

1943

NEW ZEALAND

DEPARTMENT OF HEALTH

ANNUAL REPORT OF THE DIRECTOR-GENERAL OF HEALTH

HON. A. H. NORDMEYER, MINISTER OF HEALTH

REPORT

THE DIRECTOR-GENERAL OF HEALTH TO THE HON. THE MINISTER OF HEALTH, WELLINGTON.

I HAVE the honour to lay before you the annual report of the Department for the year 1942-43.

INTRODUCTION

The outstanding features of 1942 were a widespread outbreak of cerebro-spinal fever, a marked rise in the death-rate, and a record low level of maternal and infant mortality.

VITAL STATISTICS

(Exclusive of Maoris)

Population.—The mean population of the Dominion was estimated to be 1,545,112 in 1942, an increase of 6,492 over the corresponding figure for 1941.

Birth-rate.—The total births in 1942 were 33,574, representing a rate of 21·73 per 1,000 mean population. This is the second highest birth-rate recorded since 1923 and was beaten only by the rate of 22·81 in 1941.

Death-rate.—The death-rate in 1942 was 10·60 per 1,000 mean population, as compared with a rate of 9·84 in the preceding year. This rate, which was the highest experienced in New Zealand since the influenza pandemic year of 1918, was not altogether unexpected by reason of our ageing population. The Government Statistician had this to say in the "New Zealand Official Year-Book, 1942," on the influence of the age-constitution of the population on the death-rate :—

"The increase in the crude death-rate since 1933 is an indication that the age-constitution of the population has passed the optimum distribution from the viewpoint of maintaining a very low level of death-rates. This trend must continue for some years to come, since the present death-rate of 9·24 (1940) per 1,000 is still much lower than could be regarded as possible in a population stable in respect of age-constitution, and it is reasonable to expect further increases in death-rates."

Infant Mortality.—The infant-mortality rate was 28·71 per 1,000 live births, and, as already stated, is a new low record. In 1941 the rate was 29·77.

Still-births.—The still-birth rate was 26·54 per 1,000 live births, as compared with 27·66 in 1941. The rate for 1942 is the lowest on record.

Maternal Mortality.—The maternal-mortality rate, including deaths from septic abortion, was 2·53 per 1,000 live births, as compared with 3·36 in 1941. When deaths from septic abortion are deducted, the maternal-mortality rate was 1·73 (2·68 in 1941).

INFECTIOUS AND OTHER DISEASES

(Exclusive of Maori, unless otherwise stated)

Four thousand three hundred and seventy-two cases of notifiable diseases were reported in all in 1942, as compared with 3,623 in 1941. The outbreak of cerebro-spinal fever, already mentioned, accounted for 852 of these cases.

Scarlet Fever.—Four hundred and fifty-seven cases of scarlet fever were reported with one death. The corresponding figures for the previous year were 338 cases and 1 death.

Diphtheria.—Diphtheria showed an increase, 542 cases being notified in 1942, as compared with 383 in 1941. There were 24 deaths giving a death-rate of 0·16 per 10,000 of mean population. In 1941 the corresponding figures were 17 deaths and a death-rate of 0·11.

Diphtheria took a heavy toll of young life in the period 1872-1892. With a population of 273,000 in 1872, increasing to 642,000 in 1892, there was only one year (1878) when deaths dropped below 100, and on five occasions they rose above 200, the highest figures being 270 in 1874 and 281 in 1892. From 1892 there was a decrease in the incidence or in the severity of the disease until 1904, when only 40 deaths were recorded. (The introduction of anti-diphtheritic serum in March, 1895, no doubt had a marked influence on the death-rate.) Deaths then gradually increased until 1915, when a rapid increase occurred, culminating in 240 deaths in 1917 and 195 in 1918. Since then deaths have declined, until during the past ten years there have been less than 50 per annum, and during the three years ended 1941 less than 20 per annum.

As the population has been increasing during this period, the numbers of deaths do not give a true indication of the reduction in incidence which has occurred. In 1874 there were 8·47 deaths from diphtheria per 10,000 of mean population; in 1892, 4·38; in 1917, 2·18; and in 1941, 0·11 per 10,000 of population.

Notifications for calendar years are available since 1910. In that year 838 were received. In 1914 notifications increased to 1,094, and then rapidly increased each year, culminating in the epidemic

of 1917-1918 (1917, 5,458 ; 1918, 5,539). In 1932 notifications for the first time since 1913 dropped to under 1,000 and have since remained below that figure, dropping to 367 in 1940, 383 in 1941, and 542 in 1942.

It is interesting to note that since 1922 the percentage of the total cases in the Dominion occurring in the South Island has been lower than the percentage of total population of the Dominion living in that Island. Since 1933 the difference has been marked ; on only one occasion (1939) has the percentage of cases occurring in the South Island been 10 per cent., and in 1938 it was as low as 4 per cent. During this period the percentage of the total population living in the South Island has been approximately 37 per cent. That this difference in incidence is not associated with differing age-constitutions of the populations of the two islands is indicated by the fact that the percentage of the total population under fifteen years of age living in the South Island was, at the census of 1936, also 37 per cent.

