

1920.
NEW ZEALAND.

PUBLIC HEALTH

AND

HOSPITALS AND CHARITABLE AID.

REPORT THEREON BY THE CHIEF HEALTH OFFICER AND THE INSPECTOR-GENERAL
OF HOSPITALS AND CHARITABLE INSTITUTIONS.

Presented in pursuance of Section 76 of the Hospitals and Charitable Institutions Act, 1918.

The CHIEF HEALTH OFFICER and INSPECTOR-GENERAL OF HOSPITALS to the Hon. the MINISTER OF
PUBLIC HEALTH.

Department of Public Health, Hospitals, and Charitable Aid,
Wellington, 1st August, 1920.

SIR,—

I have the honour to present my annual report on the work of this Department for the
year ended 31st March, 1920.

PUBLIC HEALTH SECTION.

Population.

The population of New Zealand at the census of October, 1916, was 1,099,449. This total
does not include Maoris, whose number was separately determined as 49,776.

The estimated mean population (excluding Maoris) for 1919 is given by the Government
Statistician as 1,125,549.

Births.

The births registered in New Zealand during the year 1919 numbered 24,483, as against
25,860 in 1918, and a yearly average of 27,223 during the pre-war period 1910–14. The birth-
rate for 1919 was 21·54 per 1,000 of the total population.

The following table is of interest as showing the general course of the birth-rate during the
last twenty years :—

Year.	Total Number of Births registered.	Birth-rate per 1,000 of Population.	Year.	Total Number of Births registered.	Birth-rate per 1,000 of Population.
1900 ..	19,546	25·60	1910 ..	25,984	26·17
1901 ..	20,491	26·34	1911 ..	26,354	25·97
1902 ..	20,655	25·89	1912 ..	27,508	26·48
1903 ..	21,829	26·61	1913 ..	27,935	26·14
1904 ..	22,766	26·94	1914 ..	28,338	25·99
1905 ..	23,682	27·22	1915 ..	27,850	25·33
1906 ..	24,252	27·08	1916 ..	28,509	25·94
1907 ..	25,094	27·30	1917 ..	28,239	25·69
1908 ..	25,940	27·45	1918 ..	25,860	23·44
1909 ..	26,524	27·29	1919 ..	24,483	21·54

The table demonstrates the fact that during the period 1900–17 there was little variation
from year to year in the rate. In 1918, however, a noticeable decline occurred in the number
of births, followed in 1919 by a still further decline. Indeed, the birth-rate for the year under
review is the lowest which has been recorded since 1855, when compulsory registration of births
first came into force. This downward movement was not unexpected, and is attributable to
the adverse influences of the war and the epidemic. The absence of men of marriageable age
with the Expeditionary Forces caused the marriage-rates for 1917 and 1918 to fall to an unpre-
cedently low level, while the influenza of November, 1918, claimed the majority of its victims
from adults between the ages of twenty and forty-five.

Deaths.

The deaths recorded during 1919 numbered 10,808, as compared with 16,364 in 1918 and a yearly average of 9,730 in the period 1910–14. The Government Statistician gives the standardized death-rate for 1919 as 9·12 per 1,000 of the total population.

The following table shows the number of deaths and the death-rates for the decennium 1910–19. The low level of the rate for 1919 is most satisfactory.

Year.	Total Number of Deaths.	Crude (Actual) Death-rate.	Standardized Death-rate.
1910	9,639	9·71	9·63
1911	9,534	9·39	9·38
1912	9,214	8·87	8·87
1913	10,119	9·47	9·47
1914	10,148	9·31	9·31
1915	9,965	9·06	9·09
1916	10,596	9·64	9·22
1917	10,528	9·58	9·04
1918	16,364	14·84	14·66
1919	10,808	9·51	9·12

It is gratifying to record that the rate of infantile mortality for 1919 was 45·26, the lowest rate yet experienced in the Dominion. The next table shows the decline which has taken place during the last twenty years :—

Year.	Infantile-mortality Rate.	Year.	Infantile-mortality Rate.
1900	75·20	1910	67·73
1901	76·30	1911	56·31
1902	82·89	1912	51·22
1903	81·08	1913	59·17
1904	70·98	1914	51·38
1905	67·52	1915	50·05
1906	62·10	1916	50·70
1907	88·78	1917	48·16
1908	67·88	1918	48·41
1909	61·60	1919	45·26

It is generally acknowledged that the infantile-mortality rate serves as an index of the combined social and sanitary progress of a community. The downward tendency shown in the table is therefore a pleasing commentary upon the efforts of various organizations, notably the Royal New Zealand Society for the Health of Women and Children, and upon Public Health administration in general. In considering this matter, however, it must be remembered that New Zealand is particularly fortunate in having economic conditions under which poverty is rare, and which make, therefore, for the preservation of life at this tender age.

Infectious Diseases.

Infectious diseases generally have declined during the year, and with the exception of diphtheria and mild epidemic influenza there has been no extensive outbreak. Excluding influenza, the total number of cases of infectious disease notified in 1919 was 8,277, as compared with 9,303 in the preceding year. The following table is submitted as enabling a comparison to be made of the prevalence of the principal infectious diseases during the last five years.

PRINCIPAL INFECTIOUS DISEASES NOTIFIED DURING THE PAST FIVE YEARS.

Disease.	1915.	1916.	1917.	1918.	1919.
Scarlet fever	2,312	4,278	2,755	1,654	1,521
Diphtheria	1,420	2,376	5,458	5,539	3,499
Enteric fever	825	806	653	423	477
Tuberculosis	1,019	950	1,521	1,072	984
Cerebro-spinal meningitis	85	135	42	159	96
Poliomyelitis	10	1,018	54	6	11
Totals	5,671	9,563	10,483	8,853	6,588

An examination of these figures reveals certain points of interest.

Scarlet Fever was unduly prevalent in 1915, 1916, and 1917, attaining epidemic proportions in the middle year of this series. The figures for 1919, it is satisfactory to note, are lower than at any time in the quinquennium under review, and are only 15 in excess of the number recorded for 1914. The disease was responsible for 23 deaths in 1919, giving the very low case mortality of 1·5 per cent.

Diphtheria still remains too prevalent, although there is every indication that the long-drawn-out epidemic of recent years is now definitely on the wane. The table shows that the

notifications reached their maximum in 1918, there being a reduction of 2,040 cases for the twelve months succeeding. It is hoped that a further substantial reduction will be reported next year. The disease has been, fortunately, of a mild type. This is shown by the fact that the number of deaths attributable to this cause in 1919 was 157, representing a case mortality of 4·5 per cent. The very mildness of the disease, however, has contributed to the continuance of the epidemic, as many cases have doubtless gone unrecognized.

Enteric Fever no longer figures as a prominent cause of sickness and death in New Zealand, 477 cases and 34 deaths being recorded in 1919. During the year under review two localized epidemics occurred, one amongst the Maoris in the Waiapu Hospital District, the other in Wellington City. The latter presented some features of interest, and a brief statement by the District Health Officer, Wellington, is therefore incorporated in this report:—

“Wellington City has for many years been so free from enteric fever that the following particulars of a milk-borne epidemic of this disease are deemed worthy of recording:—

“The first case was notified on the 23rd April, while within the succeeding fortnight 20 additional cases were brought before the notice of the Health Department. The milk-supply of the households from which the first two cases were reported was the same, and, as no cases of enteric fever had occurred in Wellington for some months previously, suspicion was aroused that the infection had been milk-borne. Consequently an officer of the Department visited the farm concerned and made careful inquiry into the state of health of those handling the milk. It was found that of the three milkers at the farm two were new-comers, and could not for that reason be held accountable for the cases under investigation. All three were in perfect health. Information was obtained, however, that a former employee had been forced to give up work on the 1st April on account of an illness which had been present for about a fortnight, and of which the symptoms were highly suspicious of enteric fever. This individual was traced to an institution in Wellington, and was subjected to bacteriological examination, when it was clearly established that he was just convalescent from an attack of enteric fever, being still in a highly infective condition. He was promptly isolated and put on appropriate treatment. To ensure that no other focus of infection remained unrecognized the other employee at the farm, who had been in contact with this enteric patient, was examined bacteriologically, but with negative results.

“Between the 23rd April and the present date 34 cases have occurred definitely attributable to this milk-supply, 26 being primary and due to the ingestion of the contaminated milk, 8 being secondary and due to infection from other cases in the household. The 34 cases, of whom 24 were female and 10 male, were distributed amongst fifteen households in the following manner: Two households, 6 cases each; one household, 3 cases; seven households, 2 cases each; five households, 1 case each.

