

## **Annual report of the Health Officer for the City of Rangoon.**

### **Contributors**

Rangoon (Burma). Health Office.

### **Publication/Creation**

[Rangoon] : [Municipal Printer], [1930]

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**CORPORATION OF RANGOON.**

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**ANNUAL REPORT**  
**OF**  
**THE HEALTH OFFICER**

**For the City of Rangoon**

**For the year 1930.**

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THE BURMA GUARDIAN PRESS.



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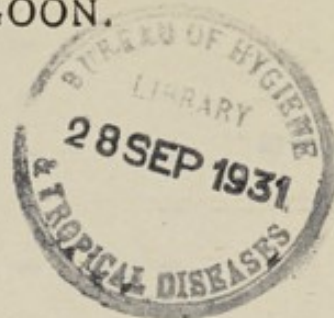
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To

THE COMMISSIONER,

CORPORATION OF RANGOON.



SIR,

I have the honour to submit my Annual Report on the Sanitary Administration of the City of Rangoon for the year 1930, together with the Vaccination report for the official year 1930-31, the reports of the Medical Officer, Contagious Diseases and Observation Hospitals and the Analyst's report, on the working of the Laboratory, for the year, 1930.

I have the honour to be,

SIR,

Your most obedient servant,

K. R. DALAL,

L.M. & S., D.T.M., D.P.H.,

HEALTH OFFICER,

*Corporation of Rangoon.*

HEALTH OFFICE, }  
*The 26th May, 1931.* }

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# SUMMARY OF STATISTICS. FOR THE YEAR 1930.

Population by the Census of 1921	...	...	...	...	...	3,45,505
Estimated Population for 1930	...	...	...	...	...	3,91,058
Area of the City of Rangoon	...	...	...	...	...	30.40 sq. Miles.
Number of live births registered	...	...	...	...	...	7,974
Birth-rate per 1,000 Census Population	...	...	...	...	...	23.08
Number of deaths	...	...	...	...	...	9,541
Death-rate per 1,000 Census Population	...	...	...	...	...	27.61
Death-rate per 1,000 estimated Population	...	...	...	...	...	24.40
Number of deaths amongst infants under one year	...	...	...	...	...	2,218
Infant death-rate per 1,000 births	...	...	...	...	...	278.15
Plague—Number of deaths from	...	...	...	...	...	38
„ Death-rate	...	...	...	...	...	0.11
Small-pox—Number of deaths from	...	...	...	...	...	15
„ Death-rate	...	...	...	...	...	0.04
Cholera—Number of deaths from	...	...	...	...	...	22
„ Death-rate	...	...	...	...	...	0.06
Influenza—Number of deaths from	...	...	...	...	...	13
„ Death-rate	...	...	...	...	...	0.04
Tuberculosis—Number of deaths from	...	...	...	...	...	761
„ Death-rate	...	...	...	...	...	2.20
Respiratory Diseases—Number of deaths from	...	...	...	...	...	1,967
„ Death-rate	...	...	...	...	...	5.69
Cerebro-Spinal Fever—Number of deaths from	...	...	...	...	...	5
„ Death-rate	...	...	...	...	...	0.01
Beri Beri—Number of deaths from	...	...	...	...	...	73
„ Death-rate	...	...	...	...	...	0.21
Diphtheria—Number of deaths from	...	...	...	...	...	8
„ Death-rate	...	...	...	...	...	0.02
Cancer—Number of deaths from	...	...	...	...	...	35
„ Death-rate	...	...	...	...	...	0.10
Puerperal Septicaemia—Number of deaths from	...	...	...	...	...	31
„ Death-rate	...	...	...	...	...	0.09



# SUMMARY OF STATISTICS FOR THE YEAR 1920

Population for the Census of 1921	10,000,000	10,000,000	10,000,000
Estimated Population for 1920	9,800,000	9,800,000	9,800,000
Area of the City of Chicago	434 sq. miles	434 sq. miles	434 sq. miles
Number of deaths registered	2,214	2,214	2,214
Death rate per 1,000 living population	22.4	22.4	22.4
Number of deaths	2,041	2,041	2,041
Death rate per 1,000 living population	20.4	20.4	20.4
Deaths from 1,000 registered population	20.4	20.4	20.4
Number of deaths among infants under one year	2,214	2,214	2,214
Infant death rate per 1,000 living	22.4	22.4	22.4
Deaths—Number of deaths from	22	22	22
Deaths rate	0.22	0.22	0.22
Smallpox—Number of deaths from	17	17	17
Deaths rate	0.0017	0.0017	0.0017
Cholera—Number of deaths from	2	2	2
Deaths rate	0.0002	0.0002	0.0002
Influenza—Number of deaths from	13	13	13
Deaths rate	0.0013	0.0013	0.0013
Tuberculosis—Number of deaths from	701	701	701
Deaths rate	0.00701	0.00701	0.00701
Respiratory Diseases—Number of deaths from	2,214	2,214	2,214
Deaths rate	0.2214	0.2214	0.2214
Cerebral Spinal Fever—Number of deaths from	2	2	2
Deaths rate	0.0002	0.0002	0.0002
Scarlet Fever—Number of deaths from	2	2	2
Deaths rate	0.0002	0.0002	0.0002
Diphtheria—Number of deaths from	2	2	2
Deaths rate	0.0002	0.0002	0.0002
Cancer—Number of deaths from	2	2	2
Deaths rate	0.0002	0.0002	0.0002
Scarlet fever—Number of deaths from	2	2	2
Deaths rate	0.0002	0.0002	0.0002
Scarlet fever—Number of deaths from	2	2	2
Deaths rate	0.0002	0.0002	0.0002

# **ANNUAL PUBLIC HEALTH REPORT**

**For the year 1930.**

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## **Climatic Conditions.**

Details of Meteorological data for the City of Rangoon are given in the Statement attached to this Report.

The total rainfall amounted to 110.93 inches showing 5.47 inches higher than the average for the previous five years and 12.62 inches higher than the rainfall in 1929.

## **Area & Population.**

The area of the City is 30.40 square miles including the Rangoon and Pegu Rivers and the Pazundaung Creek.

The 1921 Census gives the population of Rangoon as being 3,41,962, a decennial increase of 48,646. In October 1924, a portion of Kamayut with a Census Population of 3,543 was included within the Corporation limits, making the total Census Population of the City of Rangoon 3,45,505.

The Estimated Population for the year 1930 was 3,91,058.

## **Births & Birth-rates.**

The number of births registered during the year was 7,974 of which 4,002 were males and 3,972 females as compared with 8,265 (males 4,288, females 3,977) in 1929. The birth-rates for the years 1930 and 1929 on the Census Population were 23.08 and 23.92 respectively.



The birth-rate calculated on the Estimated population of 1930 was 20·39. The highest birth-rate was recorded in the Newly Added Area, namely 54·76 while the lowest was in Cantonment, namely 6·49.

Male births exceeded female births in the proportion of 100·76 to 100.

The following table gives the number of births and birth-rates for the various communities:—

Communities.	Number of births.	Birth-rates.
Burmese	... 3,048	... 28·88
Hindus	... 2,458	... 19·57
Mohammedans and Malays	... 1,052	... 16·95
Chinese and Panthays	... 731	... 30·31
Anglo-Indians	... 312	... 37·49
Europeans	... 74	... 18·79
Other Classes	... 299	... 18·79

The following Statement gives the birth-rates in different circles per 1,000 female population (Census) at the child-bearing period between the ages of 15 and 45 for the years 1929 and 1930:—

Circles.	1930.	1929.
Newly Added Area	... 285	195
South Kemmendine	... 189	215
Botataung	... 169	137
Dala	... 160	173
South-West Town	... 157	169
South-East Town	... 155	117
North Kemmendine	... 152	137
Tamwe	... 146	188
Theinbyu	... 144	134
Kanaungto	... 134	112
North-West Town	... 119	88
Taroktan	... 115	84
Lanmadaw	... 112	115
Yegyaw	... 101	180
North-East Town	... 89	88
Cantonment	... 39	28



### Still-births.

630 Still-births were recorded during the year. 283 of these were of Burmese parentage, 196 of Hindu parentage, 95 of Mohammedan and Malay parentage, 31 of Chinese and Panthay parentage, 10 of other Classes (including 1 death of which race was unknown), 11 of Anglo-Indian parentage and 1 of European parentage.

The percentage of Still-births to the total births of the different Communities works out as follows : —

Communities.	Number of births.	Number of Still-births.	Percentage of Still-births to births registered.
Burmese	3,048	286	9.38
Mohammedans and Malays	1,052	95	9.03
Hindus	2,458	196	7.97
Chinese and Panthays	731	31	4.24
Anglo-Indians	312	11	3.53
Europeans	74	1	1.35
Other Classes	299	10	3.34
° (including 1 in which race was unknown)			
	7,974	630	7.90

Out of 630 Still-births, the confinements in 262 cases were supervised by unqualified Midwives or relatives.

### Deaths and Death-rates.

9,541 deaths (males 5,878, females 3,662 and 1 of which sex was unknown) were registered during the year as against 10,980 (males 6,737, females 4,243) in 1929, a decrease of 1,439.

The death-rates on the Census population for the years 1930 and 1929 work out at 27.61 and 31.78 respectively. The death-rate on Estimated population for the year 1930 was 24.40 as compared with 28.46 in 1929. Of the total deaths, 523 occurred amongst individuals not normally resident in Rangoon but who had come to Rangoon during their final illness and died in Rangoon.

If this number be excluded from the total number of deaths registered, the death-rate for the year on the Estimated population would be 23.06.

The number of deaths registered and the death-rates for the past five years are given in the table below :—

Year.	Deaths.	Death-rate on Census Population.	Death-rate on Estimated Population.
1925	12,373	35.81	33.90
1926	12,231	35.40	33.04
1927	10,851	31.41	28.91
1928	11,690	33.83	30.71
1929	10,980	31.78	28.46



The number of deaths and death-rates on Census population for the various Communities were as follows:—

Communities.	No. of deaths.	Death-rate.
Burmese	3,288	31·16
Hindus	3,302	26·28
Mohammedans and Malays	1,418	22·85
Chinese and Panthays	847	35·12
Anglo-Indians	179	21·50
Europeans	44	11·18
Other Classes (including 17 deaths in which race was unknown)	463	29·10

### Infantile Mortality.

2,218 infants died before completing their first year of life, giving an infantile mortality rate of 278·15 per 1,000 births as compared with 2,623 infant deaths with an infantile mortality rate of 317·36 in 1929.

1,733 of these deaths occurred among infants born within the City and the remaining 485 of infants born outside Corporation limits.

A large number of children born outside the City limits are brought into the town every year for which no record is available.

If the 485 infants born outside Corporation limits be excluded from the total number of infants who died before reaching their first year of life, the infantile mortality rate for the year under report would be 217·31 per 1,000 births.

Of the 1,733 deaths of infants referred to above, 1,070 confinements were attended to by unqualified Midwives, 359 by qualified persons, 159 by the Maternity and Infant Welfare Society and the remaining 145 were confined at the Dufferin Hospital.

In the year 1929, 8,265 births were registered in Rangoon Town. Enquiries into the deaths of such of these infants dying before completing their first year of life showed that 1,890 of them died. The mortality rate works out at 228·38. Of these 1,890 infants, 807 died in the first month, 342 in the second month, 319 in the third month, 123 in the fourth month, 66 in the fifth month, 44 in the sixth month, 42 in the seventh month, 42 in the eighth month, 41 in the ninth month, 24 in the tenth month, 25 in the eleventh month and 16 in the twelfth month.

The following statement gives the causes of infant deaths, their number and infantile death rate per 1,000 births in different Communities for the year 1930:—



Statement showing the causes of infant deaths, their number and infantile death-rate per 1,000 births in different Communities for the year 1930.

Cause of Death.	Hindus.	Moham- medans and Ma- lays.	Burmese.	Chinese and Pan- thays.	Shans.	Karens	Euro- peans.	Anglo- Indians.	Jews.	Armen- ians.	Other Classes.	Total.
Premature Birth	143	58	146	41	...	...	1	6	...	...	6	401
Malnutrition	82	32	72	12	...	...	...	2	...	...	5	205
Convulsions	141	79	254	41	...	3	...	7	...	...	19	544
Bronchitis & Pneumonia	171	72	167	54	...	2	2	7	...	...	41 <sup>o</sup>	516
Enteritis	30	19	23	3	...	1	...	2	1	...	3	87
Diarrhoea and Dysentery	59	21	41	11	...	3	...	3	...	...	15	153
Obstruction of Bowels	23	9	12	1	...	...	...	1	...	...	3	49
Marasmus	31	11	34	2	...	1	...	...	...	...	2	81
Whooping Cough	...	...	...	...	...	1	...	...	...	...	...	1
Fever	21	3	13	1	...	...	...	2	1	...	1	42
Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	1	1	...	2	...	...	1	1	...	...	1	7
Plague	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	1	...	...	...	...	...	...	...	...	1
Other Causes	37	19	57	5	...	...	...	4	...	...	9†	131
Total	739	324	825	173	...	11	4	35	2	...	105	2,218
Infantile Mortality rate per 1,000 births.	300.65	307.98	270.67	236.66	...	186.44	54.05	112.18	74.08	..	509.70	278.15

• Including 1 death of which race was unknown.

† Including 5 deaths of which race was unknown.



Prematurity, Malnutrition, Convulsions, Bronchitis and Pneumonia were the principal causes of Infant deaths.

The following table shows the Infantile Mortality rate for the past six years:—

1925	...	351·85
1926	...	320·39
1927	...	293·88
1928	...	340·69
1929	...	317·36
1930	...	278·15

I have dealt with the principal causes of this high infantile death-rate in the Cities of the East and the peculiar living conditions found in the great mass of the labour community in this town in my previous reports and I need here only draw attention to the slow decline in the death-rate of infants under one year old for the past six years as will be seen from the statement given below of the investigations carried out year after year of the number of infants born in the town and the total number of those found dead before they reach the age of one year.

1924	...	270·56
1925	...	265·12
1926	...	212·09
1927	...	220·07
1928	...	220·85
1929	...	228·68

Of the 7,974 births recorded during the year under report:—

- 1,459 were attended to by qualified Medical Practitioners or Midwives,
- 1,562 were confined at the Dufferin Hospital,
- 1,145 were confined at the Maternity and Infant Welfare Society Shelters,
- 3,781 were attended to by unqualified Midwives,
- 17 were attended to by friends and relatives,
- 1 birth was registered in Cantonment, and
- 9 births in the Military Police Hospital.

The percentage of confinements attended to by unskilled women was 47·63 and the percentage of confinements attended to by qualified Midwives including those confined at the Dufferin Hospital, Military Police Hospital and by the Maternity and Infant Welfare Society was 52·36.