The Department is continuing steadily with its campaign of immunization. This method of protection has stood the test of time, and there is now world-wide agreement as to its efficacy and safety. In the East Coast Health District and in other parts of the Dominion immunization has been carried out with encouraging results. During the year, 14,917 children attended for voluntary immunization by the School Medical Service, and of these, 12,968 finished the complete course. However, until at least three-quarters of the child population under six years of age have been immunized no substantial improvement in the incidence and death-rate can be expected throughout the Dominion. The present tendency towards increase in the number of notifications emphasizes the need for the fullest co-operation by the general public with the Department in its efforts to stamp out this preventable disease with its deadly effect on young life.

Influenza.—Influenza was widespread in 1942 among both the armed forces and the civilian population. It was of the so-called "seasonal" type, which is apt to become epidemic during the winter months.

Lethargic Encephalitis.—Five cases of this disease were notified in 1942.

Poliomyelitis.—Thirty cases were notified, in comparison with 4 in 1941.

Cerebro-spinal Fever.—This disease has been notifiable in New Zealand since 1907, but first came into prominence during the 1914-18 war. In the period 1915-1919, 517 cases were notified. Thereafter the incidence of the disease gradually declined until in 1935 only 12 (10 European, 2 Maori) cases were notified. Since then the yearly European and Maori notifications have been :—

Year.	European.	Maori.	Year.	European.	Maori.
1936	12	4	1940	19	1
1937	13	5	1941	163	47
1938	24	2	1942	852	80
1939	22	3			

The epidemic of 1942 was the greatest New Zealand has had. The total number of cases was 932 (European 852, Maori 80), while the deaths were 117 (European 111, Maori 6), giving case-mortality rates of 13 per cent. and 7.5 per cent. respectively, or a rate of 12.6 without distinction of race.

A comparison may be made with the epidemic in England and Wales in 1940 and 1941 :—

England and Wales

In 1940 there were 12,771 notifications, with 2,584 deaths.

Incidence : 0.31 per 1,000 mean population.

Case-fatality rate, 20 per cent.

In 1941 there were 11,077 notifications, with 2,163 deaths.

Incidence : 0.27 per 1,000 mean population.

Case-fatality rate 19.5.

New Zealand

In 1942 there were 932 notifications, with 117 deaths.

Incidence : 0.57 per 1,000 of mean population.

Case-fatality rate, 12.6 per cent.

The introduction of sulphapyradine and allied drugs has robbed this disease of much of its former terror.

Whooping-cough and Measles.—There were 4 deaths from whooping-cough and 31 from measles.

Puerperal Sepsis.—Sepsis following childbirth was responsible for 15 deaths. Sepsis following abortion, on the other hand, caused 27 deaths.

Tuberculosis.—Deaths from tuberculosis (all forms) were 607, as compared with 597 in 1941. The death-rate per 10,000 mean population for respiratory, non-respiratory, and all forms of tuberculosis is set out in the following table :—

Year.	Respiratory Tuberculosis.	Non-respiratory Tuberculosis.	Tuberculosis (all Forms).
1940	3.24	0.64	3.88
1941	3.19	0.69	3.88
1942	3.18	0.75	3.93

A more active campaign against tuberculosis is foreshadowed by the setting-up of a special Division dealing with this disease and by the appointment of Dr. C. A. Taylor as the Director of the Division.

In the development of a more active campaign against tuberculosis matters which require consideration are as follows :—

(1) *Housing and Economic Conditions* : It is recognized that unsatisfactory housing and economic conditions are powerful factors in the cause and spread of tuberculosis. The housing of Maori tuberculous cases is partly provided for by the hutment scheme as mentioned in previous reports, but under present conditions there is difficulty in supplying sufficient hutments to meet requirements.

(2) *Late Diagnosis* : Far too many cases are still brought for treatment in an advanced state. As a part of its programme of case-finding the Department has encouraged Hospital Boards to establish miniature radiographic machines. Ten of these units are now operating in the North Island and three in the South. The shortage of efficiently-trained radiographers has delayed the complete operation of these units, but it is hoped shortly to initiate steps for the training of a sufficient number of radiographers.

The generous provision by the Taranaki Maoris of a mobile X-ray unit is worthy of emulation in other districts. The radiological investigation into the incidence of pulmonary tuberculosis among some two thousand office and factory workers and secondary-school children in Wellington as carried out by Dr. Marie Buchler for the Medical Research Council emphasizes the value of such surveys.

(3) *The Clinic*: Hospital Boards which have not established tuberculosis clinics at their principal institutions are being urged to do so without delay. The Travelling Clinics under the supervision of Drs. Short, Francis, McIntyre, and Kidd continue their excellent work. The development of small surgical units at sanatoria is being considered.