“The age-distribution of the cases was as under: Under 15 years, 11 cases; 16 to 20, 5 cases; 21 to 30, 10 cases; 31 to 40, 3 cases; 41 to 50, 2 cases; 51 to 60, 3 cases.

“Owing to the presence of influenza and the similarity between the earlier stages of enteric fever and this disease, several of the cases were in the first instance notified as influenza.

“Diagnosis was confirmed by the Widal method in 32 cases.

“In addition to the 34 cases detailed above, 3 other cases were notified during the same period in Wellington City. One was a returned soldier who had been travelling throughout New Zealand, and who probably acquired his infection outside of Wellington. The other two were individuals who were in the habit of having meals in any restaurant or hotel, and who may therefore have partaken of some of the infected milk.”

Tuberculosis.—The reduction in the figures for 1919 is a matter for congratulation, especially in view of the adverse conditions of influenza-prevalence and house-shortage with the resultant over-crowding. The notifications for 1919 are actually fewer than for 1912 or 1913.

Returns of notifications, however, are not a reliable source for forming conclusions as to the prevalence of tuberculosis, owing to the fact that many cases are not recognized in the early stages and others again are not reported until death occurs. The returns of deaths, as set out below, may be expected to show more accurately the course of the disease.

DEATHS FROM TUBERCULAR DISEASES.

Decennial Table, 1910 to 1919, showing for each Year the Rate per 10,000 living, and the Percentage of Total Deaths.

Year.	Mean Population.	Number of Deaths from Tuberculosis.	Rate per 10,000.	Percentage of Total Deaths from all Causes.
1910	992,802	731	7·36	7·58
1911	1,014,896	738	7·27	7·74
1912	1,039,016	716	6·89	7·77
1913	1,068,644	812	7·60	8·02
1914	1,090,328	728	6·67	7·17
1915	1,099,394	693	6·30	6·95
1916	1,099,449	742	6·74	7·00
1917	1,099,117	755	6·87	7·17
1918	1,103,022	832	7·54	7·64*
1919	1,136,389	762	6·71	7·05

* All deaths.

† Excluding deaths from influenza, October–December, 1918.

The above table shows that the death-rate from tuberculosis remains practically at the same level in 1919 as in 1914. The Department does not consider that the position, satisfactory though it be, warrants any slackening of effort, but has in mind closer measures of control. It is hoped

to develop the existing system of tuberculosis dispensaries and to devote more attention to the after-care of patients discharged from sanatoria.

Cerebro-spinal Meningitis and Poliomyelitis.—There have been relatively few cases of these diseases during the past year.

More exact information concerning the incidence of infectious disease in 1919 is furnished by the next two tables, showing the number of cases of each disease notified (A) in hospital districts and (B) by months :—

TABLE A.—SHOWING DISEASES NOTIFIED IN HOSPITAL DISTRICTS DURING THE YEAR 1919.

Hospital District.	Estimated Population (excluding Maoris).	Estimated Maori Population.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Tuberculosis.	Cerebro-spinal Meningitis.	Poliomyelitis.	Puerperal Septicæmia.	Hydatids.	Ophthalmia Neonatorum.	Septicæmia (undclassified).	Erysipelas.	Measles.	Lethargic Encephalitis.	Influenza.	Pneumonia.	Trachoma.	Anthrax.	Totals.
North Auckland Health District.																				
Bay of Islands ..	11,985	9,711	..	2	16	7	..	..	..	..	..	..	..	1	..	26	5	1	..	58
Kaipara ..	10,017	1,284	3	10	4	6	6	3	..	..	..	..	..	..	..	11	..	..	..	43
Whangarei ..	12,640	1,095	2	7	3	3	..	..	..	..	..	..	..	1	..	33	3	..	..	52
Auckland Health District.																				
Auckland ..	168,410	1,716	150	320	101	145	15	2	14	4	4	4	16	55	13	770	223	3	1	1,840
Waikato ..	56,749	8,139	31	128	38	28	6	1	1	1	2	..	3	9	4	517	58	..	..	827
Thames ..	14,548	1,365	5	68	8	9	..	..	1	..	..	..	1	1	..	32	1	..	..	126
Waihi ..	4,961	..	5	19	1	1	..	..	1	..	..	..	1	1	..	46	6	..	..	81
Coromandel ..	2,344	300	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Tauranga ..	5,852	1,716	3	5	13	2	..	..	..	..	..	..	..	..	1	58	2	..	..	84
Bay of Plenty ..	6,139	4,201	2	24	47	3	..	..	2	..	..	..	..	..	..	51	..	..	..	129
Taumarunui ..	9,014	1,081	..	3	3	3	..	..	..	..	..	..	..	..	..	14	1	..	..	24
Wellington Health District.																				
Waiapu ..	2,156	2,714	1	1	50	..	..	..	..	1	..	..	..	..	..	11	1	..	..	65
Cook ..	21,127	1,755	4	80	29	24	3	..	..	1	3	..	1	1	..	11	6	..	..	163
Wairoa ..	4,013	2,555	1	10	8	33	..	..	1	1	..	..	..	2	..	65	30	..	..	151
Hawke's Bay ..	33,344	1,203	17	146	6	28	5	1	6	2	..	..	..	12	1	160	11	2	..	397
Waipawa ..	20,043	727	19	56	3	19	2	..	1	4	..	..	1	..	..	63	6	..	..	174
Taranaki ..	24,778	1,752	14	71	8	18	4	..	1	..	..	..	..	10	2	131	14	..	..	273
Stratford ..	9,614	19	1	52	..	..	1	..	2	..	..	..	1	..	..	59	3	..	..	119
Hawera ..	16,328	832	6	115	4	6	1	..	1	..	..	..	41	6	..	164	19	..	..	363
Patea ..	4,956	276	2	11	6	3	..	..	..	..	..	..	1	..	..	9	19	..	..	51
Wanganui ..	42,626	2,352	14	143	12	29	1	..	4	2	..	..	43	3	..	230	32	..	..	513
Palmerston North ..	44,380	1,778	18	209	4	11	2	2	4	..	3	..	4	6	4	37	50	..	..	354
Wellington ..	107,049	468	58	311	61	91	11	..	8	..	4	..	9	20	12	312	54	..	..	951
Wairarapa ..	32,243	881	26	76	7	15	4	1	3	..	1	..	2	7	2	84	6	..	..	234
Wairau ..	11,777	86	2	44	..	..	..	1	1	..	..	..	32	..	..	10	..	..	..	90
Pictou ..	3,246	287	2	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Nelson ..	25,533	138	2	199	9	2	..	..	..	..	..	..	..	1	4	12	6	..	..	235
Canterbury Health District.																				
Westland ..	7,502	56	..	14	11	2	..	..	..	..	..	..	..	1	..	2	8	..	..	38
Buller ..	10,124	25	1	8	..	..	..	..	..	..	..	..	..	1	..	4	2	..	..	16
Inangahua ..	4,249	..	2	5	2	..	..	1	..	..	..	1	..	1	..	3	2	..	..	17
Grey ..	12,739	..	2	86	1	8	1	..	..	..	..	..	2	5	..	7	3	..	..	115
North Canterbury ..	134,475	740	241	345	15	251	12	..	12	8	6	4	16	160	12	523	212	1	..	1,818
Ashburton ..	16,404	17	44	16	2	12	2	..	3	4	..	1	1	6	3	52	9	..	..	155
South Canterbury ..	37,813	217	185	194	2	22	3	..	3	3	..	2	2	2	3	71	28	..	..	520
Otago Health District.																				
Waitaki ..	15,636	37	60	41	..	16	3	..	4	1	..	..	3	..	2	9	6	..	..	145
Otago ..	108,792	123	420	356	2	134	8	..	1	7	1	2	7	48	5	64	34	..	..	1,089
Vincent ..	5,307	..	36	128	..	8	1	..	..	..	..	..	1	3	2	10	6	..	..	195
Maniototo ..	2,884	..	18	..	..	3	..	..	..	..	..	..	..	..	..	1	..	..	..	22
Southland ..	53,169	47	104	183	1	37	5	..	6	3	..	..	5	10	3	35	11	..	..	403
Wallace and Fiord ..	10,583	93	20	10	..	3	..	..	1	..	..	..	..	1	..	3	2	..	..	40
Totals	1,125,549	49,776	1,521	3,499	477	984	96	11	79	45	24	14	73	477	90	3,700	879	7	1	11,977