The following table gives the Summary of the conditions of births registered for the past three years with their percentage rates:—

	1928.	1929.	1930.
Total No. of births including Still-births registered	8,009	8,941	8,604
Total No. of Still-births notified	583	676	630
Percentage of Still-births to total No. of births registered	7.85	8.18	7.90
Total No. of births excluding Still-births	7,426	8,265	7,974
Total No. of confinements attended by qualified Doctors or Midwives	1,225	1,452	1,459
Percentage of confinements attended by qualified Doctors or Midwives	16.50	17.57	18.30
Total No. of children born in Dufferin Hospital	1,306	1,459	1,562
Percentage of children born in Dufferin Hospital	17.59	17.65	19.59
Total No. of confinements attended by the Maternity and Infant Welfare Society	696	1,140	1,145
Percentage of confinements attended by the Maternity and Infant Welfare Society	9.37	13.79	14.36
Total No. attended by friends and relatives	4	6	17
Percentage attended by friends and relatives	0.05	0.07	0.21
Total No. of births registered in Cantonment	39	15	1
Percentage of births registered in Cantonment	0.53	0.18	0.01
Total No. of births registered in Military Police Hospital	8	11	9
Percentage of births registered in Military Police Hospital	0.11	0.13	0.11
Total No. of confinements attended by unqualified Midwives	4,148	4,182	3,781
Percentage of confinements attended by unqualified Midwives	55.86	50.60	47.42

### Maternity & Infant Welfare Clinics.

During the year under report the total number of births registered in the City was 7,974 and the total number of deaths registered of infants having died within their first year of life was 2,218 giving a crude infantile mortality rate of 278.15 per 1,000 births. Unfortunately, owing to the unique conditions prevailing in this City on account of the huge floating population, the births of a very large number of the infants born in this town are not registered by the parents concerned as evidenced from the large number of births detected by the Vaccinators and the Lady Health Visitors employed by the Corporation. A certain number, however, escape being registered at all and some born outside the City limits are brought in during the first year of the child's life and all deaths taking place amongst these two groups are registered in our town mortality figures though their births are not correspondingly entered in our registers. Thus the number of deaths is augmented and the figure of infantile death-rate which is calculated on the total number of births registered in the town thus arrived at does not give the true index of the deaths of infants under one year in our City. If the figures could be corrected on the above lines the actual infantile mortality rate of our City would show a much lower figure. However, even this figure would be a very high one compared to those of Cities in the West.

To remedy this state of affairs, the chief measures that have been found most efficacious are the establishment of Maternity and Child welfare Centres.



This subject was first prominently brought to the notice of the Corporation in my Annual Report for the year 1923 from which I will quote here only one paragraph which gives the line of action to be taken in a concise form :—

“Every circle should have its own Maternity Shelter maintained by the Corporation for the benefit of the poor. Similarly every circle should have its own qualified Midwife to visit all the localities inhabited by the poor, give advice on the prevention of diseases and the care and up-bringing of infants, find out prospective mothers among the poor and induce them to go to the Maternity homes provided for them free, and where objected to on grounds of sentiment, religion or family conditions attend these women in their own homes during confinement and thereafter. Similarly every circle should have its own free Municipal Dispensary where the poor may be treated for illness free of cost.”

This subject was again referred to by me in a more elaborate form in my subsequent Annual Reports and it has been a source of great pleasure and gratification to me to find much active and earnest interest evinced by some of the members of the Corporation in this subject.

Poverty, ignorance, insanitary dwellings, unsatisfactory living conditions and injudicious infant feeding are though the principal causes of high infantile mortality, not a little is contributed by the mother before the child is born, for the health and life of the newborn infant greatly depends upon the health, care and attendance given to the mother before, during and after confinement. The most important period of a child's life is the nine months of life prior to birth and it is during this vitally important period, that the mother's health and the child's life are at stake. This ante-natal period is practically as important, if not more, as the period following birth in preventing all causes of ill-health that lead to premature or early death of the infant. So any measures taken for the reduction of infantile mortality in this City should group themselves under the head of Maternity and Child Welfare Centres and Ante-natal and Post-natal Clinics.

The chief value of these centres is to provide medical and hygienic advice to prospective mothers and the care and treatment of the newly born infants and children. Mothers should be urged to bring their infants whether ailing or not for periodical weighing and detection of early signs of illness.

Expectant Mothers should be induced to come to the Ante-natal Clinic for the regular examination of urine, blood for Wasserman or other tests, state of health, pelvic measurements and other conditions of the mother and child. Besides arrangements should be made for the visit of the Lady Health Assistants and the Lady Health Visitors to the homes of the expectant and confined mothers who are unable for one reason or another to attend the Clinic.

As stated in my last year's Annual Report, the Corporation was pleased to sanction Rs. 6,000 for this year also for the free supply of Milk to the needy infants, children and mothers attending the Infant Welfare Centre at the Kingsley and the Forest Road Corporation Dispensaries.



Though of the thousands of infants born in the town during the year only a bare fraction of them receive this much-needed free supply of milk, there is no doubt of the fact that what few children who have been the recipients of this boon and have come under our observation have been immensely benefited and any amount of money spent towards this end will fail not to confer a great boon on the half-starved, ill-fed, ill-nourished, puny babies of the great mass of the mothers hardpressed with extreme poverty and utter helpless state of their living conditions.

I would strongly urge the Corporation the very great need there is for such milk depots to be established in every circle of the town.

Under the re-organisation scheme of 1928, the Corporation had approved of the appointment of two fully qualified lady doctors as Lady Health Assistants and these Lady Health Assistants have been appointed to look after the outdoor dispensary attendance for women and children in the mornings and supervise the work of the infant milk depots and of the Lady Health Visitors besides devoting their afternoons in ante-natal and post-natal work.

The following statements will give a fair idea of the amount and nature of the work carried out by the Lady Health Assistants and the Lady Health Visitors during the year under report.

*Statement showing the No. of Infants who attended the Clinics and the No. of Mothers provided with milk during the year 1930 at both the Corporation Clinics.*

		Infants attended the Clinics.	Mothers provided with Milk
Theinbyu Clinic	...	17,672	3,071
Forest Road Clinic	...	4,370	3,737
Total	...	22,042	6,808

*Statement showing work done by the Lady Health Assistants during the year 1930.*

Months.	No. of confinements attended.	No. of visits paid for Ante-natal work.	No. of visits paid for Post-natal work.	No. of cases sent to Dufferin Hospital or to Maternity Shelters.	No. of lectures given.	No. of women and children treated at the dispensaries.
January	1	73	152	8	8	420
February	...	168	278	26	15	448
March	...	35	208	20	8	362
April	...	32	253	39	10	415
May	...	...	...	21	7	240
June	...	...	...	30	4	316
July	...	...	...	40	7	676
August	...	15	95	18	...	652
September	...	71	358	57	5	2,353
October	...	87	300	67	...	3,507
November	...	47	234	55	4	4,241
December	...	52	208	53	...	4,876
Total	1	580	2,086	434	63	18,506



*Statement showing the work done by the Lady Health Visitors and Nurse-Midwives during the year 1930.*

Months.	No. of confinements attended.	No. of visits paid for Ante-natal work.	No. of visits paid for Post-natal work.	No. of cases sent to Dufferin Hospital or to Maternity Shelters.	No. of unregistered births detected during inspection.
January	23	461	1,534	51	65
February	19	419	1,104	36	34
March	22	268	1,216	26	37
April	19	218	639	12	22
May	17	293	601	14	17
June	20	269	528	16	13
July	17	164	190	...	2
August	17	204	764	16	12
September	16	305	954	49	34
October	16	281	879	26	41
November	17	219	833	24	32
December	16	236	748	36	34
Total	219	3,337	10,041	306	343

With the advent of the new rule restricting attendance at confinement cases to fully qualified Midwives only and registered under the Burma Nurses & Midwives Act, within the notified area, our efforts in this direction will have to be amplified in many other ways. From what I have seen of the work of these various centres and clinics, it is not possible to attend with any degree of thoroughness or efficiency for the two Lady Health Assistants to these three different kinds of work, viz. the outdoor dispensary for women and children, infant milk depot and welfare centre and thirdly the ante-natal and post-natal clinics.

Under Public Health Department Notification No. 119, the Local Government were pleased to extend the provisions of section 8 (2) of the Burma Nurses and Midwives Amendment Act 1927 to a certain area in the town within the limits of which no person who is not a registered Midwife shall practice as a Midwife or practice midwifery. This is known as the prohibited area and the penalty imposed under the Act is a fine of Rs. 250/- or six months' rigorous imprisonment. This rule I believe is the first of its kind in any City in India and it came into operation during the latter part of the year under report.

In order to meet the needs of the indigent persons living within the said prohibited area who cannot afford to engage the services of a qualified midwife or would not go to any hospital or shelter provided for the poor on grounds of religious or caste scruples or for some other valid reason, it was left



to the Corporation to make the necessary arrangements for the provision of sufficient medical aid and qualified midwives for this purpose.

Three fully qualified Nurse Midwives were therefore appointed during the year and along with the one that was appointed in the year 1929 for the Theinbyu Circle, these four Nurse-Midwives were posted at the respective Registration Stations within the prohibited area to attend to the needs of the indigent persons claiming their assistance free of any cost.

Their duties mainly consist in going round their respective divisions and come in touch with all expectant mothers and they attend to every case of confinement of the poor when called upon to do so in their homes whenever for some reason or other the patient could not be induced to go to the Dufferin Hospital or any of the Maternity Shelters nearest their home.

As I have stated before, with the advent of this rule prohibiting the attendance of unqualified midwives in cases of confinement within the notified area, the work of supervision of these newly appointed midwives has naturally fallen on the two Lady Health Assistants who would be called upon to help the Nurse-Midwives whenever required in case of protracted or abnormal labour.

I would therefore suggest that the work of the Infant and Maternity Welfare Centres should be entirely divorced from the existing free outdoor dispensaries of the poor and the two Lady Health Assistants should be relieved of this part of their morning work so that they may be able to devote the whole of their time untrammelled by any other duties to their legitimate sphere of work concerned purely and solely with the Maternity and Infant Welfare Clinics. For outdoor attendance at the dispensaries for women and children, I would recommend appointment of two Lady Sub-Assistant Surgeons on the same grade and scale of pay that is granted to the Medical Registrars.

### **Cholera.**

34 cases of Cholera with 22 deaths were reported during the year. The corresponding figures for the previous year were 90 cases and 61 deaths. Of the total number of cases reported, 6 (amongst which 4 deaths occurred) were ascertained to have been imported. The disease was at its height in May.

24 cases including 1 case of the previous year were treated in the Contagious Diseases Hospital of which 12 died, giving a case mortality rate of 50·00. 11 cases were treated at home of which 10 died, giving a case mortality rate of 90·90 per cent. The death-rate per 1,000 population was 0·06 and the average for the past five years is 0·25.

### **Small-pox.**

52 cases of Small-pox were reported during the year 1930 of which 14 were



ascertained to have been imported. The number of deaths recorded was 15 giving a case mortality rate of 28·85 per cent.

In 1929 the total number of cases recorded was 51 with 13 deaths.

The death-rate per 1,000 population was 0·04 and the average for the past five years is 0·73.

Of the total number of deaths, 2 occurred amongst the cases in which vaccination scars were visible, 4 deaths amongst the cases said to have been vaccinated in infancy but in which no scars were visible and 9 amongst the unvaccinated.

3 unvaccinated children under the age of five were attacked with Small-pox and all three recovered.

The disease was at its height in the months of March and June and the total number of cases reported during these 2 months was 13 and 9 respectively.

41 cases, including 1 of the previous year, were treated in the Contagious Diseases Hospital of which 6 died, giving a case mortality rate of 14·63. 12 cases were treated in their homes of which 9 died, giving a case mortality rate of 75·00.

The following table gives the number of Small-pox cases reported during the year month by month :—

1930.	No. of cases reported.
January	6
February	8
March	13
April	3
May	7
June	9
July	4
August	1
September	...
October	...
November	1
December	...
Total	52



The following table shows the number of vaccinations performed during the year 1930 :—

		Vaccinations performed by Corporation staff.	Vaccinations performed by Private Medical Practitioners and Contagious Diseases Hospital Staff.	Vaccination performed in the Rangoon Jail by the Jail Staff.	Vaccinations performed at the Port Health Station on arrival of vessels.	Grand Total.
January	1930	3,894	243	337	16,736	21,210
February	...	5,049	223	294	17,142	22,708
March	...	6,655	225	402	12,578	19,860
April	...	1,575	268	399	13,764	16,006
May	...	648	99	353	12,771	13,871
June	...	1,081	23	269	9,002	10,375
July	...	2,643	89	278	7,772	10,782
August	...	1,011	84	293	9,057	10,445
September	...	1,367	82	260	13,717	15,426
October	...	829	89	184	18,112	19,214
November	...	1,102	154	198	25,124	26,578
December	...	1,438	273	187	27,190	29,088
		27,292	1,852	3,454	1,82,965	2,15,563

Vaccinal Condition of cases of Small-pox at the Contagious Diseases Hospital during 1930.

Ages.	A.		B.		C.		D.		E.		F.	
	Vaccinated as evidenced by the presence of one or more Vaccination cicatrices.		Stated to have been successfully vaccinated but no vaccination cicatrix present.		Stated to be unvaccinated or vaccinated unsuccessfully and no vaccination cicatrix present.		Previously unvaccinated but vaccinated during incubation of Small-pox.		Stated to have been successfully re-vaccinated.		Unvaccinated but had a previous attack of Small-pox.	
	Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		Deaths.	
Under one year	...	...	...	...	1	...	...	...	...	...	...	...
1 year	...	...	...	...	...	...	...	...	...	...	...	...
2 "	...	...	...	...	...	...	...	...	...	...	...	...
3 "	...	...	...	...	...	...	...	...	...	...	...	...
4 "	...	...	...	...	3	...	...	...	...	...	...	...
5 "	...	...	...	...	...	...	...	...	...	...	...	...
6 "	...	...	...	...	...	...	...	...	...	...	...	...
7 "	...	...	...	...	...	...	...	...	...	...	...	...
8 "	...	...	...	...	1	(1)	...	...	...	...	...	...
9 "	...	...	...	...	...	...	...	...	...	...	...	...
10 "	...	...	...	...	...	...	...	...	...	...	...	...
11 "	...	...	...	...	...	...	...	...	...	...	...	...
12 "	...	...	...	...	1	...	...	...	...	...	...	...
13 "	...	...	...	...	...	...	...	...	...	...	...	...
14 "	...	...	...	...	1	...	...	...	...	...	...	...
15 "	...	...	...	...	...	...	...	...	...	...	...	...
16-20 "	5	(1)	...	...	1	...	...	...	...	...	...	...
21-25 "	10	...	...	...	2	(1)	...	...	...	...	...	...
26-30 "	10	...	...	...	2	(2)	...	...	1	...	...	...
31-35 "	3	(1)	...	...	...	...	...	...	...	...	...	...
36-40 "	...	...	...	...	...	...	...	...	...	...	...	...
41-50 "	1	...	...	...	...	...	...	...	...	...	...	...
51-60 "	...	...	...	...	...	...	...	...	...	...	...	...
61-70 "	...	...	...	...	...	...	...	...	...	...	...	...
71-80 "	...	...	...	...	...	...	...	...	...	...	...	...
81 & upwards.	...	...	...	...	...	...	...	...	...	...	...	...
Total	29	(2)	...	...	12	(4)	...	...	1	...	...	...