(4) *The Sanatorium*: Sanatoria remain an integral part of the system for treating tuberculous cases. They are places where patients of good prognosis may obtain adequate treatment and be taught how to look after themselves in future life. The northern half of the North Island is entirely lacking in this type of institution, while patients from the East Coast, Wellington, and Southland areas are handicapped by delays in finding accommodation.

(5) *After Care*: In the past tuberculous patients discharged from sanatoria or hospital have largely been left to fend for themselves. There is a need in New Zealand for some organization, preferably of a voluntary nature, which could help these patients when they are considered fit to take up some form of work. Sympathetic consideration and understanding on the part of the employers and the public generally are necessary to make patients feel that they can safely take up their proper place in society. Towards this end Dr. Taylor is working for the formation of a National Association of lay people helped by interested medical men. The National Associations for the Prevention of Tuberculosis, London and New York, are carrying out magnificent work in the rehabilitation of such cases.

(6) *District Nursing Services*: In view of the fact that approximately four-fifths of the known tuberculous patients are living in their own homes it is necessary that increased district nursing services be provided to control these patients adequately. Efforts are being made to meet this demand.

Veneral Diseases.—The following returns covering the figures supplied by the Venereal Disease Clinics in the four main centres indicate, although incompletely, the trend of the respective diseases in New Zealand:—

Number of Persons dealt with for the First Time at the Venereal Disease Clinics and found to be suffering from Syphilis.

	Auckland.		Wellington.		Christchurch.		Dunedin.		Total.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1938	54	34	15	15	18	10	10	..	97	59	156
1939	59	43	18	25	19	11	12	5	108	84	192
1940	63	37	77	58	12	8	22	8	174	111	285
1941	102	57	96	63	29	17	33	6	260	143	403
1942	70	78	53	71	18	11	20	6	161	166	327

Number of Persons seen for the First Time at each Venereal Disease Clinic and found to be suffering from Gonorrhœa.

	Auckland.		Wellington.		Christchurch.		Dunedin.		Total.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1938	520	168	329	61	336	99	118	71	1,303	399	1,702
1939	399	141	333	53	328	88	91	90	1,151	372	1,523
1940	474	118	310	53	286	79	78	89	1,148	339	1,487
1941	410	183	373	42	271	72	81	79	1,135	376	1,511
1942	312	286	236	63	181	69	75	73	804	491	1,295

An increase in the number of venereal cases under present-day conditions would not be unexpected. However, information received from Army and Navy sources reveals a decided improvement in the position during the past twelve months. The improvement may be attributed to press publicity and the Department's activities in bringing infected women under control. The Department has a working arrangement with the various branches of the armed forces, including the United States Forces, whereby the probable source of infection of all cases treated by the Medical Officers at camps, &c., is reported to the Department, and under the machinery now in existence rigorous following up is immediately instituted by the Medical Officer of Health, and thus potential sources of infection are brought under early control. It is apparent that there is a definite improvement in control, and the recent legislative provisions have enabled a realistic approach to be made to the problem. Certain minor amendments to the Venereal Disease Regulations 1941 are contemplated, particularly to deal with those who infect others while under treatment.

Cancer.—It is recognized that the increasing age-constitution of the population and improved diagnosis are responsible in some measure for the higher death-rates of cancer in recent years. There is evidence that an increasing number of patients with early forms of cancer are being effectively treated at the cancer clinics organized in the main centres by the New Zealand Branch of the British Empire Cancer Campaign Society. The Travis Radio-Physics Institute at the Canterbury University, which is controlled by the Society, proposes to extend its activities to the supervision and control of radium and the numerous X-ray machines in New Zealand used for diagnostic purposes. Hitherto its work has been restricted to the supervision of X-ray machines used for deep therapy.

A conference of representatives of the New Zealand Branch of the British Empire Cancer Campaign Society, the Government Statistician's Department, the Medical Research Council, and the Department was held with a view to the improvement of statistical information in regard to cancer.

PRINCIPAL CAUSES OF DEATH

The following table gives the main causes of death, the actual number of deaths therefrom during the year, and the death-rates per 10,000 of mean population for each of the last five years:—