TABLE B.—MONTHLY INCIDENCE OF INFECTIOUS DISEASES ACCORDING TO NOTIFICATIONS RECEIVED UNDER SECTION 25 OF THE PUBLIC HEALTH ACT DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Month.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Tuberculosis.	C.S. Meningitis.	Poliomyelitis.	Puerperal Septicæmia.	Hydatids.	Ophthalmia Neonatorum.	Septicæmia (undclassified).	Erysipelas.	Measles.	Lethargic Encephalitis.	Influenza.	Pneumonia.	Trachoma.	Anthrax.	Totals.
January ..	79	159	20	74	16	1	3	3	2	..	4	21	..	366	..	1	..	749
February ..	69	166	26	84	2	2	8	2	3	..	4	6	..	76	..	..	..	448
March ..	80	249	41	107	2	..	6	4	4	2	8	16	..	133	..	..	..	652
April ..	145	333	47	70	7	1	5	3	2	3	5	5	..	395	..	..	..	1,021
May ..	172	409	46	71	13	1	2	1	1	1	4	23	6	284	..	..	..	1,039
June ..	172	381	37	75	9	3	5	6	2	1	7	10	39	136	29	..	..	912
July ..	152	353	58	83	10	..	9	2	2	3	8	13	20	200	80	..	..	993
August ..	148	330	43	95	12	..	9	4	1	1	11	18	7	316	113	..	..	1,108
September ..	138	291	44	71	9	2	5	5	..	2	8	62	13	256	154	2	..	1,062
October ..	126	305	60	88	9	..	4	6	2	..	2	76	3	197	118	..	..	996
November ..	153	265	30	95	4	..	11	4	1	1	6	113	2	528	199	4	1	1,417
December ..	87	258	25	71	3	1	12	5	4	..	6	109	..	813	186	..	..	1,580
Totals	1,521	3,499	477	984	96	11	79	45	24	14	73	477	90	3,700	879	7	1	11,977

Influenza, it will be noted, was widely prevalent in 1919, a total of 3,700 cases being notified, with 346 deaths. As only a fraction of the cases were reported, it is apparent that the disease was of a comparatively mild nature.

Following upon the epidemic of 1918, vigorous administrative measures were adopted in an effort to prevent any further outbreak. All types of the disease, including simple influenza, were declared notifiable, and full precautions were taken, including strict isolation of the patient, quarantine of contacts for at least forty-eight hours, free issue of vaccine, &c. In May, 1919, pneumonic influenza, septicæmic influenza, and fulminant influenza were separately declared notifiable in order to ensure speedy information of any tendency on the part of the disease towards an increase of virulence. After extended trial it was found that notification of simple influenza was a measure of little value in the control of the disease, owing to the great number of mild cases who do not seek medical aid. At the time of writing the only forms of influenza which are notifiable and with regard to which administrative action is taken are the pneumonic, septicæmic, and fulminant varieties.

Acute Primary Pneumonia was made notifiable at the same time as pneumonic influenza. During the remaining seven months of the year 879 cases were notified. Owing to the lack of data no comparison is possible with previous years.

Lethargic Encephalitis.—Cases of this disease first came under notice about the beginning of May, 1919, and the disease was declared notifiable on the 20th of that month. A total of 90 cases was reported during the remainder of the year, with 29 deaths. As is not unusual with "new" diseases, these figures include a proportion of typical cases of more common maladies. A form of inquiry was prepared and copies forwarded for completion to all practitioners reporting cases. The information from this source as to the course and symptoms of the disease is not yet available.

Measles was not very prevalent in 1919, 477 cases and 3 deaths being recorded. The deaths from this cause in recent years were 33 in 1914, 64 in 1915, 93 in 1916, 17 in 1917, and 15 in 1918.

Venereal Diseases.—An important step was taken during the year in the inauguration of a scheme for the treatment of venereal diseases. New Zealand is relatively free from these diseases as compared with the older lands, but it must be admitted that of late years there has been a distinct tendency towards increase. Four full-time Medical Officers who had special experience in the Army in the treatment of venereal diseases have been appointed, one for each of the main centres. Their duties include the charge of a clinic in their home towns, together with the general supervision of the campaign against the diseases in the whole of the health district. As part of their routine work they visit the smaller towns to confer with Hospital Boards and arrange for the establishing of clinics in these places. While at present the majority of the cases are ex-members of the Expeditionary Forces, there is an ever-increasing proportion of civilians presenting themselves for treatment. To ensure early and adequate treatment the State pays the whole of the expenses in indigent cases.

NOTE.—Further information with regard to vital statistics may be obtained from the "Statistics of New Zealand, 1919," issued by the Government Statistician.

SALE OF FOOD AND DRUGS ACT, 1908.

Tables showing the Department's activities under the above Act are published monthly in the *Journal of Health and Hospitals*.

A comparison of 1919 with preceding years shows that there has been an expansion in this branch of Public Health administration, and that such expansion has resulted in an improvement in the general quality level of the samples.

The statistical compilation of food and drugs returns has been divided into three sections—(1) The weighing of foodstuffs; (2) the taking of samples for analysis; (3) legal proceedings.

Reviewing the work under the above headings it is found that, whereas the number of weighings of foodstuffs during the year 1918 was 5,769, for the year 1919 a total number of 5,303 samples was weighed, comprising 3,197 bread-samples, 1,579 butter-samples, and 527 samples of other foodstuffs. Of these, 380 samples of bread did not comply, as against 346 samples in 1918; in other words, the proportion of bread-samples not complying decreased from 13.1 per cent. to 11.9 per cent. As regards the butter-samples, 35 did not comply, this being 2.2 per cent. of the samples weighed, whereas last year the percentage was 3.9 and the number of samples that did not comply 68.

Of the samples taken for analysis it is interesting to note the improvement in the quality of the milk-samples taken. 2,135 samples were taken throughout the whole Dominion. Of this number, 1,538 were taken in the Wellington Hospital District. Only 152 of the total samples did not comply, whereas during the previous year, of 2,461 samples taken, 223 did not comply, the percentage of milk-samples not complying having decreased from 9.1 per cent. to 7 per cent. This may to a certain extent be accounted for by the fact that the quality of milk in the Wellington City area has largely improved during the past year on account of the distribution system introduced by the Wellington City Council.

Three hundred and fifty-four samples of miscellaneous foodstuffs were taken during the year, including samples of such nature as cordials, ice-creams, patent foods, &c. The number of these which did not comply, 115, is comparatively high, but it must be pointed out that such samples are generally taken only where there is reasonable cause to suspect that the sample may not comply. Under this heading last year 339 samples were taken and 88 did not comply, 33 prosecutions resulting. During the past year, of the 115 samples not complying, 31 prosecutions were recommended, the remaining cases being disposed of by warnings to the vendors.

A review of the legal proceedings taken under the Food and Drugs Act is of considerable interest. The Department has been pleased to note that many vendors have been severely dealt

with. Though there were only 92 convictions, the total fines, including costs, awarded against the defendants amounted to £1,048 5s. 11d. Of this amount, £654 4s. 1d. resulted from 50 convictions for adulterated milk, the average fine (including first offenders) thus being £13. It is very satisfactory to the Department that its activities under the Food and Drugs Act receive the support of the Magistracy, and that substantial fines are inflicted where flagrant breaches are committed. For 20 convictions in cases of short-weight bread the total fines amounted to £220 12s. 10d., or an average of £11 for each conviction.

The remaining convictions under the Act were secured mostly through non-compliance with the regulations as regards standard and labelling of certain drugs and foodstuffs. The total convictions under this heading were 22, and the total fines amounted to £173 19s.

