
1944	442	10	·4	1·80	22·6	2·3
1945	403	9	·4	1·62	22·3	2·2
1946	256	6	·2	1·02	23·4	2·3
1947	64	...	...	0·25	...	...
1948	60	1	...	0·23	16·7	1·7

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Scarlet Fever.

Year.						
1905	288	0	·7	1·34	10·4	1·0
1906	156	1	·00	·84	6·8	0·7
1907	91	0	·1	·45	09·0	1·0
1908	130	1	·08	·68	5·8	0·5
1909	314	0	·1	1·44	6·4	0·6
1910	145	0	·1	3·30	16·0	1·0
1911	265	...	...	1·18	...	...
1912	417	0	·2	1·84	12·0	1·0
1913	370	1	·2	1·61	10·4	1·1
1914	267	1	·2	1·20	11·0	1·1
1915	201	1	·00	1·22	8·2	0·8
1916	478	0	·2	2·07	12·4	1·0
1917	413	0	·1	1·76	4·0	0·4
1918	238	...	...	·96	...	...
1919	161	...	...	·69	...	...
1920	240	1	·04	1·00	1·4	0·4
1921	157	1	·04	·69	7·0	0·4
1922	72	...	...	·30	...	...
1923	251	1	1	·99	10·8	1·1
1924	159	...	...	·61	...	...
1925	230	...	...	1·00	...	...
1926	201	...	...	·84	...	...
1927	118	0	·1	·50	12·4	1·2
1928	92	...	...	·38	...	...

Deaths.

Year, 1928

Number of cases notified ...

Number of deaths, year 1928 (calendar)—

Males

Females

Year.						
1905	413	12	·3	1·13	32·0	2·7
1906	362	6	·3	1·03	31·1	3·1
1907	301	10	·3	1·26	30·1	3·0
1908	369	12	·4	1·21	29·4	2·9
1909	450	16	·4	1·33	36·9	2·3
1910	674	15	·4	2·93	34·9	2·3
1911	384	11	·3	1·63	30·6	2·7
1912	413	12	·4	1·66	31·4	2·6
1913	700	16	·5	2·74	32·8	2·0
1914	401	27	·7	2·14	31·3	1·9
1915	522	21	1·0	2·34	41·7	1·9
1916	479	20	·7	2·40	34·4	2·1
1917	406	12	·3	1·80	29·4	2·4
1918	312	10	·4	1·44	29·2	2·9
1919	382	14	·6	1·63	29·4	2·0
1920	369	13	·4	1·52	27·2	2·1
1921	381	25	1·0	1·60	40·2	2·6
1922	284	11	·4	1·21	31·0	2·8
1923	358	18	·6	1·40	40·1	2·2
1924	142	10	·4	1·00	25·2	2·5
1925	205	9	·3	1·02	24·8	2·7
1926	178	8	·3	1·00	24·4	3·0
1927	104	3	·1	·39	18·2	3·0
1928	81	1	...	0·33	10·3	1·0