Cause.	1942.		1941 : Rate.	1940 : Rate.	1939 : Rate.	1938 : Rate.
	Number.	Rate.				
Heart-disease (all forms)	5,625	36·41	31·55	29·52	27·80	27·45
Cancer	2,020	13·07	13·18	12·02	11·79	11·76
Violence	891	5·77	5·64	5·68	5·72	6·57
Pneumonia	235	1·52	1·47	1·60	2·02	4·03
Pneumonia (secondary to influenza), whooping-cough, and measles	125	0·81	0·38	0·28	0·58	1·23
Bronchitis	210	1·36	0·94	1·12	1·36	1·32
Broncho-pneumonia	326	2·11	1·96	1·79	2·00	2·33
Tuberculosis (all forms)	607	3·93	3·88	3·88	3·98	3·93
Kidney or Bright's disease	493	3·19	3·66	3·18	3·47	3·82
Apoplexy or cerebral hæmorrhage	1,530	9·90	8·95	8·45*	5·77	5·61
Diseases of the arteries	188	1·22	1·14	0·98*	3·46	3·62
Senility	468	3·03	3·13	2·63	2·16	2·64
Diabetes	352	2·28	2·21	1·98	2·23	1·88
Hernia and intestinal obstruction	114	0·74	0·73	0·78	0·70	0·72
Diseases and accidents of childbirth (puerperal mortality)	85	0·55	0·77	0·62	0·68	0·72
Appendicitis	68	0·44	0·55	0·58	0·69	0·77
Diarrhœa and enteritis	78	0·50	0·53	0·50	0·45	0·64
Epilepsy	82	0·53	0·43	0·34	0·26	0·32
Common Infectious Diseases—						
Influenza (all forms, including pneumonia)	248	1·61	0·49	0·77	1·10	0·88
Diphtheria	24	0·16	0·11	0·10	0·16	0·20
Whooping-cough	4	0·03	0·44	0·15	0·01	0·14
Scarlet fever	1	0·01	0·01	0·01	0·01	0·01
Typhoid and paratyphoid	8	0·05	0·05	0·04	0·02	0·05
Measles	31	0·20	0·03	0·01	0·05	1·07

* Owing to an alteration in the international agreement as to the allocation of deaths to various causes, the figures for these two conditions are not separately comparable with those of earlier years.

REPORTS OF DIVISIONAL DIRECTORS

Public Hygiene.—Increased duties falling on Medical Officers of Health due to administration of benefits under social security legislation have resulted in less time being available for preventive work. However, the Department has endeavoured as far as possible to maintain essential health services. Considerable attention has been given to maintaining adequate quarantine control against the introduction of disease from overseas. A temporary arrangement has been made with the various Services to overcome difficulties and ensure as far as possible our safety, especially as regards the introduction of mosquitoes and rats. The necessity for increased vigilance in eliminating mosquito-breeding grounds and in destroying rats has also been impressed on local authorities.

The existence in this country of a large unvaccinated population is a matter for serious concern. "It is a fact worth noting," states a United States Public Health Service Bulletin, "that where laws requiring vaccination for school attendance have been in force for a number of years smallpox has practically disappeared, while nearly all of the cases reported in recent years have occurred in sections where there are no such laws."

It is hoped that the public will avail themselves more generally of the protection against smallpox which is afforded by vaccination.

Hospitals.—At an early stage of the present war it was decided as a matter of policy that provision for treatment of Service patients should be undertaken by utilizing with necessary extensions the hospital facilities provided by Hospital Boards and the Department. Financial assistance was provided from the War Expenses Account to Hospital Boards of the four main centres in order to extend the accommodation and treatment facilities there. Similarly, extensions were made at Pukeora Sanatorium, Waipukurau, and at Cashmere Sanatorium, Christchurch. A Services Convalescent Hospital of 160 beds was erected at Rotorua, this institution being administered by the Department, and additional provision was made at Queen Mary Hospital, Hanmer.

In order primarily to ensure the prompt clearance of hospital ships on arrival, a clearing hospital accommodating 300 patients was erected at Wellington on land adjoining the wharves. A special railway siding alongside the hospital was provided for hospital trains. The provision of a clearing hospital also greatly facilitated the work of the War Pensions and other Departments concerned with various aspects of the serviceman's welfare.

With large-scale mobilization within the Dominion extensive special provision had to be made for hospital care of camp sick. Hospital Boards in certain districts were therefore called upon to establish temporary hospitals by the acquisition and conversion of racecourse buildings, schools, church halls, and other premises. Steps have since been taken to provide special additions to existing general hospitals in order to release school premises and to provide more satisfactory accommodation for service patients generally.

School Hygiene.—The standard of health of the school child has on the whole been satisfactory. There was no apparent falling off in nutrition or increase of diseases—e.g., skin-diseases; dental caries; nose, ear, and throat troubles—which might be attributable to food shortages or lessened care in the home due to mothers being employed in industry.

Pre-school Child: There was an encouraging increase in the number of departmental clinics established for medical supervision of this group. Eighty have now been established at Plunket rooms and kindergartens, and 5,628 children were seen, in comparison with 1,527 for previous year. The health of these children gives some concern. Medical examinations have revealed minor structural deformities of bones and joints, and malnutrition is too high. Dietary errors are very obvious in the home control of these children.

Nursing.—The activities of the Nursing Division during 1942 were very much influenced by the state of emergency owing to the entry of Japan into the war. The post-graduate course was suspended with the dual object of leaving nurses at their normal posts and of enabling the Department to use the two Nurse Instructors for organizing work. Miss Bridges helped with inspection of hospitals and the arranging for additional nursing staffs for emergency hospitals. Miss Cameron assisted with the organization of the system for the control of cases and contacts under the Social Hygiene Regulations.