A summary of the more important aspects of the work performed is set out in the following tables :—

INSPECTIONS DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Hospital District.	Number of Instances Articles were "seized" or "destroyed."	Number of Premises inspected engaged in manufacturing or selling Foodstuffs.	Number of such Premises requiring Action re Sanitary Defects.	Hospital District.	Number of Instances Articles were "seized" or "destroyed."	Number of Premises inspected engaged in manufacturing or selling Foodstuffs.	Number of such Premises requiring Action re Sanitary Defects.
Bay of Islands .. ..	..	192	23	Wellington	11	456	28
Kaipara	4	100	16	Wairarapa	2	633	15
Whangarei	3	330	24	Wairau .. ..	..	342	7
Auckland	17	658	43	Picton .. ..	..	108	2
Waikato	31	1,657	80	Nelson	1	284	1
Thames .. ..	..	675	113	Buller .. ..	..	166	..
Tauranga .. ..	..	356	10	Inangahua .. ..	..	22	..
Bay of Plenty	5	571	13	Grey .. ..	..	215	6
Taumarunui .. ..	..	1,106	48	North Canterbury	4	123	6
Waiapu	3	274	..	Ashburton	2	216	22
Cook .. ..	..	178	9	South Canterbury .. ..	..	23	5
Wairoa .. ..	..	108	2	Waitaki .. ..	..	161	20
Hawke's Bay	17	485	37	Otago	12	282	22
Waipawa .. ..	..	564	9	Vincent .. ..	..	73	18
Taranaki	1	519	..	Maniototo .. ..	..	16	4
Stratford .. ..	..	24	7	Southland .. ..	..	132	2
Hawera	3	76	6	Wallace and Fiord .. ..	..	12	..
Patea .. ..	..	7	1				
Wanganui	8	441	37				
Palmerston North	1	305	21	Totals	125	11,890	657

WEIGHING OF FOODSTUFFS DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Hospital District.	Number of Samples weighed.	Number of Vendors concerned.	Number of Samples complying.	Number of Vendors concerned.	Number of Samples not complying.	Number of Vendors concerned.	Number of Warnings issued.	Number of Prosecutions recommended.
<i>Bread.</i>								
Kaipara	34	9	21	6	13	4	3	..
Whangarei	27	5	25	5	2	2	..	..
Auckland	342	38	266	37	76	24	4	1
Waikato	318	48	316	48	2	1	..	..
Thames	286	16	267	16	19	4	4	..
Tauranga	20	2	16	2	4	1	..	..
Bay of Plenty	94	10	61	9	33	7	..	2
Taumarunui	367	33	327	33	40	13	1	1
Waiapu	95	10	90	10	5	1	1	..
Cook	84	18	84	18	..	..	..	..
Hawke's Bay	56	8	28	8	28	6	5	2
Waipawa	31	6	31	6	..	..	..	..
Taranaki	80	8	80	8	..	..	..	..
Hawera	98	28	54	25	44	9	5	4
Wanganui	20	3	3	2	17	2	..	3
Palmerston North	2	2	2	2	..	..	..	..
Wellington	95	23	89	22	6	1	..	1
Wairarapa	176	39	166	39	10	2	1	1
Wairau	15	15	15	15	..	..	..	..
Nelson	75	32	75	32	..	..	..	..
Buller	38	8	32	7	6	1	1	..
Grey	3	3	3	3	..	..	..	..
North Canterbury	117	38	55	22	62	16	4	6
Ashburton	1	1	..	..	1	1	1	..
Waitaki	127	14	126	14	1	1	..	..
Otago	282	38	281	37	1	1	1	..
Vincent	181	25	177	24	4	2	2	..
Maniototo	46	6	46	6	..	..	..	..
Southland	85	17	79	16	6	1	..	1
Wallace and Fiord	2	2	2	2	..	..	..	..
Totals	3,197	505	2,817	474	380	100	33	22

WEIGHING OF FOODSTUFFS DURING THE YEAR ENDED 31ST DECEMBER, 1919—*continued.*

Hospital District.	Number of Samples weighed.	Number of Vendors concerned.	Number of Samples complying.	Number of Vendors concerned.	Number of Samples not complying.	Number of Vendors concerned.	Number of Warnings issued.	Number of Prosecutions recommended.
<i>Butter.</i>								
Kaipara	1	1	1	1	..	..	..	..
Auckland	95	15	91	15	4	3	..	..
Waikato	324	59	319	58	5	1	1	..
Thames	34	3	34	3	..	..	..	..
Tauranga	60	4	60	4	..	..	..	..
Bay of Plenty	36	2	36	2	..	..	..	..
Taumarunui	328	28	328	28	..	..	..	..
Waipatu	47	21	47	21	..	..	..	..
Cook	81	13	69	11	12	2	2	..
Hawke's Bay	17	13	17	13	..	..	..	..
Waipawa	30	5	28	5	2	1	1	..
Hawera	21	10	19	9	2	1	1	..
Wairarapa	22	22	22	22	..	..	..	..
Wairau	10	10	10	10	..	..	..	..
Nelson	2	2	2	2	..	..	..	..
Buller	20	1	20	1	..	..	..	..
Grey	4	4	4	4	..	..	..	..
North Canterbury	58	4	54	3	4	1	1	..
Ashburton	8	2	8	2	..	..	..	..
South Canterbury	9	2	4	1	5	1	..	1
Waitaki	56	7	56	7	..	..	..	..
Otago	143	21	143	21	..	..	..	..
Vincent	94	11	94	11	..	..	..	..
Maniototo	32	5	32	5	..	..	..	..
Southland	34	5	33	4	1	1	1	..
Wallace and Fiord	13	3	13	3	..	..	..	..
Totals	1,579	273	1,544	266	35	11	7	1

SAMPLES OF MILK TAKEN AND DEALT WITH DURING THE YEAR ENDED 31ST DECEMBER, 1919.

[The column "Number of Prosecutions" means the number approved, whether legal proceedings have been taken or not. It will thus not necessarily agree with the number in the return of legal proceedings.]

Hospital District.	Number of Samples taken.	Number of Vendors concerned.	Number of Samples complying.	Number of Vendors concerned.	Number of Samples not complying.	Number of Vendors concerned.	Number of Warnings issued.	Number of Prosecutions recommended.
Whangarei	2	2	2	2	..	..	..	..
Auckland	132	128	124	121	8	8	1	7
Waikato	33	33	31	31	2	2	..	2
Thames	5	5	5	5	..	..	..	..
Bay of Plenty	1	1	1	1	..	..	..	..
Taumarunui	4	4	2	2	2	2	..	2
Cook	43	43	40	40	3	3	..	..
Hawke's Bay	32	31	30	30	2	2	1	1
Waipawa	27	25	26	24	1	1	..	1
Taranaki	15	12	15	12	..	..	..	..
Hawera	4	4	3	3	1	1	1	..
Patea	1	1	1	1	..	..	..	..
Wanganui	7	7	5	5	2	2	..	2
Palmerston North	1	1	..	..	1	1	..	1
Wellington	1,538	1,340	1,467	1,289	71	57	20	28
Wairarapa	22	11	22	11	..	..	..	..
Wairau	9	9	8	8	1	1	1	..
Nelson	16	13	9	9	7	5	1	6
Buller	7	7	5	5	2	2	..	2
North Canterbury	175	135	131	102	44	34	24	9
Ashburton	1	1	1	1	..	..	..	..
Otago	38	38	36	36	2	2	2	..
Southland	22*	22	16	16	3	3	1	2
Totals	2,135	1,873	1,980	1,684	152	126	52	63

* Includes 3 unofficial samples.

MAORI MEDICAL AID.

As in the past, the Department has continued its policy of supplying Maori settlements with district nurses, and of having regular inspections of Maori pas carried out. It is pleasing to note that various District Health Officers in their reports make special reference to the fact that the sanitary conditions among Maoris have shown considerable improvement. I think it may be taken generally that in a few years the standards of sanitation of the Maori will have approached closely to those of Europeans.

The experience of the influenza epidemic showed the necessity for the appointment of a Medical Officer who could devote his whole time to health work among the Maoris. Dr. Te Rangihiroa was therefore appointed Medical Officer for Maoris, with headquarters in Auckland, and

has been given the power of a District Health Officer. The services of this officer, who is pre-eminently qualified to deal with the special health problems of the Maori, have already proved of great value to the Department.

The following extracts from the reports of District Health Officers dealing with sanitary conditions among the Maoris are quoted as being of interest:—

Auckland.

"Improvements are noticeable in the general sanitation of Native settlements, due no doubt to the fact that we have more district nurses working among them. The interest shown by the newly appointed Medical Officer to Maoris, especially in the reforming of the Maori Councils and health matters generally, has done a great deal of good, and the results are that—(1) Medical and nursing assistance is more readily sought in cases of illness, which are more quickly notified; (2) on the whole more attempts are made to secure better housing and sanitary conditions; (3) except in the Waikato district, the notification of births and deaths is being better attended to, the nurses being instructed to constantly urge this matter upon the Maoris, the numbers of each occurring in their districts appearing in the nurses' monthly reports. It would be greatly to the betterment of the Maoris themselves if the Registration Act could be as rigidly enforced among them as among Europeans.