( ) Shows deaths under each age period.



**Measles.**

177 cases of Measles were reported during the year and there were 2 deaths giving a death-rate of 0·006 per 1,000 of population. In the year 1929 there were 52 cases and 1 death with the death-rate of 0·003.

The average for the past five years is 0·01.

**Chicken-pox.**

453 cases of Chicken-pox were reported during the year and there were no deaths as compared with 370 cases and no deaths in the previous year.

**Plague.**

During the year, 43 cases of Plague with 38 deaths were recorded, giving a case mortality rate of 88·37 as compared with 104 cases with 94 deaths in the preceding year giving a case mortality rate of 90·38. Of the 43 cases reported 30 were males and 13 females. The death-rate per 1,000 of population for the year was 0·11 and the average for the past five years is 0·81.

The disease was at its height in the months of February and September.

The age period most affected was between 21 and 30 years and the Hindu Community suffered more heavily than the other Communities in the City.

18 cases were treated in the Contagious Diseases Hospital and of these 14 died, giving a case mortality rate of 77·78. 25 cases were treated in their homes of whom 24 died, giving a case mortality rate of 96·00.

Of the total number of cases, 5 were ascertained to have been imported and 3 or 60 per cent of the imported cases died.

The Statement below gives an account of the rats caught and examined at the Corporation Laboratory and the number of Plague seizures and deaths in 1930.

Months.	No. of rats caught.	No. of rats examined.	No. of rats found infected.	Percentage of infection.	No. of Plague Seizures.	No. of Plague Deaths.
January	55,722	3,177	...	...	3	2
February	49,773	2,912	7	0·24	7	6
March	53,688	2,894	6	0·20	5	5
April	52,848	3,070	6	0·19	4	4
May	46,962	2,420	4	0·16	3	3
June	30,330	1,735	2	0·12	1	1
July	48,789	3,149	9	0·28	4	4
August	47,732	2,961	5	0·17	3	3
September	43,418	3,202	7	0·22	10	9
October	44,981	2,763	1	0·04	1	1
November	46,702	2,703	2	0·07	1	...
December	46,545	2,971	1	0·03	1	...
Total	5,67,490	33,957	60	0·15	43	38



The following Table gives the species of rats found infected in the City of Rangoon during the year 1930 according to Circles.

Circles.	Mice.	Ganamas. Bengal- ensis.	Rat. Rattus.	Rat. Concolor.	Total.
Newly Added Area ...	...	...	...	...	...
North Kemmendine ...	2	...	...	3	5
South Kemmendine ...	1	...	...	3	4
Lanmadaw ...	1	...	...	1	2
Taroktan ...	...	...	...	3	3
North-West Town ...	1	...	...	...	1
South-West Town ...	...	...	...	1	1
North-East Town ...	...	1	...	8	9
South-East Town ...	...	...	...	6	6
Botataung ...	1	...	2	7	10
Yegyaw ...	...	...	...	...	...
Theinbyu ...	...	...	...	1	1
Tamwe ...	...	1	...	...	1
Dalla ...	1	...	...	1	2
Kanaungto ...	...	...	...	...	...
Total ...	7	2	2	34	45 + *5 *Sent by Public whose species unknown.

**Inoculation.**—During the year under review 262 persons were inoculated by the Medical Officers of the Health Department.

**Disinfection and Cleaning.**—847 houses were disinfected by the Health Department staff.

9,266 houses and house-sites were cleaned. The houses in the poor quarters of the City were as usual cleaned free of charge.

**Destruction of Rats.**—5,67,490 rats were destroyed during the year of which 33,957 were examined at the Corporation Laboratory and 50 were



reported to be Plague infected. The corresponding figures for 1929 were 6,79,699 destroyed, 38,060 examined and 133 found infected.

The four temporary gangs of coolies employed for ratting and site-cleaning were made permanent during the year thus making the total strength of 22 gangs.

The following Table gives the number of inoculations performed, houses and house-sites cleaned, houses disinfected, rats destroyed and number of Plague deaths for the past ten years :—

Year.	Inoculations.	Houses and house-sites cleaned.	Houses disinfected.	Rats destroyed.	Plague deaths.
1920 ...	5,036	8,045	1,354	3,45,750	1,127
1921 ...	4,495	5,532	1,594	4,05,178	1,126
1922 ...	5,561	7,233	2,111	4,08,785	1,402
1923 ...	5,572	14,797	2,158	4,96,987	1,159
1924 ...	2,018	36,237	1,285	6,30,907	505
1925 ...	1,017	32,802	2,935	6,04,250	620
1926 ...	605	28,747	1,738	6,69,184	257
1927 ...	162	40,010	1,733	8,64,962	168
1928 ...	338	32,527	5,140	8,61,827	257
1929 ...	292	11,973	1,096	6,79,699	94
1930 ...	262	9,266	847	5,67,490	38

From the above statement it will be seen that the total number of rats caught and the number of house-sites cleaned during the past year was much less than those of the previous year. This was mainly due to the disbandment and abolition of four of the eight temporary ratting gangs in the year 1929 when I was on leave. Since the year 1924, eight extra ratting gangs were sanctioned by the Corporation on my recommendation with a view to carry on an intensive campaign against rats, the main cause of the spread of Plague in human beings, with the extremely happy result shown in the statement above, viz. that the incidence of Plague has been brought down to a vanishing point.

### Enteric Fever.

105 cases with 74 deaths were reported during the year under review as compared with 142 cases with 72 deaths in the previous year.



The number of deaths recorded during the previous five years is given below :—

1925	...	...	...	...	...	44
1926	...	...	...	...	...	78
1927	...	...	...	...	...	74
1928	...	...	...	...	...	68
1929	...	...	...	...	...	72

The death-rate per 1,000 population for the year was 0·21 and the average for the previous five years is 0·20.

### **Cerebro-Spinal Fever.**

5 cases with 5 deaths from this disease were recorded as compared with 8 cases with 8 deaths in the previous year.

2 deaths were registered in Hospitals and Other Public Institutions.

The death-rate per 1,000 population for the year was 0·01 and the average for the past five years is 0·03.

### **Diphtheria.**

33 cases of Diphtheria with 8 deaths were reported during the year as compared with 25 cases and 4 deaths in the previous year.

The death-rate for the year was 0·02 and the average for past five years is 0·02.

### **Puerperal Septicaemia.**

31 cases of Puerperal Septicaemia with 31 deaths were recorded during the year as compared with 32 cases and 31 deaths in the previous year. The death-rate per 1,000 population was 0·09 and the average for the past five years is 0·08.

### **Malarial Fever.**

During the year 132 deaths were registered as compared with 172 deaths in the preceding year, giving a death-rate of 0·38. The average for the last five years is 0·62.

### **Influenza.**

13 deaths from Influenza were reported during the year as compared with 15 deaths in the previous year.



The death-rate per 1,000 population for the year was 0·04 and the average for the past five years is 0·11

A statement showing Influenza deaths by races and months is given below :—

Months.	Euro- peans.	Anglo- Indians.	Hindus.	Moham- medans.	Burm- ese.	Chinese.	Other classes.	Total.
January	...	...	...	...	...	...	...	...
February	...	...	1	...	...	...	...	1
March	...	...	1	...	...	...	1	2
April	...	...	1	...	...	...	...	1
May	...	...	...	...	...	...	...	...
June	...	...	...	1	...	4	...	5
July	...	1	1	1	...	...	...	3
August	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...
October	...	...	1	...	...	...	...	1
November	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...
Total	...	1	1	4	2	...	4	13

### Diarrhoea & Dysentery.

Diarrhoea and Dysentery accounted for 727 deaths as compared with 915 deaths in 1929. Of these, 135 were reported from Hospitals and other Public Institutions. The death-rate per mille of population was 2·11, the average for the last five years being 3·34.

### Tuberculosis.

761 deaths from Tuberculosis were reported, giving a death-rate of 2·20 per mille as compared with 852 deaths and a death-rate of 2·47 in the previous year. Of these, 709 deaths were recorded as Phthisis. Of the 761 who died of this disease, 519 were males and 242 females, giving a death-rate of 2·17 and 2·27 respectively. The highest number of deaths were recorded from North Kemmendine, South Kemmendine and Botataung.

250 deaths were recorded in Hospitals and Other Public Institutions.



The following statement gives the death-rate on census population for Tuberculosis according to sex for the past five years:—

Year.		Male. Death-rate	Female. Death-rate.
1925	...	3.35	4.21
1926	...	3.21	3.61
1927	...	2.77	2.83
1928	...	2.27	2.37
1929	...	2.41	2.58

The deaths and death-rate amongst the various Communities were as follows :—

		Deaths.	Death-rate.
Hindus	...	281	2.24
Mohammedans and Malays		133	2.14
Buddhists	...	289	2.52
Christians	..	45	1.77
Other Classes	...	13	0.71

The following statement gives the number of deaths from Tubercle of lungs and Respiratory Diseases with their death-rate per 1,000 of the population for the past ten years :—

Year.		Tubercle of Lungs		Respiratory Diseases.	
		Total No. of deaths.	Death-rate per 1,000 of population.	Total No. of deaths.	Death-rate per 1,000 of population.
1920	...	801	2.73	2,157	7.35
1921	...	856	2.50	2,241	6.55
1922	...	994	2.91	2,198	6.43
1923	...	887	2.59	2,131	6.23
1924	...	975	2.82	2,287	6.62
1925	...	1,188	3.44	2,344	6.78
1926	...	1,093	3.16	2,585	7.48
1927	...	902	2.61	2,476	7.17
1928	...	747	2.16	2,642	7.65
1929	...	804	2.33	2,329	6.74
1930	...	709	2.05	1,967	5.69



The Corporation has decided to open a Clinic for treatment of tuberculosis cases. Arrangements are being made for selection of a suitable site for the purpose.

### Respiratory Diseases (Excluding Phthisis).

1,967 deaths were registered from this disease as compared with 2,329 deaths in the previous year. Of these, 259 deaths were recorded in Hospitals and other Public Institutions. The death-rate per 1,000 population was 5.69 as compared with 6.74 in the previous year, the mean ratio for the past five years being 7.16.

### Cancer.

35 deaths from Cancer were recorded during the year giving a death-rate of 0.10 per 1,000 of population as compared with 46 deaths with a death-rate of 0.13 in the previous year.

A statement showing these deaths according to Races and parts of the body affected is given below :—

Parts of the body affected.	Hindus.	Moham-medans.	Burmese.	Chinese.	Euro-peans.	Anglo-Indians.	Other Classes.	Total.
Neck	...	...	...	1	...	1	...	2
Mouth	1	1	1	...	...	...	...	3
Tongue	1	...	2	...	...	...	...	3
Throat	1	...	...	...	1	...	...	2
Breast	...	...	...	1	...	...	...	1
Stomach	...	...	...	1	...	...	...	1
Liver	1	1	4	...	...	...	...	6
Pylorus	...	...	1	...	...	...	...	1
Cervix	2	...	3	...	...	...	...	5
Rectum	1	...	2	...	...	...	...	3
Uterus	1	...	2	...	...	...	...	3
Scrotum	...	...	1	...	...	...	...	1
Kidney	...	1	...	...	...	...	...	1
Parts not known	...	...	2	...	1	...	...	3
<b>Total</b>	<b>8</b>	<b>3</b>	<b>18</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>...</b>	<b>35</b>



### Beri-Beri.

73 deaths were registered as compared with 128 deaths in the previous year. Of these, 51 deaths were reported from Hospitals and Other Public Institutions.

The death-rate per 1,000 population for the year was 0·21 and the average for the past five years is 0·25.

There was no death from Epidemic Dropsy.

Following the Local Government's Notification declaring Beri-Beri, including Epidemic Dropsy to be a notifiable disease, the Corporation in January 1930 included it in the list of diseases declared to be dangerous by the Corporation.

The following table gives the death and death-rate for the various races :—

Race.	Number of deaths.			Death-rate.
	Male	Female	Total	
Hindus ...	45	7	52	0·41
Mohammedans and Malays ...	9	...	9	0·14
Buddhists ...	4	1	5	0·04
Christians ...	4	2	6	0·24
Other Classes ...	1	...	1	0·06
Total ...	63	10	73	0·21

### Kala-Azar.

There were two deaths from Kala-Azar as compared with 1 death in the previous year. The death-rate was 0·003. Both of them were reported from the Rangoon General Hospital.

Date of death.	Name.	Sex.	Age.	Occupation.	Race.	Residence at the time of death.	Residence previous to last illness.	Cause of death.
24-2-30	M. M. Dutt ...	Male	35 years	Clerk	Hindu	Rangoon General Hospital.	Port Commissioners, Rangoon.	Kala-Azar.
12-6-30	Lazeroo ...	Male	15 years	...	Indian Christian	Rangoon General Hospital.	38, Surty Garden.	Kala-Azar



Comparative mortality from principal causes during 1929—30 and the last decennium.

Cause of Death.	1929.		1930.		Average for 10 years.	
	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.
Plague	94	0·27	38	0·11	671	1·94
Cholera	61	0·18	22	0·06	105	0·31
Small-pox	13	0·04	15	0·04	194	0·56
Influenza	15	0·05	13	0·04	169	0·48
Enteric	72	0·21	74	0·21	56	0·16
Malaria	172	0·50	132	0·38	284	0·82
Tuberculosis	852	2·47	761	2·20	987	2·86
Diseases of the Respiratory system.	2,329	6·74	1,967	5·69	2,339	6·77
Diarrhoea and Dysentery.	915	2·65	727	2·11	1,052	3·04
Beri-Beri	128	0·37	73	0·21	98	0·28
Puerperal Septicæmia.	31	0·09	31	0·09	27	0·08



## Contagious Diseases and Observation Hospitals.

The reports on the working of the above Hospitals for the year 1930 are appended hereto.

The following Table gives a summary of work done at the Contagious Diseases Hospital during the year 1930 :—

Diseases		Patients remaining in hospital on 31st December 1929.	Number of patients admitted during the year 1930.	Total number treated.	Discharged cured.	Died.	Case mortality per cent.	Patients remaining in hospital on 31st December 1930.
Plague	...	...	18	18	3	14	77.77	1
Cholera	...	1	23	24	12	12	50.00	...
Small-pox	...	1	40	41	35	6	14.63	...
Chicken-pox	...	5	404	409	406	...	...	3
Measles	...	1	111	112	97	2	1.79	13
Mumps	...	6	42	48	48	...	...	...
Diphtheria	...	...	14	14	10	3	21.43	1
Erysipelas	...	...	13	13	10	1	7.69	2
Influenza	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis	...	...	2	2	...	2	100.00	...
Diarrhoea	...	...	4	4	3	1	25.00	...
Adenitis	...	...	6	6	6	...	...	...
All other diseases	...	3	155	158	129	28	17.72	1
Grand Total	...	17	832	849	759	69	8.13	21



## Medical Relief.

The four Corporation Dispensaries were open throughout the year to give free Medical relief to the sick poor.