The Emergency Nursing Service created early in the war proved of use, particularly in those districts where there were large troop concentrations and winter epidemics of influenza and minor infectious diseases. This service consisted of registered nurses and Voluntary Aids of the New Zealand Red Cross Society and the Order of St. John. Authority has been given for setting up a Civilian Nursing Reserve, and the reserve is now in process of organization. Reservists will be employed by the Department and will be posted to Hospital Boards which require assistance, the Hospital Boards reimbursing the Department at the scale of salary laid down.

During the year the first examination for the recently introduced State course for hospital dietitians was held. This examination will be conducted annually in future. The course is of one year's duration for graduates of the Home-science School and two years for approved registered nurses.

Maternal Welfare.—There has been a steady advance in maternal welfare since 1927, when public attention was first drawn to New Zealand's unenviable position as regards maternal mortality. Deaths from childbirth and other puerperal causes have been substantially reduced. Strict control of midwifery practice, increased and better accommodation for maternity cases, and a high standard of education in obstetrics for medical students have been important factors in this connection. Hospital Boards have been impressed with the need for providing additional accommodation for maternity cases and for training maternity nurses.

Dental Hygiene.—The expansion of the School Dental Service has continued steadily during the year, although not so rapidly as it would have done in normal times. It is worthy of record that with the extension of treatment to Standard VI this year the final phase in the development of the Service has now been commenced. The School Dental Service now operates in 387 centres, as compared with 376 at the end of the previous year. The staff has increased to 551 (including 137 student dental nurses in training). The number of children under regular treatment is 146,496, an increase of 19,790 during the year. Additional schools to the number of 99 have been brought within the scope of the Service, making the total number of schools now receiving dental treatment 2,120. There has been a very satisfactory increase in the number of pre-school-age children enrolled for regular dental treatment. The number now stands at 12,993. The ratio of extractions to fillings shows a further reduction, and is now 9.4 per 100 fillings. The total number of extractions for the year was 84,031 and of fillings (including both permanent and deciduous teeth) 895,474. The latter included 191,904 prophylactic fillings.

Close attention has been given to dental health education during the year. New film strips have been prepared, and material for exhibition purposes is being steadily accumulated and is being made good use of by the staff.

Further attention has been given to the disquieting shortage in the number of students undertaking the dental course at the Otago University, and the introduction of Government bursaries during the year under review gives promise of providing some measure of relief in this direction. Twenty-five bursaries were awarded early in 1943, and the number of students commencing dental study now shows a satisfactory increase.

Matters connected with the administration of dental legislation have demanded attention throughout the year, including routine administration of the affairs of the Dental Council of New Zealand. Special activities due to the war have included such matters as the orderly recruitment of dentists and dental mechanics for service with the armed forces; creating and maintaining the administrative machinery for the examination and treatment of returned personnel of the forces; arranging necessary dental treatment for inmates of defaulters' detention camps, &c.; and attention to these matters has continued throughout the year.

Maori Hygiene.—The mean Maori population was estimated to be 94,473, as against 92,328 in 1941. The following table shows a comparison between Maori and European vital statistics:—

	Maori.	European.
Birth-rate per 1,000 of population	45.65	21.73
Crude death-rate per 1,000 of population	18.33	10.60
Infant-mortality rate per 1,000 live births	97.61	28.71
Maternal-mortality rate per 1,000 live births	4.64	2.53

The Maori maternal-mortality rate is now within measurable distance of what the European rate used to be, but in two other respects the Maoris lag a long way behind the Europeans. The extremely high incidence of tuberculosis amongst the Maoris constitutes a major public-health problem. The death-rate from this disease was 42.24 per 10,000 in 1942, which is more than ten times as high as amongst the Europeans. The Maori infant-mortality rate again compares most unfavourably with the European rate, and shows the need for a more intensive programme of infant-welfare work.

Social Security.—Medical, hospital, and allied benefits under Part III of the Social Security Act.

Massage Benefits: During the year under review benefits in respect of massage treatment afforded by masseurs in private practice were introduced (on 1st September) in accordance with the Social Security (Massage Benefits) Regulations 1942 (Serial number 1942/255).

The general arrangement for these benefits consists of individual contracts with registered masseurs under which they are paid from the Social Security Fund a fee of 3s. 6d. for each massage treatment and undertake not to charge the patient any additional fees in excess of 3s. 6d. for each treatment afforded in the masseur's rooms or 7s. for each treatment afforded elsewhere than in the masseur's rooms.

No massage treatment is recognized for the purpose of the benefits unless it is given on the recommendation of a medical practitioner, and no more than four weeks' treatment may be given on a single

recommendation. Any treatment recognized for the purpose of benefits must, moreover, be afforded not later than six weeks after the date on which it is recommended by the medical practitioner.