"The revival of the Maori Councils as Health Councils, and the appointment of more nurses and sanitary inspectors, should greatly assist in securing better health and sanitary conditions among the Natives. There have been three resignations of district nurses during the year, and fresh appointments to replace them, the chief difficulty in this work being that of securing suitable living-quarters for the nurses; but this is being steadily overcome by the recent locality allowances granted."

Napier.

"The Maori has become so very much a pakeha in his habits of life in this district as to hardly warrant a separate report on his sanitary condition. In most of the pas a separate kitchen and dining-room will be found for use at *huis*, and two of the communities, Pakipaki and Omahu, are talking of installing a drainage system with septic tanks in the pas."

Otago.

"The only Native settlement in the Waitaki Hospital District is at Moeraki, on the coast of North Otago, the total population being about seventy. The standard of sanitation is low, most of the Natives being in poor circumstances, and at least one member of a large proportion of the households is more or less affected with tuberculosis. The Maoris in the Otago Hospital District are located mainly at Puketeraki, Taiaroa Heads, and Taieri Mouth. No special inspections have been made of the settlements, but isolated inspections indicate that the sanitary conditions under which they live are fairly satisfactory."

JOURNAL.

The Departmental *Journal* has proved itself a valuable means of disseminating information on health and hospital matters. I hope to arrange that during the coming year more attention will be given to the preparation of special articles for this publication, especially on subjects of professional interest.

BOARD OF PUBLIC HEALTH.

I desire to express the Department's appreciation of the valuable assistance it has received during the year from the Board of Public Health. The advice and support of the Board in dealing with public-health matters involving large questions of policy have proved of great advantage. Among the matters brought before the Board and on which the Board has supplied the Department with its recommendations have been—The report of the Influenza Epidemic Commission; reorganization of the Public Health Department, and the Department's relation to local bodies; quarantine of ships and persons for influenza; housing; venereal diseases; vaccination against smallpox; proposed appointment of quarantine specialist; general policy for the Dominion for combating tuberculosis; possible outbreak of malaria in New Zealand; proposals for amending Public Health Act; and Social Hygiene Bill.

I am glad you have seen your way to approve the recommendations which have been laid before you with relation to the extension of the Board's powers, and trust Parliament will agree to the passing of the necessary legislation this session. By doing so the Board will be able to add considerably to the very useful service it has already rendered the Dominion.

REORGANIZATION AND ADDITIONS TO STAFF.

The reorganization of the Department which was mentioned in my report for last year has been gradually proceeded with.

During the year under review two new health districts were established—(1) the North Auckland District, with its headquarters at Whangarei, and (2) the Hawke's Bay District, with its headquarters at Napier; while since the close of the financial year the Wanganui-Taranaki District have come into being.

Additions to Head Office staff include Dr. D. S. Wylie, formerly Officer in Charge Trentham Military Hospital, who has been appointed Inspector of Hospitals, and Dr. M. H. Watt, formerly District Health Officer, Wellington, who has taken up duties as Assistant Chief Health Officer. The duties of the former will comprise inspection of hospitals and general supervision of the clinical activities of the Department, while the latter will be engaged in matters connected with the prevention and control of infectious disease and Public Health administration in general.

Further additions to the Medical Staff include the following District Health Officers: Drs. W. B. Mercer, T. F. Telford, T. McKibbin, A. D. S. Whyte, W. Findlay, C. E. Hercus, C. A. R. Davies, and J. Boyd. This very necessary increase to staff has made it possible to maintain in

each of the four main districts a full-time District Health Officer, with an Assistant, and in the smaller districts a full-time District Health Officer.

During the year important progress has been made in the direction of providing further facilities for bacteriological aids in the prevention and treatment of disease. Thus a fully equipped laboratory has been opened at Auckland under the charge of Mr. Armitage, who has been appointed Government Bacteriologist for that centre, while branch laboratories have been established at Napier and Invercargill.

PLUMBERS REGISTRATION ACT, 1912.

Four meetings of the Plumbers' Board constituted under the above Act were held during the year.

The Board held an examination under the Act in July, 1919. Sixty candidates presented themselves for examination, of whom seventeen qualified in the theoretical and nine in the practical test. As a result of this eleven new names were placed on the register, the persons concerned having completed both parts of the examination.

At the end of the year 1,281 names had been entered in the register since its initiation. Of this total thirty-five names have been removed, twenty-two through death in civilian life and thirteen through death on active service.

REPORTS ATTACHED.

The report of the Matron-in-Chief (Miss H. Maclean) and the Medical Officer to the Maoris (Dr. Te Rangihiroa) are attached.

A further appendix will be published when full data is available, giving a statistical report on the financial workings of Hospital Boards for the year ended 31st March, 1919.

I cannot conclude this report without referring to the splendid services rendered the Empire by certain officers of this Department. It is with the greatest pride that I am able to place on our annals the names of the following officers who have served the Empire overseas, and whose services have been graciously recognized by His Majesty:—

- Dr. D. S. Wylie (Colonel), C.M.G., C.B.E.
- Dr. R. H. Makgill (Lieut.-Colonel), C.B.E.
- Miss H. Maclean, R.R.C. (1st Class), and Nightingale Medal.
- Miss K. M. V. Maclean (Sister), R.R.C. (1st and 2nd Class), Mentioned in Despatches (3).
- Miss M. Grigor (Sister), A.R.R.C., Mentioned in Despatches.
- Mr. J. G. Roache (Lieut.-Colonel), D.S.O., Croix de Guerre, and Mentioned in Despatches (2).
- Mr. L. M. Spera (Major), M.C., and Mentioned in Despatches (3), and O.B.E.
- Mr. A. O. Von Keisenberg (Lance-Corporal), M.M.
- Miss J. Bignell, A.R.R.C.
- Miss I. G. Willis, A.R.R.C., Mentioned in Despatches (2).
- Miss Cameron, R.R.C. (1st Class).
- Miss E. M. Lewis, Serbian White Eagle, Serbian Royal Red Cross (2nd Class), St. Sava (3rd Class).

And in referring to the splendid service of these officers, we must not forget another officer who will always carry the marks of the terrible war—I refer to Private Neil Campbell, who lost his sight in the service of his country, and is now gallantly maintaining himself as a masseur.

I am confident that of the honours so graciously vouchsafed none gave greater pleasure to the Department generally than that awarded our Matron-in-Chief, Miss Maclean. It is largely, if not entirely, due to her untiring efforts that the name of the New Zealand Nursing Service stands so high in the opinion of those competent to judge, and when Miss Maclean received her well-merited decoration the honour conferred on her was greatly appreciated not only by her colleagues in the New Zealand Army Nursing Service, but throughout the nursing world.

In August, 1919, I was granted six months' leave, and during my absence the Department was under the control of my colleague Dr. R. H. Makgill, to whom I cannot adequately express my thanks and appreciation for services so efficiently and faithfully rendered. My special thanks are also due to another colleague, Dr. J. P. Frengley, Deputy Chief Health Officer and Deputy Inspector-General of Hospitals. Though officially "Deputy" Chief Health Officer, all matters relating to the Public Health and allied Acts are under his experienced and capable direction, and in these responsibilities he is very ably assisted by Dr. Watt, Assistant Chief Health Officer.

The report by Miss Maclean, Matron-in-Chief, as to the administration of the nurses and midwives and all that pertains thereto, will be read with interest, as showing the activities of this branch of the Department that has been under Miss Maclean's able control, and of whose untiring services I cannot adequately express my appreciation.

I have also to thank very heartily Mr. Killick, Secretary of this Department, and Mr. Drake, Chief Clerk, for efficient and loyal service.

I have, &c.,

T. H. A. VALINTINE,
Chief Health Officer and Inspector-General of Hospitals.

NURSES REGISTRATION ACT, MIDWIVES ACT, AND PRIVATE HOSPITALS.

The MATRON-IN-CHIEF to the INSPECTOR-GENERAL OF HOSPITALS.

SIR,—

I have the honour to report on the Nurses Registration Act, 1908, the Midwives Act, 1908, and Part III, Hospitals and Charitable Institutions Act.

Examinations were held under the Nurses Registration Act in June, 1919, and December, 1919. 224 candidates presented themselves for the examination, 189 of whom were successful, and their names have now been placed on the register.