Statement below gives the number of patients treated at these Dispensaries :—

Names of Dispensaries.	No. of patients attended.				No. of new cases attended during the year.	Total number of patients attended in		Daily average attendance in	
	Adults.		Children.			1930.	1929.	1930.	1929.
	Male.	Female.	Male.	Female.					
Dalla Dispensary	13,816	3,412	2,857	1,707	13,661	21,786	22,905	59·69	62·75
Merlin Kingsley Memorial Dispensary.	33,849	15,309	9,348	8,170	24,576	66,676	57,896	183·00	159·00
Forest Road Dispensary.	27,896	10,754	6,741	5,201	18,621	50,592	44,885	138·00	123·00
Kanaungto Dispensary.	15,878	4,472	2,131	1,938	12,717	24,419	20,450	67·00	56·00
Grand Total ...	91,439	33,947	21,077	17,016	69,575	1,63,473	1,46,136	447·87	400·37

Majority of the patients attending the above dispensaries belong to the poor working class in general.

The Building for a Dispensary for women and children at Kyundaw Quarter, Kemmendine, was not completed till the end of the year.

### Medical Examination of Rickshaw pullers.

The following is a statement of work done by the Medical Officer for the examination of Rickshaw-Pullers and Attendance to Municipal Staff:—

Number of Pullers examined	...	...	...	8,678	of which 418 were old licensees and 8,260 were new licensees.
Number of Pullers found fit by the Medical Officer	...	...	...	6,817	of which 402 were old licensees and 6,415 were new licensees.
Number of Pullers found unfit	...	...	...	1,861	of which 16 were old licensees and 1,845 were new licensees.
Number of pullers medically fit and licensed by Hackney Carriage Department	...	...	...	5,416	
Number of Pullers medically fit but rejected by Hackney Carriage Department for ignorance of Police and Traffic Regulations	...	...	...	1,401	



Of the rejected the following defects were noted :—

				Old Pullers.	New Pullers.	Total.
Under Age	...	...	...	Nil	949	949
Heart Disease	...	...	...	1	224	225
General Debility	...	...	...	15	572	587
T. B. Lungs	...	...	...	Nil	58	58
Defective Vision	...	...	...	Nil	15	15
Deformity	...	...	...	Nil	10	10
Varicose Veins	...	...	...	Nil	10	10
Spleen Enlarged	...	...	...	Nil	3	3
Hernia	...	...	...	Nil	1	1
Hydrocele	...	...	...	Nil	3	3
Grand Total				16	1,845	1,861

Medical attendance to the Staff of :—

(a) Fire Brigade.

1. Central Station	596 cases of which 31 Injuries, 2 chicken-pox
2. Lanmadaw Station	49 " 1 Injury, 1 Small-pox 1 Chicken-pox.
3. Fire Float	42 " Nil
(b) Motor Transport Department	426 " 34 Injuries.
(c) Yegu Pumping Station	97 " 3 "
(d) Compressor Station	198 " 16 "
(e) Water & Sewerage Department	39 " Nil "
(f) Scott Market.	226 " 2 Injuries, 4 Chicken-pox.
(g) Ejector & Sewerage Department	4 " 1 Injury.
(h) Waste Water Department	8 " Nil
(i) Kokine High Level Reservoir	1 " Nil
(j) Cart Department.	2 " Nil

**Markets.**

Markets were, as usual, regularly inspected by the Assistant Health Officers and steps were taken to keep them in a sanitary condition.

A whole time Sanitary Inspector continued to be in charge of the cleanliness and sanitation of the Scott Market throughout the year.

**Ambulances.**

The following Table gives an account of the work done by the Ambulance Cars during the year 1930:—

	No. of trips.	No. of patients.
1. Observation cases	457	1,362
2. Infectious cases	551	1,471



### **Laboratory.**

This subject is dealt with in the report of the Analyst which is printed as a supplement to this report.

### **Jerked Meat.**

The Port Authorities continued to report the arrival of all consignments of Jerked Meat to the Corporation Health Officer.

75 inspections were made by the Food Inspectors and 8,921 bundles of such meat were inspected by them before delivery.

### **Unwholesome Foodstuff Destroyed.**

The statement of articles of unwholesome food and drink destroyed during the year 1930 is given at pages 146 and 147.

### **Ghee Samples.**

59 samples of ghee were taken under the Ghee Act. 3 samples were reported to be adulterated by the Chemical Examiner to the Government of Burma. In one case, no action was taken as the party sold it as "grease and oil mixture."

The remaining 2 cases were sent up for prosecution and are pending in Court.

The present Ghee Act has been found to be very defective in many respects and I have dealt with this subject at some length in my Annual Report for the year 1923 to which I would invite reference for fuller details.

Since this Act has come into force, some of the big merchants and traders in this commodity have ceased to deal with adulterated stuff but there exists a very large number of dealers and shops who are selling Grease and Oil Mixture all over the town with impunity and cheat the general public by selling spurious stuff under various names according to the intelligence of the customer they have to deal with. To circumvent the clutches of the law, most of them now keep a small signboard hanging in one of the most unpromiscuous corner of the shop painted with the words "grease and oil mixture sold here" and some are now boldly importing consignments of adulterated ghee under the name of grease and oil mixture. Thus they have succeeded in nullifying the requirements of the law and escape prosecution.

I had made certain suggestions in my report referred to above for the amendment of the Ghee Act and they were approved by the Corporation and a letter was addressed to the Local Government for some amendment of the Act but so far nothing has been done.

### **Eating Houses & Tea Shops.**

During the year under report 16,151 inspections were made by the Food Inspectors and 1,801 licenses were issued for places where articles of food and



drinks are manufactured, stored or exposed for sale. One license was cancelled for breach of rules. Instructions have been issued to the Food Inspectors to make periodical inspections of the conditions under which eatables are sold near Schools.

### **Wash House.**

The total number of tanks at the Dhoby Wash House is 534. The approximate number of dhobies using them daily is 600. Out of these tanks, 36 covered tanks are engaged by several Pinmen and a few others.

### **Burial Grounds.**

All the Burial Grounds were regularly visited and burial passes collected and checked.

At the instance of the Rangoon Development Trust, the Corporation in July last agreed to take over a piece of land known as holding No. 7 in Survey Block No. 70 measuring 6'38" of an acre at present used as a burial ground by the inhabitants of Sinmalaik Village, Kemmendine. The land has been vested in the Corporation and is being maintained as a burial ground.

An area of land measuring 3'535 acres is being acquired for extending the burial ground for Burmese and other non-Mohamedan Communities at Kanaungto.

### **Hides.**

The Corporation Hide godowns in the Neikban quarter are being used for hide trade and no new licenses are issued for this business in the originally restricted Lanmadaw area of the Town.

### **Extension of Municipal Water Supply.**

- (a) Providing 6" block main in Creek Street between Dalhousie and Montgomery Streets.
- (b) Laying new block mains in 122nd, 123rd, 124th and 125th Streets between Bow Lane and Evanson Street.
- (c) Water equipment to block L. 6" mains and Fire Hydrants in Dufferin Street, 61st, 62nd and 63rd Streets between Merchant Street and Strand Road.

### **Extension of Sewage System.**

- (a) Providing 9" gravitating sewer in Monkey Point Road between Creek and Judah Ezekiel Streets.
- (b) Laying a 6" gravitating sewer along the western boundary of the Scott Market to connect with the sewer in Montgomery Street.



## Registered Buildings.

The following statement gives the total number of Registered Buildings in

1	2	3	4			5		
Divisions.	No. of Registered Buildings struck off the Register in 1930.	No. Registered in 1930.	No. of Registered Buildings on 31-12-1929.			No. of persons allowed to live.		
			Lodging houses.	Mill Cooly barracks	Total.	Lodging houses.	Mill Cooly barracks.	Total.
East Suburban } area	...	...	179	123	300	5,613	14,568	20,210
East Town (1)	10	9	413	...	413	18,547	...	18,547
East Town (2)	5	26	258	24	282	12,620	5,780	18,380
West Town (1)	2	12	393	...	393	21,507	...	21,507
West Town (2)	1	8	402	...	402	16,052	...	16,052
West Suburban } area	1	4	125	129	254	2,476	12,807	15,283
Total ...	19	59	1,770	276	2,044	76,825	33,155	1,09,979



the City and the number inspected for overcrowding, etc :—

6	7	8	9	10	11	12	13	14
No. of Registered Buildings inspected during the year 1930.	Percentage of inspection to the total No. of buildings registered.	No. of houses inspected more than once during the year 1930.	No. exempted from the operation of Rule re: 36 Sq. ft. floor space.	No. of individual rooms in which overcrowding was found during the year.	No. of individual rooms of Registered Buildings in which no excess was found.	No. of R.B. cases sent up for prosecution during the year 1930.	Total No. of R.B. prosecutions tried during the year 1930.	Amount of fines imposed with Costs.
83	27'48	...	....	89	84	158		
466	122'83	136	...	683	1,020	664		
315	111'70	87	....	161	644	201		
229	58'27	78	....	195	769	220		
447	110'92	112	....	482	967	447		
28	11'02	2	....	13	71	23		
1,568	76'60	415	....	1,623	3,555	1,747	1,999	Rs. 11,349



The following statement gives the number of Mills, Factories and Workshops, etc., in the City of Rangoon and the accommodation provided for labourers therein by the Owners thereof :—

Description of Mills, Factories, etc.	Total No.	No. of persons employed.	No. of persons for whom accommodation is provided.	No. of barracks.
Rice Mill ... ..	49	8,693	7,861	172
Saw Mill .... ..	31	6,322	4,701	47
Workshop .... ..	30	3,560	929	16
Dockyard ... ..	3	550	2,200	20
Ice and Aerated Water Factory .... ..	10	411	77	6
Miscellaneous Trades ....	64	6,091	1,805	50
Total ....	187	28,627	17,573	311

### Registered Buildings and Overcrowding.

The following statement gives figures of the total number of night inspections made, the number of prosecution cases tried and the amount of fine imposed for overcrowding for the past seven years :—

Year.	No. of Inspections.	No. of cases tried.	Fine Imposed.
			Rs.
1924 ...	1,745	895	6,530
1925 ...	1,568	1,288	10,367
1926 ...	1,366	1,088	9,957
1927 ...	1,032	1,472	16,232
1928 ...	1,428	1,842	18,372
1929 ...	1,786	2,371	17,441
1930 ...	1,568	1,999	11,349



There is no other City in the East or West, I believe, where such a rigorous action is taken against overcrowding in the absence of adequate housing accommodation as in this City and yet arguments have been seriously put forward against the Health Department of this Corporation for not enforcing the rules framed for registered buildings against overcrowding and for not instituting a more rigorous campaign against the worse affected areas and force a crisis, the idea being that this action would not add to human distress but would force thereby many of the excess numbers to return to their homes in India.

If that be their objective then why not stop or limit immigration for some time till proper accommodation is made available. To imagine that rigorous action against overcrowding would drive these people back to their villages in India is to expose one's ignorance of the prevailing conditions of labour in Rangoon. Any more vigorous action by way of prosecutions alone would soon result only in a ruthless campaign of persecution of the hard-worked, half-starved labourer driven from place to place in search for a small place in a sheltered cover to stretch his tired limbs at night.

Humanity above all, demands a better treatment for the poor labourer than what is implicated in the enforcement of lodging house rules alone. When all concerned including the Local Government have failed to do their share of the responsibility lying on their shoulders why put the blame at the door of the Health Department who can only prosecute people for overcrowding and drive them from place to place without in the least ameliorating the condition of overcrowding as the number of houses in the town fall far too short of the population to be accommodated at any time of the year. Rangoon City, as I have said so often before, forms a huge clearing house for labourers coming from and going to all parts of the Province and unless immigration is restricted to the actual number for whom work could be found for all months of the year and until housing accommodation to the proper extent is provided by the joint efforts of all concerned, *viz.*, the Local Government, the Port Commissioners, the Municipal Corporation of Rangoon and the big employers of labour, all attempts to solve this problem of this evil of great overcrowding by means of enforcing lodging house rules alone are doomed to failure.

### **Registration Depots.**

The following are the Registration Depots in the Town :—

Kanaungto.

Dalla.

Kemmendine—59, Kyaungyi Street.

Forest Road—47, Sayamagyi Road, Ahlone.

Lanmadaw—126—15th Street.

Central, West—184—27th Street.

Central, East—147, Barr Street.

Botataung—26, Dalhousie Street.

Pazundaung—37, Evanson Street.

A proposal is under consideration to open another registration station at Tamwe with a dispensary attached to it.



The following statement gives a summary of the work done in the Department during the year 1930:—

No. of Notices issued	...	24,428
No. of cases sent up for prosecution	...	2,598
No. of cases tried	...	2,849
No. of cases withdrawn	...	209
No. of cases pending disposal	...	989
Fines imposed	...	Rs. 15,251-0-0
Cost awarded	...	Rs. 1,712-0-0
No. of complaints received	...	355
No. of inter-departmental reports issued	...	662
No. of cases opened	...	5,205
No. of Licenses issued:—		
Milk	...	65
Ice-cream & Sherbet	...	103
Ice and Aerated Waters	...	22
Dangerous & Offensive Trades	...	1,065
Public Eating Houses & Tea stalls	...	1,301
No. of letters received	...	12,316
No. of letters issued	...	14,099
No. of Indents, statements, bills, etc. issued	...	3,733
No. of houses condemned under section 156	...	5
No. of houses vacated under section 156	...	2
Amount of fees paid for notification of infectious diseases by Private Medical Practitioners		Rs. 206-0-0

#### Revenue received during the year.

		Rs.	A	P
Issue of Licenses for Dangerous and Offensive Trades, etc.	...	7,278	0	0
Issue of Licenses for Public Eating houses and teashops	...	12,275	0	0
Issue of Wash-house tickets	...	16,221	9	0
Lease of Ironing-sheds, etc. at Dhoby Wash-house	...	1,920	0	0
Issue of extracts of Births & Deaths	...	556	0	0
Rents from Hide Godowns	...	7,119	4	0
Miscellaneous	...	889	11	0
Grand Total	...	46,259	8	0

The following statement shows the work done by Lady Health Visitors and Vaccinators during the year 1930 :—

No. of births verified	...	3,096
No. of unregistered births found	...	1,786
No. of Small-pox cases found during house to house inspection	...	Nil
No. of Notices served for vaccination	...	8,728
No. of prosecutions under Vaccination Act	...	3
No. of Schools inspected for vaccination	...	126
No. of School children inspected	...	20,446
No. of School children vaccinated	...	3,079
No. of Mills inspected for vaccination	...	78
No. of persons inspected	...	9,639
No. of Mill hands vaccinated	...	4,108
No. of primary vaccinations performed	...	8,565
Total No. of vaccinations performed	...	2,13,653



The following Table gives a comparative summary of the work of Vaccination and Sanitary sections for the past 10 years :—

Calendar Year.	Total No. of Vaccinations performed.	No. of Sanitary notices issued.	No. of block-ages cleared.	No. of letters received.	No. of letters issued.	No. of licenses issued.	No. of cases tried.	Amount of fines.	
								Rs.	As.
1921	43,648	10,490	2,995	8,267	10,894	875	1,682	18,322	0
1922	46,711	11,973	3,999	7,981	11,528	919	1,453	10,086	4
1923	65,091	12,076	6,012	7,840	11,093	865	1,396	10,539	0
1924	57,334	13,211	18,240	8,807	11,902	1,057	1,311	8,516	4
1925	1,27,111	15,768	15,364	8,748	13,005	1,246	2,489	15,873	0
1926	85,850	17,038	22,765	9,292	13,076	1,268	2,087	13,689	0
1927	98,195	20,181	22,118	9,362	14,162	1,963	3,325	26,380	8
1928	2,41,774	20,270	24,060	11,372	14,705	2,358	3,710	30,442	8
1929	2,58,374	27,264	30,025	13,483	17,614	2,568	3,581	24,048	8
1930	2,13,653	24,428	31,232	12,316	14,099	2,556	2,849	15,251	0

### Conservancy and Veterinary Departments.

The newly appointed Chief Transport Officer, Mr. M. N. Ray, took over charge of the Conservancy Department from the Health Department on the 10th February 1930.