Some seventy-two masseurs have entered into contract to provide massage benefits. This number is believed to include almost every registered masseur who is engaged in private practice.

Refund of Portion of Fees paid for Specialist Medical Services: The "General Medical Services" scheme introduced on 1st November, 1941, and referred to in last year's report, excluded from the scope of benefits "medical services involving the application of special skill and experience of a degree or kind that general medical practitioners as a class cannot reasonably be expected to possess."

In order that a person who had paid a fee for a specialist medical service might obtain a refund at least of a portion of the fees, provision was made in the Finance Act (No. 2), 1942 (section 12), authorizing a refund not exceeding 7s. 6d. for every occasion on which such services have been provided. This provision is deemed to have come into force on 1st November, 1941, the date of commencement of general medical services. Claims for such refunds must be made in the same form as for refunds in respect of fees paid for general medical services. The provisions are not applicable to obstetric or X-ray services which are the subject of separate benefits.

Maternity Benefits: The following summary shows the number of claims dealt with during the year and the average cost to the Social Security Fund of each claim:—

	Number of Claims.	Average Cost.		
		£	s.	d.
Public hospitals	11,284	9	15	5
Private hospitals	19,432	10	13	8
St. Helens hospitals	1,746	5	3	8
Obstetric nurses	1,676	9	0	1
Medical practitioners	31,817	4	19	5

The licensees of 201 private maternity hospitals have entered into contracts to afford hospital services in relation to maternity benefits. Of this number, 31 accept the payment from the Social Security Fund in full satisfaction of their charges. The contracts with 139 licensees authorize them to make a charge directly to the patient over and above the amount payable from the Fund, whilst 31 licensees have contracted to provide some accommodation wholly at the cost of the Fund and have reserved the right to make an additional charge in respect of the balance of the accommodation provided. At the time of writing this report there are 279 obstetric nurses under contract to afford domiciliary nursing services. Only 5 doctors in the Dominion have signified their unwillingness to provide medical services in relation to maternity benefits.

Medical Benefits: The general arrangements for the provision of medical benefits were briefly outlined in my report for the year ended 31st March, 1941.

On 31st March, 1943, approximately 75,000 persons were entitled to receive medical benefits in accordance with mutual agreements with the doctor of their choice.

Special Arrangements under Section 82 of the Social Security Act: A number of friendly societies have continued to provide medical services for members and dependants of members under a "capitation" system—that is to say, a system by which the member pays a fixed contribution per annum for medical services to himself and his dependants. The member's medical contribution is paid to the doctor or doctors who have undertaken to provide medical services for the members of the society concerned.

In accordance with special arrangements made under section 82 of the Act by the Minister of Health, the medical contributions of lodge members who obtain medical services under a scheme of this nature are refunded from the Social Security Fund. As at 31st March, 1943, approximately 20,000 members and dependants of members of friendly societies were, in terms of these special arrangements, obtaining general medical practitioner services at the cost of the Social Security Fund.

The authority to make special arrangements has also been invoked in connection with the appointment of medical practitioners in several isolated localities in the Dominion. Briefly described, the nature of such special arrangements is that the doctor undertakes to provide free general medical practitioner services to the residents of a defined area, and in consideration of his so doing he receives from the Social Security Fund payment at a fixed rate per annum. As at 31st March, 1943, the number of doctors employed under special arrangements (exclusive of those under agreements with friendly societies) was 16.

General Medical Services: During the year 491,302 warrants of an average value of 14s. 8d. were issued to persons who, having paid fees directly to doctors, applied to the Department for refunds in respect of such fees.

It is estimated that the cost to the Social Security Fund of each general medical service (bearing in mind that a fee of 12s. 6d. is payable for "Sunday" or "night" calls) is slightly in excess of 7s. 7d., and that the number of general medical services which were paid for (either directly to the doctor or by way of refunds to patients) out of the Fund during the year amounted to approximately 2,200,000. It is estimated that during the year about half of the general medical services provided were the subject of direct claims on the Fund by the doctor concerned.

Hospital Benefits: The average daily number of in-patients receiving hospital benefits during the year was approximately 19,450, as follows:—

(a) Public hospitals	9,300
(b) Mental hospitals	7,950
(c) Karitane hospitals and other approved institutions	450
(d) Private hospitals	1,750
	19,450

Pharmaceutical Supplies Benefits: All but 5 of the 558 retail pharmacists have entered into contract to provide pharmaceutical requirements.

During the year some 3,500,000 medical prescriptions were the subject of claims on the Fund. The average cost per prescription is now approximately 3s. 3d.

X-ray Diagnostic Services: Although this class of benefit was commenced on 11th August, 1941, it was not until the end of February, 1942, that arrangements were concluded enabling X-ray diagnostic services afforded by radiologists in private practice to be provided at the cost of the Fund.