Twenty-nine nurses trained overseas have applied for registration, and on verification of their certificates have been registered.

The Act for registration of nurses in England, Scotland, and Ireland having been passed on the 23rd December, 1919, which provides for reciprocal registration with the British Dominions and other countries, there will now be a definite standard on which to accept such applications in future. There will be a period of grace similar to that accorded under the New Zealand Act during which practising nurses who have not passed through the usual term of hospital training, but who have nevertheless attained a certain knowledge of and proficiency in the nursing of the sick, may be registered. As the New Zealand Act has now been in force for twenty years, it is questionable whether nurses registered under any such concessional clauses should be admitted to the New Zealand Register.

The regulations for training and examination of nurses which are to be formed by the three Councils under the Acts, and which will then have to receive the sanction of Parliament, are awaited with great interest. It will be necessary to safeguard the interests of New Zealand nurses, and to prevent the exploitation of probationer nurses by Hospital Boards which do not, or are not able to, afford a satisfactory training.

The time will soon come, I think, when, in order that our nurses trained in the smaller hospitals may be recognized if they desire to work in the Old Country, some amendments must be made in our Act to bring it into line. The chief difficulty will be in limiting the recognition of training-schools—restricting the admission of trainees to those with a number of beds equivalent to at least the lowest number which will be recognized under these new Acts. Many of our hospital training-schools are under forty beds, which will probably be the number specified, and in order not to penalize these hospitals or the nurses who enter them for training, a system of affiliation with larger ones, more extended than at present allowed under our regulations, may be necessary. Many hospitals are at present experiencing difficulty in obtaining the number of probationers required, and especially probationers of the right type of education—young women with a real desire to tend the sick or to help in the prevention of sickness. It has been proposed to accept certain young women who have served in military hospitals in New Zealand or elsewhere during the war, giving them some concession off their three-years course. The Overseas Settlement Mission delegates recently touring the Dominion approached the Department in regard to this scheme. Circulars were sent to the Hospital Boards outside the four centres, which do not experience the same difficulty with regard to applicants for training, with the result that a few Boards agreed to co-operate in the proposal. It is hoped that this may attract some desirable young women to enter the nursing profession in the Dominion. Many inquiries have also been made as to the prospects for fully trained nurses desiring to come out, and some few are now awaiting passages.

DISTRICT NURSING.

During the year the Department made an effort to extend the district nursing system, especially for country districts. The Hospital Boards find great difficulty in obtaining nurses for this work. It was thought that possibly the nurses might be attracted by the offer of Government appointments, carrying with them regular increments to salary and the benefits of superannuation. It was intended to appoint twelve nurses to the Public Health Department, and to station them in districts for which Boards had attempted to engage nurses without success. This scheme is proceeding, but not so rapidly as anticipated. There still appears to be a shortage of nurses for positions, and the nurses who have returned from active service abroad and been demobilized have not yet settled down to nursing-work.

The Native district work has progressed fairly well. There are now twenty nurses, stationed at Te Karaka, Tuparoa, Rawene, Te Kaha, Bay of Islands, Wairoa, Dargaville, Thames, Tuahiwi, Tauranga, Rotorua, Taupo, Opotiki, Taumarunui, Frankton, Tolaga Bay, Auckland, Hokianga, Otaki, and Canterbury, and it is hoped to have several more districts opened shortly.

MILITARY NURSES.

The nurses have practically all returned from active service, but, apart from those retained for service in the various military hospitals, a good many have not resumed their nursing-work. Several have taken special courses under the Repatriation Board. Some are engaged in massage, for which they qualified in England, and seven of the returned sisters have been given a twelve-months course at the Otago University and the Massage School, Dunedin Hospital.

Some of the sisters who were given leave from their hospitals have returned to their previous posts, but it has not been found that the Boards have quite appreciated the fact that these sisters, being returned soldiers, are entitled to special consideration in making appointments on their staffs, nor have they realized that the great experience these women have gained would be of value to the hospitals. This has notably been the case with one Board, which has treated a senior officer given leave for active service in a most unfair manner, in refusing to allow her to complete her service in the army, and superseding her with six months' leave on pay.

Seven of the military sisters underwent a very thorough training in the administration of anæsthetics in the newest methods, and after training had very extensive practice in casualty clearing-stations and stationary hospitals. So far one only of these sisters has been given the

opportunity of carrying on this work. Country hospitals are often at a great disadvantage and difficulty with regard to anæsthetics, and might well avail themselves of such expert assistance.

NURSES' SUPERANNUATION.

There is at present a scheme for consideration by the Hospital Boards at the conference in May which is being elaborated by the Actuary of the National Provident Fund. This is much needed. Nurses constantly ask what provision is being made for their old age. While salaries have greatly increased during the last decade, there is still not much margin for making a comfortable provision. Nurses even in private practice are the servants of the public, and due provision should be made out of public funds for their retirement.

The Nurses' Memorial Fund, instituted in memory of the New Zealand nurses who lost their lives in war service, has in a small degree filled this great need for a few nurses disabled by age or illness, and a small amount placed on the estimates last year for the purpose of subsidizing the annuities granted by the Council has eked out the income of the fund. The amount on the estimates for this year should be greatly increased.

NURSES FOR AUSTRALIA.

During the outbreak of influenza in Australia the Health Department of Victoria sent an appeal for assistance to New Zealand asking for fifty nurses to be sent to nurse influenza. It was not felt that so many could be spared, but twenty-five were sent, under Miss Polden. They were away for over six months, and did excellent work, and fortunately all returned safely.

PLUNKET NURSING.

This work is being carried on, as it has been during the war, chiefly by midwifery trained nurses with the supplementary training for six months in baby-care at the Karitane Harris Hospital. While these nurses are very good within their limits, I consider it is placing too much responsibility in the recognition of symptoms of illness on young midwifery nurses with one year's training in maternity nursing, and six months in the care of babies suffering practically only from forms of malnutrition. When placed in a district a Plunket nurse has little or no supervision by any but her lay committee; she works in many cases without medical advice, it being left to her to call a doctor if she thinks the case is beyond her, and failing to recognize signs of illness it frequently happens that she carries on too long without doing so. A general-trained nurse with midwifery training is the best Plunket nurse, and may more safely be placed in this rather independent position. In any case there should be an experienced supervising sister to travel to every district, and oversee the work of every Plunket nurse. This position is, I believe, soon to be created.

MIDWIVES ACT.

During the year there have been two examinations, at which 111 candidates presented themselves, and ninety-six passed and were placed on the register. Eighteen midwives were registered from overseas.

The St. Helens district midwives have been appreciated in the districts in which they have been settled. Their number has increased slightly, and the Department is receiving applications from time to time either from fresh districts or from women anxious to take up this work. There are, however, still not a sufficient number of midwives for private and public work, and it is to be regretted that the hardships of private maternity nursing in houses with no domestic help has induced many of the so-much-needed midwives to take up Plunket work, which involves no actual nursing or night work. In view of this difficulty in obtaining nursing and domestic help it seems necessary to provide more accommodation for maternity cases away from the homes that, under better conditions, are the fitting places for the birth of children. The Department is encouraging Hospital Boards to open small maternity hospitals in places where State hospitals have not been established.

STATE MATERNITY HOSPITALS.

There have been no special developments in the various St. Helens Hospitals during the last year.

Plans are prepared for new St. Helens at Auckland and Christchurch. The former town being a seaport, and having the largest poor population of the four centres, is greatly in need of this extension.

A new St. Helens Hospital will be opened during the year at Wanganui, a house which, with small alterations and additions, will be very suitable having been donated to the Public Health Department for this purpose.

In the St. Helens Hospitals 1,139 cases were confined during the year, 1,105 children were born alive, and there were 34 still-births; deaths of infants, 25; maternal deaths, 5. The number of confinements in the women's own homes was 552, with no maternal and no infant deaths.

The numbers for each St. Helens Hospital are as below :—

	Indoor.	Outdoor.	Deaths.	
			Mothers.	Infants.
Auckland	317	217	..	3
Wellington	278	92	2	8
Christchurch	220	142	2	6
Dunedin	123	96	1	8
Gisborne	90	..	..	..
Invercargill	111	5	..	..

There have been few changes in the staff of the St. Helens Hospitals. The Medical Officers and Matrons and Sub-Matrons remain as last year, with the exception of Invercargill, where a new Sub-Matron, Miss Rhind, was appointed in place of Sister Kearnes, resigned.