The Veterinary Department was separated from the Health Department from the 2nd September 1930 and placed under the control of U Shwe Hla Owne, Veterinary Officer.

### Staff.

Dr. K. R. Dalal, L.M. & S., D.T.M., D.P.H., Health Officer, continued to be in charge of the Health Department throughout the year.

Dr. N. S. Kotwall, M.B., B.S., D.T.M., & D.P.H., Assistant Health Officer, and six Sanitary Inspectors, were placed on special duty in connection with the scheme inaugurated by the Director of Public Health, Burma, for a Mosquito Survey of Rangoon, from April to November 1930.

Dr. J. Hormasji, L.R.C. P. & S., D.P.H., Assistant Health Officer, was on leave from the 29th April to 2nd December 1930 and on his return, he was appointed Director, Cleansing Department, and assumed charge of his duties on the 3rd December, 1930.



Assistant Health Officers, Dr. B. P. Srivastava, M.B., B.S., D.P.H., Dr. Sydney Rodriguez, M.B., Ch.B., D.P.H., and Dr. K. P. Pillai, M.B., B.S., D.P.H., continued to be in charge of their respective divisions throughout the year.

Dr. (Miss) G. Hormasji, M.B., was appointed Lady Health Assistant in place of Dr. Miss N. K. Narayani, M.B., resigned, on the 12th August 1930 on probation for one year.

One Nurse-Midwife was entertained from the 16th December 1930 for Kanaungto Circle for a period of one year.

Appointments of three additional Nurse-Midwives were sanctioned by the Corporation to meet the needs of indigent persons within the area where midwifery by unqualified persons is prohibited. These three Nurse-Midwives and the one sanctioned previously for Theinbyu Circle were posted for duty in this area from the 16th December 1930.

Mr. D. M. Gangolli, M.Sc., B.A., Analyst, continued to be in charge of the Laboratory during the year.

The Corporation in January 1930 decided to abolish the four appointments of Sanitary Supervisors as each of the present incumbents retired. Two appointments were abolished during the year owing to the death of Mr. L. F. Kenny and retirement of Mr. M. J. Murray.

### Concluding Remarks.

The year under report will long remain in the memory of the citizens for the two most unfortunate events that marred the peace and equanimity of this the premier City of the Province of Burma.

A very severe earthquake shock was experienced on the night of the 5th of May of this year resulting in some loss of life and severe and serious damage to property. This was followed by an outbreak of riot of an extremely bad character on the early morning of the 26th of the same month between the wharf coolies of the Telugu and the Burmese labour communities which soon spread like wild fire in all other parts of the town and assumed a sort of an inter-communal strife of a most disastrous nature resulting in heavy casualties of the dead and injured.

A very grave situation was created by the complete stoppage of conservancy work both Day and Night during the period of the serious disturbances that had taken place in the City on account of the riot in the last week of that month. During this critical period I was asked to take charge of the Conservancy Department as a temporary measure.

Day after day the household rubbish, market refuse and filth of every description were accumulating and remained unremoved for over a week. Similarly



over 20,800 night-soil tubs in the suburban areas of the town were not conserved during this period. Every effort was made to collect our men and free ration was supplied to all the men including a large number of outside coolies who had taken refuge in various bullock depots and other Corporation quarters during the worse days of the riot and as much protection available was granted to these panic stricken lot. After a great deal of coaxing and persuasion by the Commissioner and Members of the Special Committee appointed by the Corporation and the assurance of safety against any kind of assault or injury given by His Excellency Sir Charles Innes, K.C.S.I., C.I.E., I.C.S., who had so kindly paid a personal visit one evening at the Ahlone Bullock Depot, the men were induced to go to work.

The Night Conservancy work was started under Military Police escort for the first few days of the week and the conservancy of the town was properly resumed from the 3rd June 1930.

In the meantime, every precaution was taken by my staff to cover over all the stagnant mass of putrefying refuse, filth and nightsoil tubs with lime, crude oil and other disinfectant fluids with a view to prevent the breeding of flies and to checkmate as far as possible threatened outbreaks of such dangerous diseases as Cholera, Dysentery and Enteric in an epidemic form which appeared inevitable as the filth was accumulating day after day. Here I should like to place on record my appreciation of the strenuous efforts made and the whole-hearted co-operation given by my Assistant Health Officers, the Veterinary Officer and the whole of my Sanitary staff who were on duty during this whole critical period of the riot.

In spite of such grave disturbances as noted above and the large number of unnatural deaths as the result of the riot, the health of the town for the year under report was remarkably good as will be seen from the great decline in the total number of deaths and the death-rate of the town. The crude death-rate of the town was 27.61 on the Census population of 1921 and 24.40 on the estimated population. This death-rate though crude and uncorrected, compares very favourably with other Cities and I believe it is the lowest on record for our town as far as I have seen the records for the past 30 years, and I think the Corporation along with the Health Department would justly be proud of this achievement as a result of their constant endeavours to improve the health and sanitation of the City.

A good deal of attention during the year under report was centred round the organisation of the Maternity & Child Welfare Centres and the establishment of Tuberculosis and Venereal Clinics.

### Maternity & Child Welfare.

The Maternity & Child Welfare Centres have been well established and the question of housing the same in a separate building is under consideration.



### **Tuberculosis Clinic.**

The Corporation have undertaken to establish an outdoor Tuberculosis Clinic and it has been decided to start one in the recently vacated building of the Lanmadaw Fire Brigade Station. Plans and estimates for converting this building into a Tuberculosis Clinic are under preparation.

### **Venereal Clinic.**

I have already submitted a complete scheme for the establishment of a Venereal Clinic in the City and the Corporation have approached the Government with the request that the Corporation would be pleased to give their contribution towards the establishment of such a clinic.

Venereal disease has come to be recognised as the greatest of modern plagues. They damage the health of both parents and act as a poison on the expected child, many of whom die before or soon after they are born. Next to Tuberculosis, Syphilis is the most potent cause of protracted illness which is directly or indirectly responsible for a large share of the total number of deaths that take place in town. It is a potent cause of still-births and premature live births and a frequent cause of deaths in infancy and early childhood.

Venereal disease is a danger to public health and a menace to the vitality, health and physical progress of the race. Any money spent therefore in the proper treatment and control of these diseases by providing free facilities and centres of the treatment to the suffering public, would be money well spent.

### **Chief Causes of Death.**

Among the chief causes of death Respiratory Diseases and Tuberculosis again come first.

A consideration of the causes of these two formidable diseases bring me back to the question of housing conditions which I have described year after year in some of my Annual and other reports but so far my cry for some reform in our old building bye-laws to eradicate the evil of the sunless houses that are all too prevalent in this City has been a cry in the wilderness.

### **Epidemic diseases.**

As far as epidemic diseases are concerned, the year under review may be considered as one of the healthiest years on record. Deaths from Plague, Cholera and Small-pox accounted for an extremely small share of the total number of deaths for the year.

### **Plague.**

From the Table given at page 16 showing the number of house-sites cleansed, number of rats destroyed and the number of deaths from Plague



for the past 10 years, it will be seen that there has been a steady and rapid fall in the number of plague deaths *pari passu* with the corresponding increase in the number of house sites cleansed and the number of rats destroyed by the Plague gangs employed.

I am happy to state that the incidence of Plague has been brought down practically speaking to the vanishing point in the year under review. It is unfortunate however that four of the eight extra gangs employed for this purpose were disbanded in the year 1929 while I was on leave and this accounts for the heavy fall in the number of rats destroyed during the years 1929 and 1930 as compared with the previous two years.

Apart from the fact of rat being a carrier of human plague, and some other diseases besides, the damage effected by rats is not inconsiderable. It has been estimated that the financial loss caused by rats alone in England comes to over 15 million sterling a year.

One pair of brown rats has nearly 860 descendants in a year and the house rat has over 480. One rat consumes about 80 pounds of bread in a year. Computing on this basis, 860 rats would consume about 30 tons of bread. The large number of rats destroyed in our town year after year has been the means of preventing serious financial losses to various trades and industries in the City. So the extermination of this great nuisance and menace to life and health is a serious problem of social economy also.

### **Medical Relief.**

As stated in the body of the report the total number of the outdoor patients who received free treatment at the four dispensaries maintained by the Corporation was 1,63,473 with a daily average attendance of 447 sick and ailing men, women and children. I have not the least doubt that the marked improvement in the health of the masses as evidenced by the steady decline in the general death-rate is not a little due to the free and early treatment of the sick poor and the relief afforded to them at these dispensaries. The fifth dispensary to be maintained by the Corporation and intended for women and children only is nearing completion and will form one of the most up-to-date buildings of its kind.

For further extension of free medical relief to other parts of the town in compliance with the request of the Committee I have already submitted a scheme for the establishment of free outdoor dispensaries in other parts of the town in their order of urgency and the next site selected is at Tamwe which is under consideration.

### **Supervision of articles of food & drink.**

Since the introduction of the rules framed by me in 1926 for licensing places where articles of food and drink are manufactured or exposed for sale, great improvement has been noted in all such places as tea-stalls, hotels,



restaurants and sweetmeat shops dotted all over the town in such large numbers.

In the reorganisation scheme of 1928, four additional Food Inspectors were sanctioned and since then a closer supervision and more frequent visits of inspection have resulted in ever greater improvement in the clean and wholesome state of the various articles of food and drink sold to the public.

### **Additional Staff under the Reorganisation Scheme.**

In the reorganisation scheme referred to above, the Corporation was pleased to sanction an additional staff on my recommendation and the health department was thus to a great extent enabled to extend its activities in most of its legitimate sphere of work.

The summary of the work done by the Vaccination and the Sanitary section of the department for the past 10 years as given in Table at page 33 gives one a fair idea of the enormous increase in work done by the department since the additional staff was employed under the re-organisation scheme.

During the year under report a slight set-back in the amount of work turned out by the department would be noticed in the Statement referred to and this is accounted for by the fact that one of the Assistant Health Officers and six Sanitary Inspectors were detailed for Special Duty in connection with the Malaria Survey Scheme for a period of eight months.

Tables on pages 144 to 147 giving summary of the unwholesome articles of food and drink destroyed, of the number of inspections carried out in the registered buildings or lodging houses and the amount of work turned out by the department during the year under review would give some idea of the strenuous efforts made by the Health Department in their endeavours to improve the health and sanitation of the City.

Similarly the statement of the number of deaths and the death-rate per 1,000 of the Census population from principal causes of death for the past 10 years as given in Table at page 41 gives irrefutable evidence of the marked improvement in the health and vital statistics of the City.

Results achieved are no doubt most gratifying and the Corporation have every reason to be proud of the wise and far-seeing policy adopted by them and the increased expenditure incurred in their approval of the reorganisation scheme submitted by me. The marked decline in the general death-rate alone has more than hundredfold paid back the extra amount spent. One thing we must never forget that sanitation means money and any money spent on sanitation would be money well-spent.

Before I conclude I have to tender my thanks to all members of my staff, both outdoor and office, for their loyal co-operation, ungrudging help and hard work throughout my term of office as it was the team-work of all



concerned that has resulted in such a brilliant record of achievement of no small measure.

### A Retrospect.

This will form the last of the Annual Reports written by me as I shall soon be proceeding on leave preparatory to retirement and a short resume of the work and activities of the Health Department and the progress made, if any, in the health and sanitation of the City during the period of my term of office as the head of the department, I believe, would not be out of place.

I have been connected with the public health service of this town since the year 1915 when I was appointed to one of the then two Assistant Health Officer's posts in the officiating vacancy, and with a break in service for the years 1918-1920 on my accepting a Commission as an I.M.S. Officer in the Great War, I have been in the service of the Corporation again since the year 1921. In the year 1924, the Corporation was pleased to select me as the Health Officer in the permanent vacancy then fallen vacant.

Besides taking charge of the Health Department I was called upon to take over the Veterinary and Conservancy Departments as well and amalgamate the same under my sole control and the posts of the then Veterinary Officer and the Assistant Veterinary Officer were abolished. When I took over charge, removal of town rubbish by bullock carts was the main and the only form of transport and the amount of refuse removed amounted to about 1,200 cartloads per day.

The existing staff of the Conservancy department including the men and the material employed in the removal and disposal of the rubbish from the rapidly growing town under the intensive activities of the Rangoon Development Trust, was found to be hardly adequate. A report was submitted by me to this effect and the Corporation was pleased to sanction, on my recommendation, the enhanced staff and the purchase of six motor-lorries instead of additional carts and bullocks.