To date 17 medical practitioners have been granted "absolute" recognition as radiologists for the purpose of benefits, whilst 14 have been granted recognition in terms of which they are entitled to provide a limited X-ray diagnostic service at the cost of the Fund.

Cost of Benefits: The following is a statement of the expenditure on the several classes of benefits during the year under review:—

	£
Maternity benefits	505,224
Medical benefits (including general medical services)	1,016,052
Hospital benefits (including treatment in State Mental Hospital and approved institutions and out-patient treatment)	1,540,959
Pharmaceutical supplies benefits	563,247
Supplementary benefits (including radiological services and massage benefits)	97,424
	£3,722,906

GENERAL

Milk-in-schools Scheme.—The total number of pupils included in the Milk-in-schools Scheme in 1942 was 234,838, an increase of 1,094 over the previous year. A further sixty-three schools have also been brought within the scheme. In other words, pasteurized bottled milk, milk for cocoa-making purposes, or malted milk is now available to some 84 per cent. of the school population of the Dominion.

The totals are made up as follows:—

	Pupils.
Pasteurized bottled milk	221,893
Milk for cocoa-making	4,787
Malted milk	8,158
	234,838

Apples-in-schools Scheme.—Apples free of cost were supplied during the apple season to pupils attending all types of schools. The supply continued for a twelve-weeks period and involved the distribution of some 157,200 cases of apples over the period.

Health Camps.—The past year has been difficult for the health-camp movement on account of the institutions at Otaki, Gisborne, and Wanganui being taken over to provide accommodation for the armed forces or Hospital Boards. One substitute summer camp was held in the Wellington Province.

The permanent health camp at Roxburgh has functioned throughout the year, while summer camps were held in all provinces. The value of occupational therapy is being stressed, as it has been found children improve in health more readily if adequate time is devoted to practical work of a light and interesting nature. Physical education and games on new lines are receiving special attention.

A recent survey reveals the need for many children whose parents are engaged on war work undergoing a period of treatment in a health camp. Owing to the building restrictions the erection of additional camps already planned has been deferred until the war-building programme is complete.

The proceeds from the sale of health stamps and donations have reached the new high level of £8,735, which is £1,600 more than last year's record total.

Health Education.—Projectors and film-strip machines were supplied to district offices. Seventy-three new films were received from overseas. Several film strips were produced at the Miramar Film Studios, and prints of some of these have also been supplied to the Education Department for use in schools. Medical Officers of Health report favourably on the use of films, and a large number of screenings have been given for different age groups of people. Exhibits arranged by the Department have been well patronized by the public. The daily press and journals with a wide circulation have been regularly supplied with health articles. The weekly broadcasts from the YA stations were continued. The popular booklets "Good Nutrition" and "The Maori Mother and Her Child" were reprinted. Sets of posters have been supplied to all district offices. A number of reference books and new journals have been added to the Library.

Nutrition.—Dr. Muriel Bell has been actively engaged in attempting to maintain standards of nutrition. She has investigated and reported on dietaries of units of armed forces and general hospitals, and has dealt with problems arising out of shortage of certain foodstuffs. She has given numerous addresses to training-college students and other groups. She has arranged nutrition exhibits and contributed articles on dietetics to various publications.

Miss M. Frengley, B.H.Sc., was appointed as Dietitian to the Department. Miss Frengley will assist on the programme of health education and will be available for consultation in regard to dietaries of hospitals and other institutions.

Industrial Hygiene.—In view of the development of industry in the Dominion it has been decided to proceed with the appointment of an industrial hygienist. The duties of this officer when appointed will be (a) to act as adviser in industrial hygiene to the Labour Department and Medical Officers of Health; (b) to undertake surveys of industry; (c) to carry out whatever scientific investigations are necessary to determine the nature and extent of industrial hazards and measures for their prevention; (d) to undertake health education, including nutrition guidance among factory employees; (e) to supervise the health of workers in industry and to take such steps as are necessary for the institution of medical examination, including chest X-ray of entrants to industry; (f) generally to act as a liaison officer between the Labour Department and the Health Department in all matters affecting the health of the people in industry.

Medical Advertisements Act, 1943.—The Act which repealed the Quackery Prevention Act, 1908, came into force on the 1st January, 1943. Its object is to prevent the exploitation of the public by control of medical advertisements claiming to diagnose, treat, cure, prevent, or alleviate sundry complaints and ailments. Wide powers are given to the Board constituted under the Act. It may serve on the proprietor of any drug, cosmetic, dentifrice, article, substance, preparation, instrument, or apparatus to which any medical advertisement relates, or on any other person for whom or on whose behalf a medical advertisement has been published, a notice requiring the proprietor or any other person to prove to the satisfaction of the Board any claim or statement contained in the advertisement. Regulations under the Act have been gazetted.

Boards associated with the Department.—The Board of Health, Medical Council, Medical Research Council, Nurses and Midwives Registration Board, Opticians Board, Masseurs Registration Board, and the Plumbers Board continued their work during the year.