It is greatly to the satisfaction of the Department that these officers remain year after year at their posts. The Matrons especially have many difficulties, chiefly owing to the scarcity of domestic help.

Miss Inglis, Matron of St. Helens, Wellington, has been granted six months' leave to visit England.

OTHER MATERNITY HOSPITALS.

Statistics for Year ending 31st March, 1920.

Batchelor Maternity Hospital, Dunedin.—Number of patients confined, 164; 151 children born alive; 15 still-births; 3 maternal deaths and 5 infants' deaths. Five midwives were trained and registered during the year.

Mellardy Maternity Home, Napier.—There were 183 confinements; 178 children were born alive, including 5 sets of twins; 4 infants' deaths. Five pupils were trained and registered.

Maternity Home, Blenheim.—Number of patients confined, 70; 71 children born alive, including 1 set of twins; there were no still-births, and no maternal deaths; 1 infant died. No pupils trained.

Maternity Home, Picton.—Number of patients confined, 49; children born alive, 48; still-births, 2; maternal deaths, none. No pupils trained.

Alexandra Home, Wellington.—Number of patients confined, 106; children born alive, 100; still-births, 2; maternal death, 1; infant death, 1. Pupils trained and registered, 8.

Essex Maternity Home, Christchurch.—Number of patients confined, 52; children born alive, 51; still-birth, 1; maternal deaths, none; infants' deaths, 4. Pupils trained and registered, 2.

Cromwell Hospital Maternity Home.—Number of patients confined, 51; children born alive, 49; still-births, 2; maternal deaths, none; infants' deaths, 4.

Mangonui Hospital Maternity Ward.—Number of patients confined, 24; children born alive, 24; still-birth, 1; maternal deaths, none; infant deaths, none. No pupils trained.

Hokianga Hospital Maternity Ward, Rawene.—Number of patients confined, 29; children born alive, 27; still-births, 2; maternal deaths, none. No pupils trained.

Whangarei Hospital Maternity Ward.—Number of patients confined, 93; children born alive, 89; still-births, 4; maternal deaths, none; infant death, 1. Pupils trained and registered, 3.

Kawakawa Hospital Maternity Ward.—Number of patients confined, 35; children born alive, 35; maternal deaths, none; infant death, 1. One pupil trained and registered.

Salvation Army Maternity Home, Christchurch.—Number of patients confined, 35; children born alive, 33; still-births, 2; maternal deaths, none; infants' deaths, none. No pupils trained.

Salvation Army Maternity Home, Wellington.—Number of patients confined, 52; children born alive, 51; still-birth, 1; maternal deaths, none; infants' deaths, 3. No pupils trained.

Salvation Army Maternity Home, Auckland.—Number of patients confined, 41; children born alive, 39; still-births, 2; maternal deaths, none; infants' deaths, 3. No pupils trained.

Salvation Army Maternity Home, Roslyn, Dunedin.—Number of patients confined, 46; children born alive, 46; still-births, none; maternal death, 1; infant death, 1. No pupils trained.

Salvation Army Maternity Home, Gisborne.—Number of patients confined, 43; number of children born alive, 40; still-births, 3; maternal deaths, none; infant death, 1. No pupils trained.

Salvation Army Maternity Home, Napier.—Number of patients confined, 47; number of children born alive, 44; still-births, 3; maternal deaths, none; infant death, 1. One pupil trained and registered.

MASSAGE.

It is hoped to again introduce the Bill for the registration of masseurs during the coming session. It is a measure which should be passed both for the protection of the public and of the women and men who have gone through a recognized course of training in order to qualify. The great impetus given to massage and electrical treatment by the need arising from the injuries caused by the war for skilled treatment has caused a large number of students to enter for training. It is being more and more recognized there must be trained masseuses on the staffs of hospitals, and a register to guide the Boards making appointments is almost a necessity. In the meantime all those who have qualified will be eligible for registration as soon as the Bill is passed.

HOME-NURSING LECTURES.

Following on the influenza epidemic of 1918-19, the Department appointed nurses to give instruction to classes of people desiring to learn something of the care of the sick in their homes, or in cases of national emergency such as had just been passed through. The teaching thus given has been greatly appreciated, and with the assistance of the Women's National Reserve in forming centres and classes it has reached a very large number of people.

There are still two nurses engaged in the work for the Public Health Department, both returned sisters. In the Auckland District Sister Mirams has been kept fully occupied, and has visited many country places. In the Wellington District Sister Janet Moore, A.R.R.C., carried on the lectures for four months, and for a shorter time in Dunedin, Otago, and Southland. Miss Lord was sent to Hawke's Bay and to Gisborne, and at the present time Sister West, who compiled a

very useful little booklet, "Hints on Home Nursing," which has been sold at the classes for a nominal price, is lecturing and demonstrating in the Taranaki District and Wanganui, and has also spent some weeks in the West Coast holding classes in the different towns and country places. Sister McAllum, A.R.R.C., gave a course in the Wairarapa and Waipawa districts.

The classes often consist of from sixty to eighty members, and both men and women have asked for instruction. The demand still continues, and more nurses will be required for the work.

In conclusion, I would like to emphasize the great increase of work in my Department, in coping with which I have had the loyal assistance of Miss Bicknell in Wellington and Miss Bagley in Auckland. Miss Willis, for some months helping with my military work and now as an Assistant Inspector, has been also of great assistance. Miss Wilson (late Matron, Walton-on-Thames Hospital) has since her return acted most efficiently as assistant in the military work.

I have, &c.,

H. MACLEAN, Matron-in-Chief.

The Inspector-General of Hospitals, Wellington.

REPORT ON HEALTH OF THE MAORIS.

The MEDICAL OFFICER FOR THE MAORIS to the CHIEF HEALTH OFFICER.

SIR,—

I have the honour to report on the health of the Maoris.

VITAL STATISTICS.

The last census taken of the Maori population was in 1916, when the return showed—Males, 25,933; females, 23,843; total, 49,776. This showed a decrease of 68 from the previous census of 1911, but it is more than made up by the number of Maoris who were away on active service. The first Maori Contingent of 500 men left early in 1915; the second Contingent arrived in Egypt in November of the same year, and the third Contingent early in 1916. From this it will be seen that there must have been nearly 1,000 Maoris who missed the census of 1916.

Registration.

The registration of Maori births and deaths has always been a difficult question. It takes generations to educate a community into a routine, and it will only be by enforcing a penalty that the matter will be put on a satisfactory basis. Up to 1912 Maoris were exempted from the necessity of registration. The Births and Deaths Registration Amendment Act, 1912, empowered the Governor in Council to make regulations providing for registration in districts or throughout New Zealand. In 1913 regulations were gazetted, and Registrars for Maori births and deaths appointed. It is largely done by the Native-school teachers. There is no body more keen to furnish authentic statistics than the Registrars themselves, but they have to contend against Maori apathy and lack of realization of how important these matters are. I am reluctantly compelled to the opinion that registration of deaths should be enforced in the same manner as amongst pakehas. A few post-mortems would create a drastic change and probably curtail the operations of amateur tohungas, who are still a menace to the community.

Though a large number of births and deaths must still go unregistered in some districts, the numbers registered under section 20, Births and Deaths Registration Amendment Act, 1912, and the main Act, give valuable information:—

<i>Births.</i>						Total.	Increase or Decrease over previous Year.
1914	...	...	...	...	...	961	...
1915	...	...	...	...	...	976	+ 15
1916	...	...	...	...	...	1,031	+ 55
1917	...	...	...	...	...	1,261	+ 230
1918	...	...	...	...	...	1,179	+ 82

These figures show a steady increase except for the fatal influenza year of 1918.

<i>Deaths.</i>						Total.	Increase or Decrease over previous Year.
1914	...	...	...	...	...	765	...
1915	...	...	...	...	...	817	+ 42
1916	...	...	...	...	...	808	- 9
1917	...	...	...	...	...	773	- 35
1918	...	...	...	...	...	2,036	+ 1,263

Except for 1915, there was a slight decrease in the number of deaths until the catastrophe of 1918. Dr. Makgill has pointed out that 1,160 deaths were due to influenza in the last three months of 1918, yielding the huge death-rate of 226 per 10,000 of mean population, as against 49.6 of the white population from the same cause. It is probable that 1,160 is a low estimate, so that the year 1918 must figure as the severest setback the race has received since the fighting days of Hongi Hika. Influenza in three months caused more casualties to the Maoris than the campaigns in Gallipoli, France, and Belgium.