The following observation appears in the said report :—

“Here I would particularly like to draw attention to my report submitted in connection with the extra conservancy staff required for the increased needs of the town and my notes thereon in reference to the substitution of bullock carts by Motor traction. I am more than convinced it is high time motor transport is substituted at a very early date. The Committee has been pleased to sanction my scheme of buying six motor-lorries instead of buying bullocks. I should now like to go a step further and suggest that instead of keeping the present sanctioned strength of over two thousand bullocks, every deficiency felt hereafter should be substituted by motor



traction and no further expenditure need be incurred after purchase of additional bullocks or construction of additional bullock sheds." This was my scheme as proposed in 1924 which was approved by the Corporation and whole-heartedly carried out in later years. Sanction was given to purchase six motor-lorries to begin with and the present fleet of motor-lorries is the outcome of this scheme originated by me. After passing through various stages and vicissitudes, removal of all the town refuse by means of motor transport is now an accomplished fact and the increased amount of work entailed in its administration necessitated the separation of the Conservancy and the Motor Transport Departments under a separate head since the year under report. This complete substitution of bullock cart transport with motor was brought about without a single day's hitch or trouble of any kind in the proper and efficient working of this department, mainly due to the mutual goodwill and co-operation of the Veterinary Officer and the then Chief Transport Officer, Mr. Tuppen, with the Health Officer during the whole period of its transition. My thanks are due to these officers which I readily extend.

Unfortunately the Conservancy department has had a series of setback since it was placed under a separate head and I was called upon to submit my views on this subject when it was brought up again before the Committee for reconsideration on the resignation of the newly appointed Chief Transport Officer. As it gives a brief record of the history of Conservancy, I have appended herewith a copy of the said report for reference any time in the future, at page 53.

Now coming to the main subject under review, I have been at the head of this department for the past eight years and I can do no better than place on record a comparative statement of the work done and the measure of success if any, achieved during this brief period of my regime as compared with the state of affairs existent in previous years.

The following Table gives a comparative statement of the total number of deaths and the death-rates per 1,000 of the population of the principal causes of death and the general death-rate for the past ten years as compared with the year 1930 under review.







The following table gives the number of Deaths and Death-Rates per 1,000 of

	Plague.		Cholera.		Small-pox.		Influenza.		Enteric.	
	No. of Deaths.	Death-Rates.	No. of Deaths.	Death-Rates.	No. of Deaths.	Death-Rates.	No. of Deaths.	Death-Rates.	No. of Deaths.	Death-Rates.
1920 ....	1,127	3'84	61	0'21	120	0'41	813	2'77	31	0'10
1921 ....	1,126	3'29	101	0'30	18	0'05	228	0'67	38	0'11
1922 ....	1,402	4'10	264	0'77	72	0'22	236	0'69	43	0'13
1923 ....	1,159	3'39	48	0'14	363	1'06	137	0'40	47	0'14
1924 ....	505	1'46	132	0'38	99	0'29	83	0'24	63	0'18
1925 ...	620	1'79	60	0'17	630	1'83	48	0'14	44	0'13
1926 ....	257	0'74	149	0'43	42	0'12	37	0'11	78	0'23
1927 ...	168	0'49	84	0'24	203	0'59	61	0'18	74	0'21
1928 ...	257	0'74	86	0'25	378	1'09	30	0'09	68	0'20
1929 ...	94	0'27	61	0'18	13	0'04	15	0'05	72	0'21
1930 ....	38	0'11	22	0'06	15	0'04	13	0'04	74	0'21



Census population from the principal causes of Deaths from 1920 to 1930:—

Malaria.		Tuberculosis		Respiratory Diseases.		Diarrhoea and Dysentery.		Total number of Deaths.	Death-Rate per 1000 census population.	Death-Rate per 1,000. Estimated population.
No. of Deaths.	Death-Rates.	No. of Deaths.	Death-Rates.	No. of Deaths.	Death-Rates.	No. of Deaths.	Death-Rates.			
352	1'20	920	3'14	2,157	7'35	990	3'37	12,140	41.39	36.75
387	1'13	915	2'67	2,241	6'55	976	2'85	12,066	35'28	Nil (being census year.)
406	1.19	1,046	3'06	2,198	6'43	939	2'76	12,323	36'04	35'53
350	1'02	939	2'75	2,131	6'23	838	2'45	11,918	34'85	33'89
279	0'80	1,035	3'00	2,287	6'62	1,014	2'93	11,448	35'13	32'11
224	0'65	1,250	3'62	2,344	6'78	1,249	3'61	12,373	35'81	33'90
220	0'64	1,152	3'33	2,585	7'48	1,695	4'91	12,231	35'40	33'04
219	0'63	964	2'79	2,476	7'17	1,040	3'01	10,851	31'41	28'91
236	0'68	796	2'30	2,642	7'65	866	2'51	11,690	33'83	30'71
172	0'50	852	2'47	2,329	6'74	915	2'65	10,980	31'78	28'46
132	0'38	761	2'20	1,967	5'69	727	2'11	9,541	27'61	24'40



From this statement it will be seen that there has been a marked decline in the number of deaths from almost all of the principal causes of death and a most satisfactory one in the general death rate of the town. I shall here briefly review some of these diseases, one by one.

### Small-pox.

The epidemic of small-pox is an event of perennial occurrence in our City as with other provinces of the British Empire in India. This disease is more or less endemic in our town and the conditions under which the people live, the extreme overcrowding in the living rooms, the huge floating population of the immigrant and emigrant labour community and the very large number of the unprotected people in the general population, afford excellent opportunities for this disease to spread like wild-fire once infection is brought in.

Every three or four years, a more virulent wave of the epidemic sweeps through the town claiming a heavier toll of life than usual.

So far vaccination by calf lymph is the simplest and surest protection against the ravages of this dreadful disease. Unfortunately however, vaccination does not grant life-long immunity. The protection granted by the first or primary vaccination fades away in time, generally after a period of seven years or thereabouts. That is why we see so many of the adult population suffer from Small-pox during epidemic times though they were vaccinated in infancy and bear marks of old vaccination. Hence the very great necessity of re-vaccination of every individual after a lapse of seven years of the primary operation.

I have already dealt with this subject in a most exhaustive way in my previous reports and a special report was submitted by me under the caption "Annual Recrudescence of Small-pox in Rangoon and the necessity for introduction of Compulsory Re-Vaccination to safeguard the town and incidentally the Province of Burma from such infection," in the year 1924.

This report was readily approved by the Corporation and forwarded to the Local Government endorsing their recommendations to the suggestions made by me in the said report for an Act of legislature to introduce compulsory re-vaccination of all the labouring community entering the Province, as this was in my view the safest and the surest preventive measure in the true sense of the word. As a result of this action, I am happy to state here that though this question of compulsory re-vaccination of the immigrant labour coming to this Province was first raised by me in my Annual Report for the town of Bassein for the year 1914, it has at length seen the light of day. An Act of legislature was accordingly passed in the Local Council and His Excellency the Governor-General in India has given his gracious consent to the Burma Act No. IV of 1928, amending the Burma Vaccination Law Amendment Act of 1909 whereby every person who has travelled on board the



vessel for the purpose of coming to Burma will be required to be vaccinated by the Port Health Authority unless he shows signs of having suffered from Small-pox or produces evidence that he has been successfully vaccinated or re-vaccinated within seven years preceding his arrival in Burma.

This Act is now in force for the past two years and over 2,00,000 of the immigrants entering the Port of Rangoon are subjected to vaccination before they are allowed to enter the town. The Corporation has undertaken to maintain four Vaccinators exclusively for this purpose and supply any number more whenever requisitioned by the Port Health Officer, and supply the necessary lymph free of cost. The Port Health Officer has the necessary powers under this Act and the operation of the Act is left under him, we supplying the Vaccinators and the necessary amount of calf lymph.

The statement at page 123 gives the total number of the immigrants vaccinated at the Port, the wages of the four Vaccinators and the cost of the lymph supplied.

From the statement of the history of past ten years given here in the beginning of this chapter it will be seen that the number of deaths caused by Small-pox for the past two years is 13 and 15 only respectively as compared with heavier mortality figures of previous years. It is early as yet no doubt to say what lasting effect this recently introduced Act has had on the course of Small-pox in our town but when the fact of the wide-spread prevalence of this disease in different parts of India including the Ports of Calcutta and Madras from whence we get the largest share of our labour community, with large number of fatal cases during the years 1929 and 1930, is taken into consideration we have every ground to believe that this unusually low figure during these same two years may have been the result of this Act to some extent at least. Full credit will certainly be laid at the doors of the Corporation of Rangoon in time for their hearty and ready support given to the recommendation made by their Health Officer in his efforts for years past to prevent the annual recrudescence of this disease in the town. We have so far succeeded in obtaining this protective measure against the immigrant labour by an Act of legislature which is the first of its kind in British India and under Section 12. A of the same Act provision has been made now to vaccinate or re-vaccinate every person who has attained the age of twelve years and has been a resident in this town for the past one month or over. We are taking steps to vaccinate every child in the City who has or will soon attain the age of 12 years and thus by compulsory re-vaccination at this age, they will be conferred more or less a life-long protection wherever this second vaccination happens to end in a successful reaction. This is the first City I believe in British India where compulsory re-vaccination at the age of 12 years has been introduced and the justifiable pride however so little felt by the writer of this note who is responsible for this achievement at the time of his retirement will not I hope be taken amiss. With these two protective measures, I have not the least doubt in my mind that when provisions of this Act are properly and efficiently carried out the whole of the Province of Burma and inci-



dentally the City of Rangoon will be given a measure of protection so long denied, against the annual recrudescence of this terrible disease and in the years to come the word "small-pox" may have to be relegated to the limbo of oblivion.

## PLAGUE.

Plague, I believe, was first introduced into the City of Bombay in the year 1894 from ships and merchandise bringing infected rats from Hongkong. It gradually spread to all other parts of the Province and soon the rest of India was infected. It took nearly ten years to reach the shores of Burma and the first epidemic of Plague in Rangoon was experienced in the year 1905. Since then this disease has been with us year after year without a single break but with increased virulence at various periods of its cycle.

We have had severe exacerbations of this disease in the years 1908, 1911, 1914, 1916, 1918 and 1922. The death-rate of this disease was 11.74 per 1,000 of the population in the year 1906 and 4.10 in the year 1922. The total number of deaths from this disease was 2,974 in the year 1906 and the average of the 10 years 1914-1923 was 1,253 per year. Rangoon is the chief centre of the rice trade of this Province and one of the largest granaries in the World. Plague is a disease of rats and other rodents. Rats, rice and shipping are more or less inseparable. Every cargo of rice, every boat-load of paddy, brings into our City rats infected or otherwise, innumerable. All our efforts to clear the town of infected rats are simply rendered hundredfold more difficult by this invasion of infected rats from different parts of the Province.

There is no other part of the Province, however heavily infected, where such a ruthless warfare has been waged against this pest of rodents as in this City. An intensive campaign against the rat population of this City was launched by me soon after I assumed charge of the department and though it has cost the Corporation some money, the results achieved have been extremely gratifying.

Besides the 18 permanent gangs, 8 extra temporary gangs were entertained in the year 1924 and from the statement given in Table at page 16 it will be seen that *pari passu* with the increased number of the rats destroyed and the house-sites cleaned, there has been a corresponding drop in the number of plague attacks and deaths. Since the year 1924 when we launched our attack on rats with double fury, year in and year out, there has been a remarkable and very rapid decline in the number of plague cases and deaths. In 1923 the total number of deaths recorded was 1,159. With a continuous and steady fall, the total number of deaths from this disease in the year under report was 38 only.



This has been the lowest on record, I believe, in the history of plague in this City and it is with a sense of great satisfaction I am handing over charge of this the most important department of the Corporation to my successor with the incidence of this terrible scourge of the East brought down to a more or less vanishing point.

## **CHOLERA.**

This disease too is widely prevalent in the whole of this Province during its epidemic season. Contaminated water supply is the principal causative agent in the wide-spread outbreaks of this disease all the world over. Burma is not an exception to this factor.

Cholera and other waterborne diseases such as enteric, diarrhoea and dysentery, have been completely eradicated from many a City by the introduction of adequate and wholesome pipe water supply. This one measure alone has been found successful in getting rid of these diseases without any other efforts. The same result has been noted in our City but unfortunately there are many areas still in existence where the town water supply has not been extended. Places like Dalla, Kanaungto and other riverine habitations mainly depend upon tanks and wells, shallow or deep, for their water supply and the few cases of Cholera that we usually get in Rangoon are mostly from these places.

The infection is brought generally from the district where Cholera is more or less endemic and breaks out in epidemic form every year during the hot season. Thus our City is perennially at the mercy of these imported cases of Cholera from other parts of the province, coming as they do by rail, river or road. A great portion of the City is well protected however against the inroads of this disease by the provision of pipe water, well chlorinated, but the riverine and suburban areas are still exposed to the ravages of this disease once introduced. Thus the greatest vigilance on the part of the Health Department is needed to prevent the spread of infection from imported cases and outside sources. How well the City has been guarded against a bad attack of this disease, figures given for the past ten years in Table at page 41 speak for themselves.

### **Respiratory Diseases, Tuberculosis and Bowel complaints.**

Of the total number of deaths from all causes every year, the three principal diseases which are responsible for the largest number of deaths are Respiratory Diseases, Tuberculosis and that group of bowel complaints commonly known as Diarrhoea and Dysentery. During the year under report of the 9,541 total number of deaths as many as 3,445 or 36 per cent of the total deaths were due to these three diseases alone.

I have dealt with these subjects more or less exhaustively in my previous Annual Reports and it would be a mere repetition of what I have already



said so many times before. For anyone interested in the subject I would beg leave to invite a reference to my Annual Reports of the past few years and some of the special reports submitted by me on the subject.

I am glad, however, to state here that the Corporation has been pleased to accept the scheme proposed by me of the establishment of an outdoor Tuberculosis Clinic for which provision has been made in the Budget and active steps are taken to prepare the necessary plans and estimates.

### General Death-rate of the City.

The City of Rangoon is unique in more respects than one. It is the largest immigration and emigration Port in the World outstripping even New York, the world's recognised largest Port in this respect. Our City is subject to many an adverse circumstance that other Cities in the East are free from. This obviously reflects upon the health and sickness of the people and the general mortality of the town. I have already dealt with this subject at some length in my Memorandum submitted to the Health Enquiry Committee in the year 1926 and here I will deal with only one or two principal factors which adversely affect the general death-rate of the City.

The following Table gives the figures of the total number of immigrants and emigrants for the past 3 years:—

Year.	Immigration.			Emigration.			Remarks.
	Adults.	Children.	Total.	Adults.	Children.	Total.	
1928 ...	3,69,910	15,713	3,85,623	25,597	2,220	27,817	To Indian Ports.
				2,63,345		2,63,345	
1929 ...	3,55,169	14,189	3,69,368	26,948	2,489	29,437	Do.
				2,82,344	12,230	2,94,574	
1930 ....	3,09,483	14,675	3,24,158	25,857	2,479	28,336	Do.
				2,98,376	14,053	3,12,429	

From this it will be seen that the total number of immigrants that enter the City through the Port alone comes very near to the total population of the City itself. An equal number is found to leave the Port as well during the year. Our City forms the centre of this movement so to say a huge clearing house. A small portion of this floating mass is absorbed by the City, the



remaining pass a short or long period at one time or another of their journey in this City prior to their distribution in other parts of the Province. Thus the population at one time or another far exceeds the figure arrived at when the last Census was taken. The actual death returns are based on the last Census figures and thus the rate arrived at is obviously higher than it actually is. We have no means to arrive at the actual population of the City from month to month or year to year as it varies according to the season and the conditions of trade or major works during the year. All the calculations therefore based on a fixed supposed population must necessarily be crude only.