Medical Research Council.—A list of the special Committees set up under the Council, and some information regarding the researches carried out by the Committees, is set out below :—

(1) *Nutrition Committee* :—

- “ Determination of Vitamin B₁ Content of Various Foods ” (McLaughlin and Wilson).
- “ Dietary Survey among Maoris ” (McLaughlin and Wilson).
- “ Dietary Survey among Basic Wage Earners ” (McLaughlin). Published in the *New Zealand Medical Journal*, April, 1943.
- “ The Ascorbic Acid Content of Some New Zealand Products ” (Johns).
- “ Vitamin C in Camp Diets ” (Johns).
- “ Report on Further Vitamin B₁ Assays ” (Allen).

(2) *Committee for Study of the Physiology and Pathology of the Thyroid Gland* :—

- “ Thiourea Derivatives as Goitrogenic Agents ” (Kennedy).
- “ The Effect of *Allyl Thiourea* on Hypophysectomised Rats ” (Griesbach and Kennedy).
- “ The Combined Effect of Goitrogenic and Iodine Treatment on the Rat Pituitary ” (Griesbach).
- “ The Effect of Thiourea on *Galaxius Attenuatus* (N.Z. Whitebait) ” (Griesbach).
- “ The Assay of Thyrotropic Activity by the Cell Height Response in Guinea Pigs ” (Purves and Griesbach).
- “ A Method for the Measurement of the Heart Rate of Rats ” (Purves and Samuel).
- “ The Relation between Heart Rate and Metabolism in the Albino Rat ” (Purves).
- “ The Significance of the Basophil Changes in the Pituitary Produced by Thyroid Disturbances ” (Griesbach, Purves, and Kennedy).
- “ The Rate of Thyroxin Secretion by the Rat Thyroid ” (Purves).
- “ Thyroid Adenomata in Rats on Rape-seed Diet ” (Griesbach, Purves, and Kennedy).
- “ A Preliminary Report on Fatiguability of Rat’s Muscle following Thyroidectomy and Adrenalectomy ” (Malcolm and Whitehead).

(3) *Hydatid Committee* : Useful work has been done regarding the morphology and natural history of the hydatid parasite, but the efforts of Miss Batham, M.Sc., the research officer, have been concentrated chiefly on the prevention of hydatid disease in human beings and stock animals and the possibilities of eradication. Sir Louis Barnett has continued the hydatid register as a piece of statistical research for the Royal Australian College of Surgeons. The records accumulated now amount to nearly 1,650. A preliminary report was presented on an experiment in the Ranfurly district to obtain reliable data concerning the relationship of regular arecoline treatment of dogs to the reduction (or otherwise) in hydatid infection in sheep.

(4) *Committee of Research in Clinical Medicine* :—

- “ S-Methylisothiurea Sulphate for maintaining Blood Pressure in Spinal Anæsthesia ” (Smirk and McGeorge).
- “ Observations on the Properties of S-methylisothiurea Sulphate, with Particular Reference to the Circulatory Effects ” (McGeorge, Sherif, and Smirk).
- “ Control by Radium for Gastric Acidity ” (Jenkins and McGeorge).

(5) *Tuberculosis Committee* : The year’s work was continued in two directions, namely :—

- (i) Group testing for pulmonary tuberculosis :
- (ii) Bacteriological investigation of the infection.

Dr. Marie Buchler completed her report on “ A Radiological Investigation into the Incidence of Pulmonary Tuberculosis among 2,204 Office and Factory Workers and Secondary-school Children in Wellington.” As a result of this investigation nearly one hundred cases of unsuspected cases of pulmonary tuberculosis were discovered.

(6) *Obstetrical Research Committee* : The work of this Committee has been carried on in a modified form under difficulty owing to the loss of the research officer, Dr. F. O. Bennett, who is on service with the Army. Some further work has been done on the incidence of toxæmia in pregnancy.

STAFF

I regret to record the death of three members of the staff who lost their lives overseas while on active service with the armed forces—Messrs. J. Bennett, R. McMillan, and K. R. Taylor. I regret, also, to record the death of Dr. Percy Chisholm, who was Medical Superintendent, Queen Mary Hospital, Hanmer Springs, for the last twenty-three years. Dr. Chisholm was recognized as one of the foremost specialists in New Zealand in his particular sphere of medicine, and by his able administration and sympathetic understanding built up a high reputation for Queen Mary Hospital.

The following new appointments have been made to fill existing vacancies :—

Dr. C. W. Dixon to Whangarei ; Dr. T. C. Lonie to Gisborne.

Dr. J. W. Dawson and Dr. W. C. Davidson are on their way from England to take up appointments.

Dr. K. J. H. Davies has been transferred to Invercargill to take charge of the Southland Health District, which was formerly administered from Dunedin.

In conclusion, I wish to express my thanks for the support rendered by my officers during the year.

M. H. WATT,
Director-General of Health.

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