A comparison between the births and deaths shows a steady increase of births over deaths, except for 1918 :—

						Increase.	Decrease.
1914	...	...	...	...	...	196	...
1915	...	...	...	...	...	159	...
1916	...	...	...	...	...	223	...
1917	...	...	...	...	...	448	...
1918	...	...	...	...	...	...	857

MAORI HEALTH ORGANIZATION.

The results of the second wave of influenza in 1918 showed the urgent necessity of some organization amongst the Maoris themselves to assist Health officials and medical men. Maori villages were circularized to form Health Committees to assist in combating epidemics. It was felt, however, that the Maori Councils with their Village Committees were the proper channel for such work. A clause was subsequently included in the Native Land Amendment Act, 1919, with the view of bringing the Councils into closer co-operation with the Health Department and increasing and better defining their duties in health matters. Model by-laws have been drafted to suit Maori requirements, and it is hoped that by reviving and strengthening the Councils and putting them directly under the Health Department much good will result.

SANITARY INSPECTORS.

Some years ago a number of Sanitary Inspectors were appointed from amongst the chiefs and leading men in various Maori districts. They did invaluable work in their day in overcoming prejudice and opposition by means of their personal standing with the tribes. The system, however, was allowed to lapse. Sanitary Inspectors are now needed of a younger and more energetic type, and sufficiently educated to learn the scientific details of their work. Authority was given for the appointment of three Inspectors for Maori work, and one, Inspector Leaf, a returned officer who had distinguished himself in the field with the Maori Battalion, was appointed for Hokianga. Two others are to be appointed. Inspector Leaf has fully justified his appointment.

NATIVE HEALTH NURSES.

One of the most important branches of Native health work is that being done by the Native Health nurses. They see patients at their headquarters and visit the schools and villages in their districts. By health lectures and practical instructions the preventive part of their work is as important as the actual nursing of cases. In epidemics their services are invaluable, and have saved Hospital Boards much worry and expense. In typhoid cases where it is difficult to transport Maori patients to hospitals they have started camps in the affected villages and nursed cases throughout. Not only has this got over the repugnance of the Maoris against entering hospital and parting from their relatives, but it is hoped that the general routine with regard to nursing, feeding, and disposal of excreta, &c., will prove of great educational value to the people. The Maoris realize and appreciate the good work being done by the nurses, and many districts are asking for nurses to be appointed. As the nurses have a very strenuous time in many of the back districts, it is necessary that at least they be comfortably housed. Some Hospital Boards have assisted, but many do not. If the housing problem could be solved, more nurses could be placed in districts which need them urgently. During the year nurses have been appointed to new districts at Dargaville, Opotiki, and Tolaga Bay. The nurse at Pakotai, Whangarei district, has done invaluable work amongst the Maoris during the influenza recrudescence. The Board nurses at Whangaroa and Mokai do work amongst the Maoris. During the year the Hospital Board built a cottage at Taumarunui for the nurse. At Hapua, in the farthest-north settlement, the Natives collected money which assisted in building a small cottage, which Nurse Fergusson, of Kaitaia, makes her headquarters for the district, during regular visits. Nurses are needed at Wanganui, Taranaki, Mohaka, and other districts. I consider the nursing branch of the Maori work the one that should be assisted and pushed on more than any others.

SUBSIDIZED MEDICAL OFFICERS.

Subsidized medical officers are maintained in many districts by the Department. It has been found necessary to define their working-radius, as different conditions exist in various districts.

Native-school teachers in parts remote from medical men are supplied with stock medicines by the Department for the common ailments prevalent amongst their pupils. They do a considerable amount of work in their own time, and the assistance and support they give the Department is very great. Miss Bagley, Superintendent of Native Nurses, in my absence attended a Conference of Native-school teachers held in Auckland, and addressed them on the Department's work amongst the Maoris. She was assured by the Conference of their hearty co-operation.

GENERAL HEALTH.

The general health of the Maoris for the past year has been very good, and with the exception of some typhoid outbreaks and mild influenza the districts have been fairly quiet.

INFECTIOUS DISEASES.

Influenza.—The type of influenza has been mild, and there was no recrudescence of the type of 1918. In the districts where Native Health nurses are located their reports show that they saw and nursed 563 cases. As a result of the heavy mortality of 1918 the Maoris are much more

ready to take precautions, and in many districts they are quite ready to abandon travelling to *hūis* if there is a suspicion of influenza about. The Department's pamphlet on precautions with regards to influenza was translated into the Maori language and widely circulated.

Enteric Fever.—Epidemics broke out in the winter. The winter incidence of enteric is peculiar to the Maoris and has yet to be explained. Cases occurred at Te Araroa (East Coast), the Bay of Plenty district, Thames, Taupo, Hokianga, Whangaroa, Kaipara, Waikato, and Mokai. Camps were established at Te Araroa, Omarunutu, Whakatane, Ruatoki, Paroa, Ohinepanea, and Kakanui, whilst in other parts the patients were attended to in their homes by the nurses. It is on occasions of this nature that the work of the nursing staff cannot be too highly commended, whilst Sanitary Inspectors have a great deal to do in pitching camps and cleaning up the villages. The nurses' reports show that they nursed 123 cases.

Most of the epidemics amongst the Maoris are probably due to carriers. The only effective protection would be wholesale inoculation with anti-typhoid vaccine. As this is a very difficult matter, the inoculation of school-children, who furnish by far the majority of cases, was proceeded with, with as many of the adults as could be secured. The Native schools at Te Araroa, Horoera, and Hicks Bay, with the people up the Awatere Valley, were inoculated, as were also some of the schools in the Bay of Plenty district. By inoculating in the villages where outbreaks have occurred the number of cases should be reduced from year to year.

Phthisis.—Cases of phthisis are a serious menace in a Maori community. The nurses' reports for the year show twenty-five cases, but there are, of course, infinitely more. The Native Health nurses now have instructions to keep a register of cases in their districts and visit them regularly. The Department's pamphlet on consumption has been translated and printed in Maori. The nurses explain these pamphlets to patients, leave copies with them and their relatives, and endeavour as far as possible to see that the instructions are carried out. The Maoris' aversion to parting with their sick renders it very difficult to get their consent to sanatorium treatment. The whole question is a very difficult one with Europeans, but heart-breakingly more so in the case of Maoris.

The other infectious diseases, with the exception of an outbreak of diphtheria at Opotiki, were negligible.

Scabies.—Nurses report a good deal of scabies amongst many of the schools. This offers a more serious problem than at first sight appears. The children by scratching the ordinary scabies with dirty finger-nails cause a secondary infection which results in sores and ulcers. This is the condition commonly known as *hakihaki* to the Maoris. The children get run down, and what with constant scratching and the consequent distraction of mind, it is impossible for teachers to get the best results for their work, and the efficiency of the school must suffer. The Department can supply Native schools with sulphur-ointment, but this is useless without preliminary hot baths and the disinfection of the clothing and blankets. The seriousness of scabies as a factor in the loss of efficient man-power was recognized in the recent war by the establishment of scabies hospitals. The supply of bath-tubs to affected schools, with supervision of treatment by our Health nurses, would help matters.

GENERAL SANITARY CONDITION.

The general condition has greatly improved within the last few years. In many places, owing to individualization of land, villages have been reduced to a meeting-house, whilst the people are living apart in houses on their own share of the land. Buildings have improved, the instinct of rivalry which is such a marked characteristic of the Maori being largely helpful. On the East Coast the Maori sheep-farmers have in many cases fine homes with a water system established, with septic tanks and all the latest sanitary improvements. In the poorer districts, however, privies and latrines are still conspicuous by their absence. It is extraordinary the high percentage who evince a marked prejudice to the use of latrines. It is to be hoped, however, that the large proportion of the younger male population who carried out sanitary regulations in the field will give us better material to work on, and help to leaven the lump. With the model by-laws translated into Maori and gazetted for the various Council districts, steady progress should result. Considerable spade-work has been done in the past, and the race has now reached the stage of enlightenment and progress when the few who obstruct and retard must not be allowed to endanger the health and lives of the community.

In conclusion, I have to acknowledge the ready support and assistance of the District Health Officers and their staffs in any matters affecting the health of the Maoris.

I have, &c.,

TE RANGIHIROA.

Medical Officer to the Maoris.

The Chief Health Officer, Wellington.

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