Another great factor which adversely affects the general death-rate of our City is the wide extent of the drink and drug evil prevalent in the labour community of the town which moreover forms the bulk of the general population.

“ Ill-clad, ill-fed, ill-housed, it is notorious how these people succumb to the vile temptations offered by the drink and drug shops so promiscuously posted close to their industrial and living quarters which sap the last drop of blood from their half-starved bodies. The disastrous effects of this evil are very insidious in their origin and the general health is so undermined in time that the victims fall a ready prey to all ailments and early death.

With such disastrous evil effects of the drink and drug habit on the mind and body of these ill-clad, ill-housed, half-starved community, it is little wonder dearth disease and death should be so rampant."

I have quoted this from the Memorandum referred to above. This was written in 1926 and the views expressed here of the half-starved condition of the labour mass received unequivocal evidence only the other day from Lt.-Col. T.F. Owens, I. M. S., who in the course of his address at the local Rotary Club has given a very graphic and so pathetic account of the hundreds of post mortems done by him year after year on bodies sent to the Hospital and the only cause of death he could account for was chronic starvation as would be seen from the extract given below of his address.

“ ” “To come to the unpleasant fact baldly stated, it is that hundreds of human beings starve to death annually in Rangoon. In using the term starvation I do not mean complete deprivation of food—what I mean is chronic starvation due to insufficient and improper food.”

### Bodies on Streets.

" Every year the Police pick up off the streets between 400 and 500 bodies either dead or dying. In this number are not included cases in which death resulted from violence. A few of these 400 to 500 cases are due to natural causes as for example Heart Disease, the remainder are those of unfortu-



nates who ill, homeless and utterly destitute, depend on charity for the meagre quantities of food they are able to procure, have daily lost strength until the aggravation of the already existing disease or an attack of Pneumonia or Dysentery or something of the sort has mercifully put an end to their sufferings."

Another great factor which adversely affects the general death-rate is the existence in our City of such large institutes as the Rangoon General Hospital, the Leper Asylum, the Bishop Bigandet Home for the incurables and the Little Sisters of the Poor Home for the Aged and Decrepit.

The Rangoon General Hospital is the largest institute of its kind in this capital City of the Province of Burma and naturally attracts a very large number of patients from all parts of the Province, suffering from various kinds of acute, chronic, or incurable diseases and ailments requiring expert Surgical or Medical treatment. Similarly, a large number of the aged and the incurables from other parts resort to the institutes named above, the only one of its kind in the Province. The mortality rate of the inmates of all these institutes is naturally very high and all the deaths taking place here are recorded in the death returns for this City. The general mortality rate of the town, is obviously thus greatly enhanced.

Of the total number of 9,541 deaths recorded for the year under report as many as 2,134 or 22.37 per cent were accounted for as having taken place in Hospitals and Public Institutions noted above.

These are only a few of the factors adversely affecting the general death-rate of this City. For fuller details I would invite a reference to the Memorandum referred to before.

Now coming to actual facts in spite of such adverse influences, the general death-rate of our town was 24.40 per 1,000 of the estimated population of 3,91,055 for the year 1930. How far short we were in our estimation of the population for the year under report will be seen from the fact that the 1931 Census recently taken has shown that the present population of the City is 4,00,415.

A good portion of the deaths taking place in the Hospitals and Institutes noted above, really speaking, do not belong to our town. Similarly, a certain number of deaths takes place among the large number of visitors coming to Rangoon for business, trade, sickness or other purposes during the year, are also included in our City returns. Thirdly, a large number of infants born in the districts are brought into the City and the prevailing high mortality rate among the infants considerably increases the total death returns of the City though they do not properly belong to the City.

There are many other factors besides but even taking these principal ones the total number of the deaths so included comes to a formidable figure. If the death returns of the City proper be thus corrected and all the outside



deaths eliminated from our returns, the corrected or the true death-rate of the City would be found to be much lower than our most sanguine expectations. Now let us see what progress we have made in the general death-rate of the town and *pari passu* the sickness rate during the past ten years.

From the Statement given at page 41 it will be seen that the total number of deaths in the year 1920 was 12,140 with a death-rate of 41.39 per 1,000 of the Census population or 36.75 on the Estimated population.

In the year under report, the total number of deaths was 9,541 giving a death-rate of 27.61 per 1,000 of the Census population and 24.40 on the Estimated population, that is to say the death-rate of the town has been brought down from 41.39 per 1,000 to 27.61 per 1,000 on the Census population or on the Estimated population from 36.75 to 24.40, a decline of 14 and 12 per 1,000 respectively during the course of the past ten years. In other words there has been a saving of life to the tune of over 5,000 people during the year under review. The amount of sickness rate similarly prevented may be taken as ten times as much. If the method of evaluating human life be adopted for this very large number of the lives saved and the economic loss sustained during sickness, one would be amazed to find the colossal return in money value accrued by the comparatively insignificant amount spent after the health administration of the City.

Now a question would naturally arise what has brought about such a sharp decline in the general death-rate of the town within the last few years. The palm of credit should naturally be given to the vigorous action taken by and the strenuous efforts made by those responsible for the health and sanitation of the town but there are other agencies also which should share equally well with any credit due to the health administration of this City. There is no single factor responsible for this great and most satisfactory decline in the death-rate of this City. Forces have been applied for good from all quarters, attacks have been launched against filth, insanitation and unhygienic state of living conditions from all directions, safeguards have been introduced against articles of food and drink exposed for sale which are unsound, unwholesome or unfit for human consumption. Measures have been taken to protect individuals and communities by means of protective lymph vaccines, inoculations and bilivaccines against some of the virulent communicable diseases, purity of the water supplied to the people has been ensured since the introduction of chlorination by me in the year 1925, tube well water supply has been extended to suburban areas, the provision of free outdoor relief to the sick poor of the town at the five Corporation Dispensaries, establishment of Ante-natal and Post-natal clinics, free attendance of Lady Health Visitors and Nurse-Midwives at the time of confinement and after, and a host of other preventive measures taken by the Health Department have all contributed their mite in this satisfactory state of advance made.

The Rangoon Development Trust too have not contributed a little towards this decline in the general death-rate of the town. Old slum areas



have been cleared, reclaimed and newly laid out, new areas have been created, properly laid out and equipped with pucca drains and roads and any number of new house-sites are made available for the poor and the rich thus helping us not a little in improving the sanitary conditions of the City and ameliorating the woeful living conditions of the people.

The Corporation of Rangoon though has been doing its utmost with the limited financial resources at its command to tackle the various problems of health and sanitation brought to its knowledge by its expert heads of different departments under its control, yet much remains to be done. The housing conditions in our town have been extremely bad. I need only make here a passing reference to the appalling state of overcrowding in the living rooms, I have described in my various reports before, and to the gross inadequacy of the number of beds available for indoor patients in the hospitals provided by the Government for the relief of the sick and poor coming to Rangoon from all parts of Province besides the needs of this City alone with a population of over 4,00,000 people, a vast majority of whom belong to the labour community.

The Local Government's attention has been drawn to this very urgent need of the City sufficiently often, I believe, since I first wrote on this subject in my Memorandum referred to before in the year 1926.

The other two very urgent needs of the rapidly expanding City of ours are the provision of wholesome and adequate supply of water to the whole population and the extension of underground sewers in the suburban portions of the City.

The Corporation is doing its utmost to augment the present supply by providing tube wells in various parts of the town but this supply could hardly meet the full demand at best a mere palliative and at all times a rather precarious source of supply for a City of our size.

Nothing short of a scheme like the Yunzalin one or the one submitted recently by our Chief Engineer, Mr. Mann, would ever meet the growing demands of this City. I have appended herewith (page 56) a copy of the criticisms I have offered on the practicability of the Hlawga Low Level Lake Scheme proposed by Mr. Mann and nothing I consider as of greater importance than the solution of this problem at the earliest date, as the growth, prosperity and general good health of this City is intimately bound up with an adequate and wholesome water supply.

The purity of the present pipe water supply of the City is absolutely above suspicion since the chlorination of our water first introduced by me in the year 1926. By means of efficient chlorine administration, a very high standard of bacteriological purity is maintained and nothing further is needed, I believe, at present in this respect provided the Chlorination of the Lake Water is judiciously carried out year in and year out and sufficient supply of



chlorine cylinders maintained in reserve to meet any delay or breakdown in its regular supply from England.

The charts given at pages 59, 60 & 61 give a graphic record of the great progress made and the good results achieved by the Health Department of the Corporation during the period I have been as its Administrative Head, a record of work and progress of which any Health Officer in the East or West would justly be proud of.

When the time comes, I shall lay down my pen with a deep sense of gratification for having done my duty to the best of my ability and what little good I have been able to achieve I am not unmindful of the hearty and loyal help and co-operation of my Assistant Health Officers and all the other outdoor and indoor staff without exception to whom I extend my most grateful thanks as without their willing acceptance of all my orders and mutual good will and co-operation, such a brilliant record of good work done could hardly have been achieved.

Before I conclude I cannot help placing on record an humble tribute of my most grateful thanks and deep sense of gratitude to our late distinguished Commissioner, Gavin Scott, Esq., M.A., C.I.E., I.C.S., whose ever courteous treatment and unstinted help, advice and support during the greater term of my office were the real source of pleasure and strength to me in my efforts to lighten the burden and the heat of the day on many a occasion.

It is a pleasure to record my tribute of grateful thanks to our present Commissioner, U Set, B.A., who has been equally kind and willing to help my labours.

K. R. DALAL,  
L.M. & S., D.T.M., D.P.H.,  
*Health Officer,*  
*Corporation of Rangoon.*

Dated, Rangoon:

*The 26th May 1931.*



## APPENDIX A.

**Note by the Health Officer, Dr. K. R. Dalal, on the present system of Conservancy and Transport.**

Before 1912, Conservancy was originally under the charge of the Health Officer. Then for a year or two it was transferred to the Chief Engineer. Throughout this period the only source of transport was by means of bullock carts and the Veterinary Officer was in charge of the bullocks and the carts. It was soon found that unless full control of the method of disposal of the rubbish at the depot and its collection and removal from the town by means of bullock carts was given to one agency, the work of conservancy could not be carried out satisfactorily. Hence the whole operation of the conservancy work was finally entrusted to the sole control of the Veterinary Officer.

When I was asked to take over charge of the Health, the Conservancy and the Veterinary Departments in the year 1924 under my control, I had made certain proposals to run the Conservancy branch side by side with the Sanitary branch of the Health Department so that the four Assistant Health Officers of the proposed four divisions of the town will have direct supervision of the conservancy work as well side by side with the sanitary and other activities of the health department, and it was proposed to leave all other sections of the Veterinary Department connected with animals to the Veterinary Officer. So far as the removal of rubbish was concerned, I had condemned outright the existing system of transport by means of bullock carts and my views were accepted by the Corporation giving sanction to the immediate purchase of six Leyland Motor lorries for the removal of rubbish. In this way, the Motor Transport system came into being and its subsequent growth and development under my charge in close collaboration with Mr. Tuppen who was later appointed as the Motor Transport Officer in charge of the lorries in addition to his charge of the Fire Brigade, is an event of recent history. This system of dual control, however, was soon found to suffer from the same defects that were noted in 1912 and it soon became evident that unless full control of the transport rests with the same officer who has control over the sweeping and collection of rubbish, work cannot be performed quite satisfactorily.

The whole method of rubbish disposal in Rangoon Town rests upon proper sweeping and collection of all town refuse, rapid removal of all collected refuse by means of motor lorries and its final disposal at the rubbish tips as at present with the least possible nuisance inevitable under the existing conditions or by means of destructors in the near future. The whole process is a complete system of which all the parts are inter-related. Any breakdown at any stage means dislocation of the whole machinery.

It will be therefore evident that unless the whole machinery is under the control of one directing head, it is never likely to work smoothly with any regard for efficiency or economy. It was mainly on this consideration and



the fact that more and more of the machinery concerned in the process, involved a higher grade of mechanical skill as the scheme for Destructors so persistently advocated by me was at last already under consideration, that the post of the Chief Transport Officer was created and he was made solely responsible for the proper conservancy of the town as well. This scheme was practically given effect to since the month of February of this year and a certain amount of experience has been gained since then. As explained by the Commissioner in his note dated 12th August 1930, since the Chief Transport Officer has submitted his resignation, the time seems opportune to take stock of the whole position again.

The present arrangement costs the Corporation a good bit of money and it is a question for the Corporation to decide whether a fair amount of return is obtained in lieu thereof.

The Supervising Staff of this branch at present consists as follows :—

Chief Transport Officer.

Rs. 1,000—1,500. M.C.A. Rs. 150.

Conservancy.

Motor Transport.

Supdt. Day.	Supdt. Night.	Transport Yard Foreman. Foreman.	Traffic Foreman.	Foreman.
300—400	300—350	350—400	150—200	150—200
H.A. 50	H.A. 50	H.A. 40	H.A. 50	C.A. 50
C.A. 75	C.A. 75			H.A. 50

It gives roughly a total monthly expenditure of Rs. 3,000 on the Superior Supervising Staff alone. To this the Chief Transport Officer has now made a proposal to add some more hands. This might bring the cost of this department to a much higher figure still. The point is "is it worth so much". I know of no other Municipality in the world where the amount spent on the subject of conservancy alone amounts to such an extravagant figure proportionately to our town. There is no gainsaying the fact that the day and night conservancy of the town is so intimately connected with the proper sanitation of the town and the health and well-being of the Public that it is highly undesirable to divorce this branch of sanitation from the health department and deprive the head of this department of any direct control or executive authority over the proper cleansing of the town. We have had ample opportunities and ample time to judge of the efficacy or otherwise of the running of the conservancy side of this department under the guidance and authority of Officers who have had no special training in matters of public health and sanitation and all the experience of our efforts made in the past for the proper working of this department under various heads points to the one inevitable conclusion that the health department is the only most competent authority under which conservancy could be carried out most efficiently from the public health point of view. But the sine qua non of its efficiency lies in the fact that the head



of the department should have the sole control and direct executive authority over all the phases of its operation constituting as it does of sanitary manual and mechanical problems.

This question of the conservancy department was under consideration for a considerable period of time before it was finally settled in November of 1928 and the then Transport Officer had naturally abstained from keeping the whole mechanical side of the department up-to-date and its natural course of evolution was more or less kept at a standstill. When it was finally decided it was to be handed over to a new officer who was not cognisant of the state of affairs prevailing in Rangoon-added to that unfortunately the serious disturbances that followed the recent riots in the City followed by the desire of the newly appointed Chief Transport Officer to resign his post before the probationary period of his service-a further set-back was given to the progress of this department.

The whole machinery of this department is being thus allowed to drift into a very precarious condition and a very serious situation will soon arise.]

Our fleet of lorries needs immediate overhauling, new projects will soon have to be evolved for final disposal of our town rubbish, the existing rubbish tips are not inexhaustible, the Kemmendine one is closed since long, the Ahlone will have to close down in a year or two and the only remaining one at the Mill Road will last for a short term. The Corporation will soon have to decide once for all if the modern destructors are to be harnessed to our machinery or a fresh land of some 500 or more acres of land, low-lying and within easy reach of the City, should be searched for. I would therefore heartily endorse the recommendations made by the Commissioner to transfer this department once again to the Health and appoint a separate Transport Officer possessing necessary qualifications for the nature of the work he would be expected to shoulder and held immediately responsible to the Health Officer whose active collaboration would be absolutely essential in all projects dealing with the rapid transport and final disposal of all town refuse with the least possible nuisance in its widest sense. This Officer will have sole control of the mechanical side of the machinery, the transport depot and the rubbish tips and the destructors in its final evolution.

For an Officer of this standing and merit, possessing qualifications of a first class engineer, the salary offered should not be less than Rs. 750—1,000 per month.

In view of the fact that the Corporation have expressed their keen desire for economy by the appointment, recently made of a Special Committee, I think the best solution of this problem lies in accepting the Commissioner's recommendation to place this department once again under the Health Officer who possesses such an efficient and highly trained staff who would do honour to any City in the West, and thus secure the benefit of this trained staff already at our disposal to help the conservancy and at the same time increase the efficiency of the work.



If the Commissioner's proposal be approved, I shall be glad to re-arrange the Health Department and relieve one of the Assistant Health Officers to take over sole charge of the conservancy work of both Day and Night without any other extra staff or expenditure. In that event, instead of the Chief Transport Officer on Rs. 1,000—1,500, the Corporation need appoint one Transport Officer on Rs. 750—1,000 only and place him directly under the Health Officer.

K. R. DALAL,  
L.M. & S., D.T.M., D.P.H.,  
Health Officer,  
Corporation of Rangoon.

Dated Rangoon :  
The 2nd September 1930.

## APPENDIX B.

**Note by the Health Officer, Dr. K. R. Dalal, on the proposed Hlawga Low Level Lake Scheme.**

*Chief Engineer.*

Thanks very much for sending me a copy of your printed report on the proposed Hlawga Low Level Lake Scheme.

Of all the Schemes for an extension of the Rangoon City Water Supply so far studied by me, I consider your scheme as the most practical one from all points of view.

To begin with, the water-spread and the catchment area selected in this scheme lies east of our existing Hlawga Lake, and not very far from the town. All the data concerning rainfall, nature and permeability of the soil, gradient, sources of contamination, etc., are already in our possession. There is in existence a long record of the series of dry and wet years for the past many years, so also of the seepage and evaporation in this area. Calculations based on these records would be more or less infallible.

II. The catchment area of the New Reservoir about  $20\frac{1}{2}$  square miles, of which 13 square miles would be water-spread, compares very favourably with the 10.3 square miles of the total catchment area of the existing Hlawga Lake of which only 3.9 square miles are water-spread.

III. After taking into count the losses due to evaporation and seepage the new reservoir would leave in balance about 2,158 million cubic feet of water for storage and supply or sufficient for a maximum daily supply of about 37 million gallons against  $12\frac{1}{2}$  million gallons for our Hlawga Lake at present.

IV. So the capacity of the new lake combined with the old would be considered to be not less than  $47\frac{1}{2}$  million gallons per day in a normal year and 35 million gallons in a dry year as per statement given on page 8 of your printed note.



V. According to your calculations, if the daily maximum supply per head be restricted to 60 gallons, this new scheme plus the existing Hlawga ought to supply the needs of the City up to the year 1985 or say for 50 years hence. You have based your figures of population at 400,000 in 1935 with a yearly increase of 7,500. These figures, I am afraid require to be modified. The Census figures just completed shows that the Rangoon City has already exceeded 400,000 by now in spite of the fact that between 30,000 and 40,000 have already left Rangoon for good since the last disastrous Riot and the town is depleted of a similar number or more on account of the big depression in trade all round and the closing of over half the number of Rice Mills of the City. So had it not been for these factors, the population of our City this year would have far exceeded the figure of 400,000 as anticipated by me as far back as 1926 in my Memorandum on the Health Enquiry Committee.

So it would be better to correct the figures given in the Table at the bottom of page 8 of your printed notes assuming the number of consumers as Census 400,000 or Estimated 460,000 in 1931 with a yearly increase of 10,000 on an average.

VI. Looking to the unique conditions of the huge migratory population of the labour community in this City, Rangoon being the principal port of emigration and immigration annually of over 350,000 people each way, there is always such a large influx of people at one time or another during every season of the year that it would be far safer to take the figures given by me for our calculations on the total quantity of water consumed per day. Again the full development of the extensive areas in the suburbs of the town has not taken place as yet and when the sewerage system is extended to these areas the consumption of water per head will also go up not a little. I am therefore inclined to be less optimistic than yourself in my forecast of the probable supply of water from this source to last for more than 30 years from hence, under normal conditions, and not 50 years as predicted by you.

VII. Another great advantage of your scheme is that the water impounded in the reservoir will mainly be the rain water and the amount of rainfall we know from past experience is more or less extremely reliable in this area. There are no great villages, towns or suburbs closeby to contaminate the water supply and the quality of the accumulated water substantially good.

Besides, storage itself as you say is a good purifying agent but I would here very strongly urge upon the advisability of ante or post filtration after sterilisation with Chlorine. This will ensure a perfectly safe water supply for the poorest of our consumers.

VIII. Economically, your scheme obviously is a much preferable one compared with others. Overhead charges of supervision will be much less on account of the close proximity of the old Lake. New pipe lines will run



along old ones, I believe, and diverting bends could be installed at convenient distances so as to eliminate complete stoppage in case of accidents or bursts in pipe line and supplement water from one to the other, if needed. If filtration beds are installed, it would be easy to subject the old lake water also to this process with a great saving in cost.

Taking all these factors in view, unless there is anything inherently wrong in the scheme from the Engineering point of view, for which I am not competent to judge; I think your scheme of the Hlawga Low Level Reservoir appears to be a sound one and ought to meet with the approval of the Corporation.

K. R. DALAL,

L.M. & S., D.T.M., D.P.H.,

*Health Officer,*

*Corporation of Rangoon.*

Dated Rangoon:

*The 30th March 1930.*



along with one, I believe, and diverting heads could be installed at convenient  
distance as to eliminate complete stoppage in case of accidents or faults  
in the line and equipment water from one to the other, if needed. It is  
not a matter of cost, it is a matter of safety to suggest the old line  
this project with a great saving in cost.

Taking all the factors in view, unless there is anything inherently  
wrong in the scheme from the engineering point of view, for which I am not  
competent to judge, I think your scheme of the Illinois Low Level reservoir  
appears to be a sound one and ought to meet with the approval of the  
Corporation.

K. R. DABALA

J. M. S. D. M. D. M.

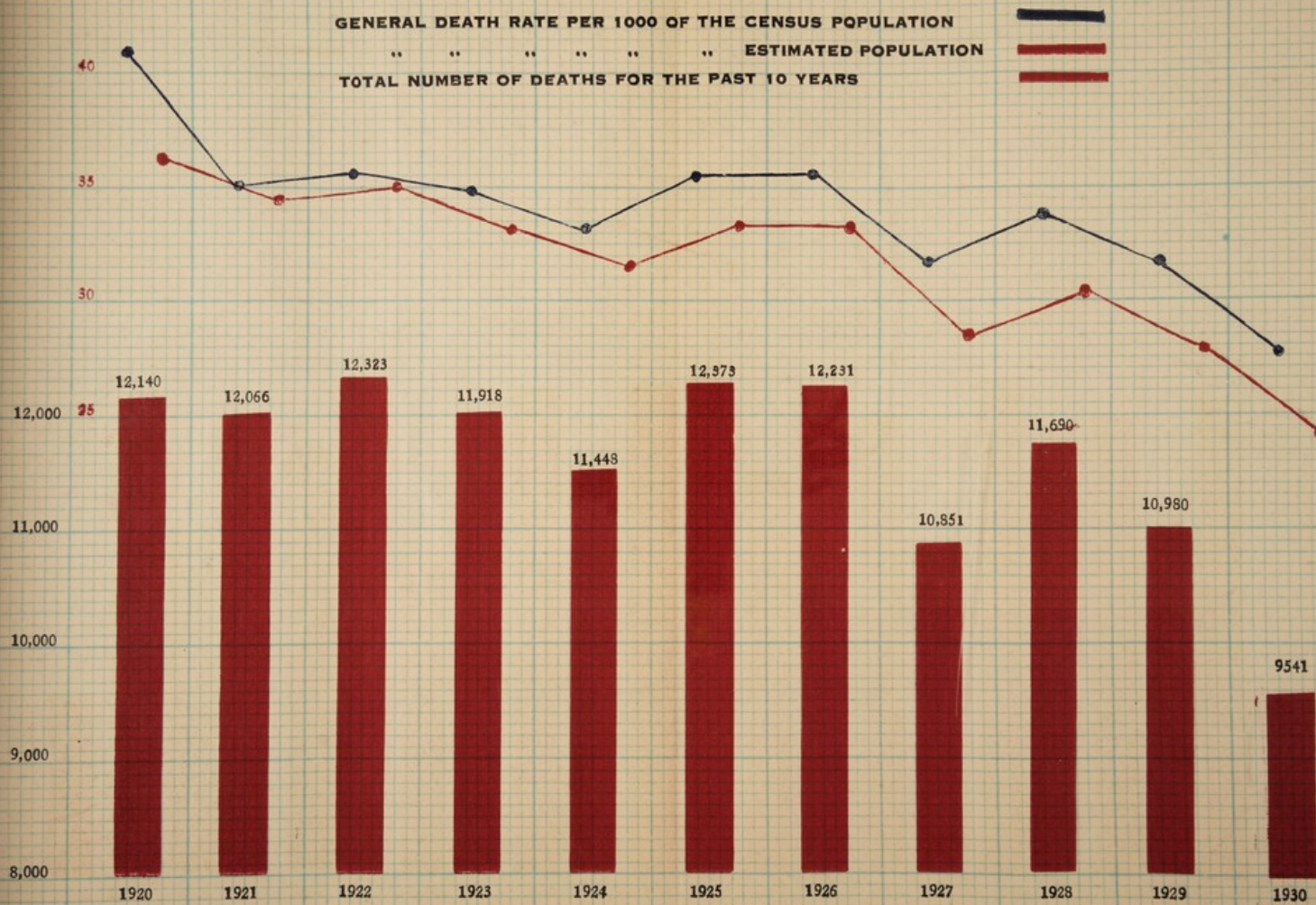
Health Officer

Corporation of Kansas

The same is stated above.

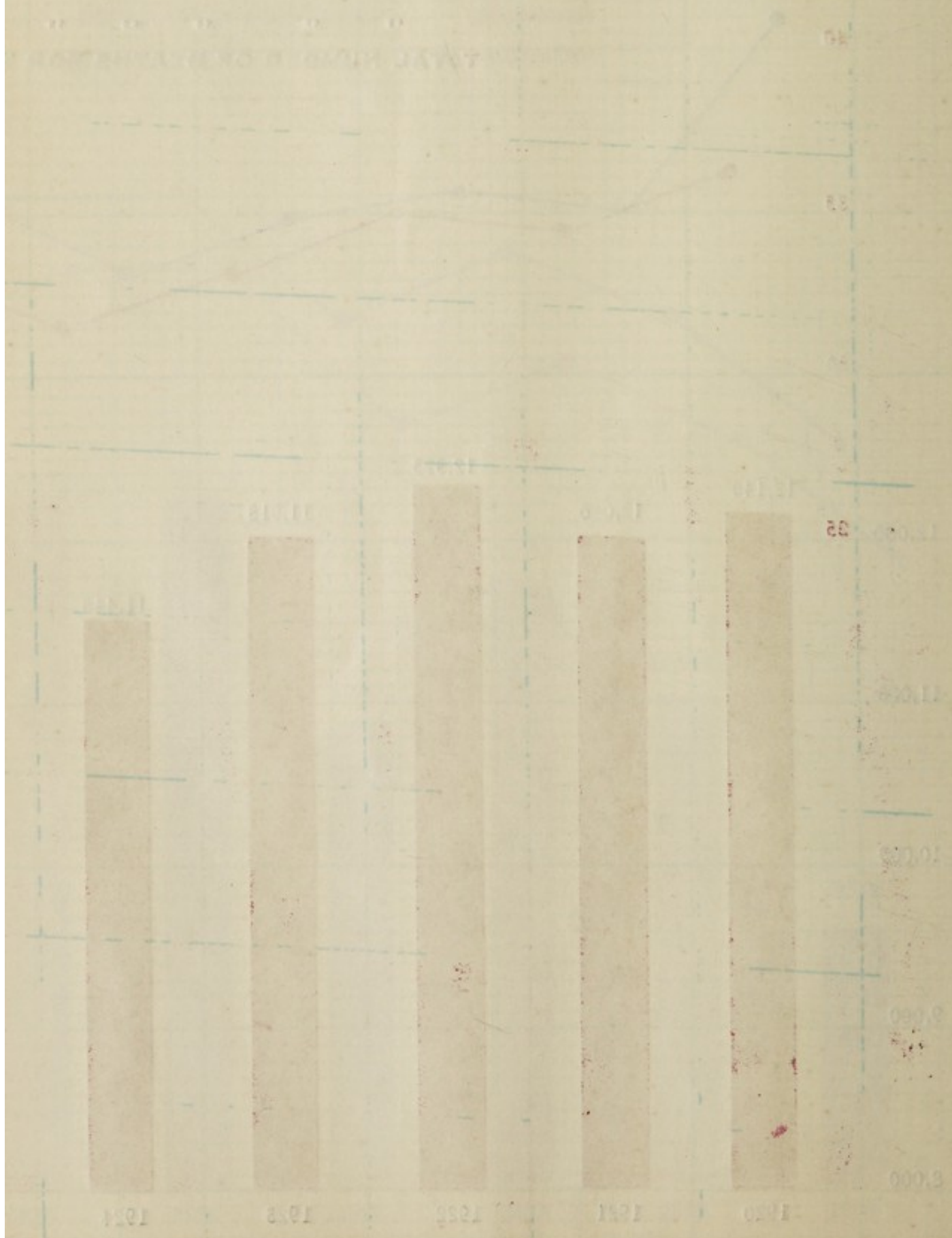


GENERAL DEATH RATE PER 1000 OF THE CENSUS POPULATION  
 " " " " " " " " ESTIMATED POPULATION  
 TOTAL NUMBER OF DEATHS FOR THE PAST 10 YEARS



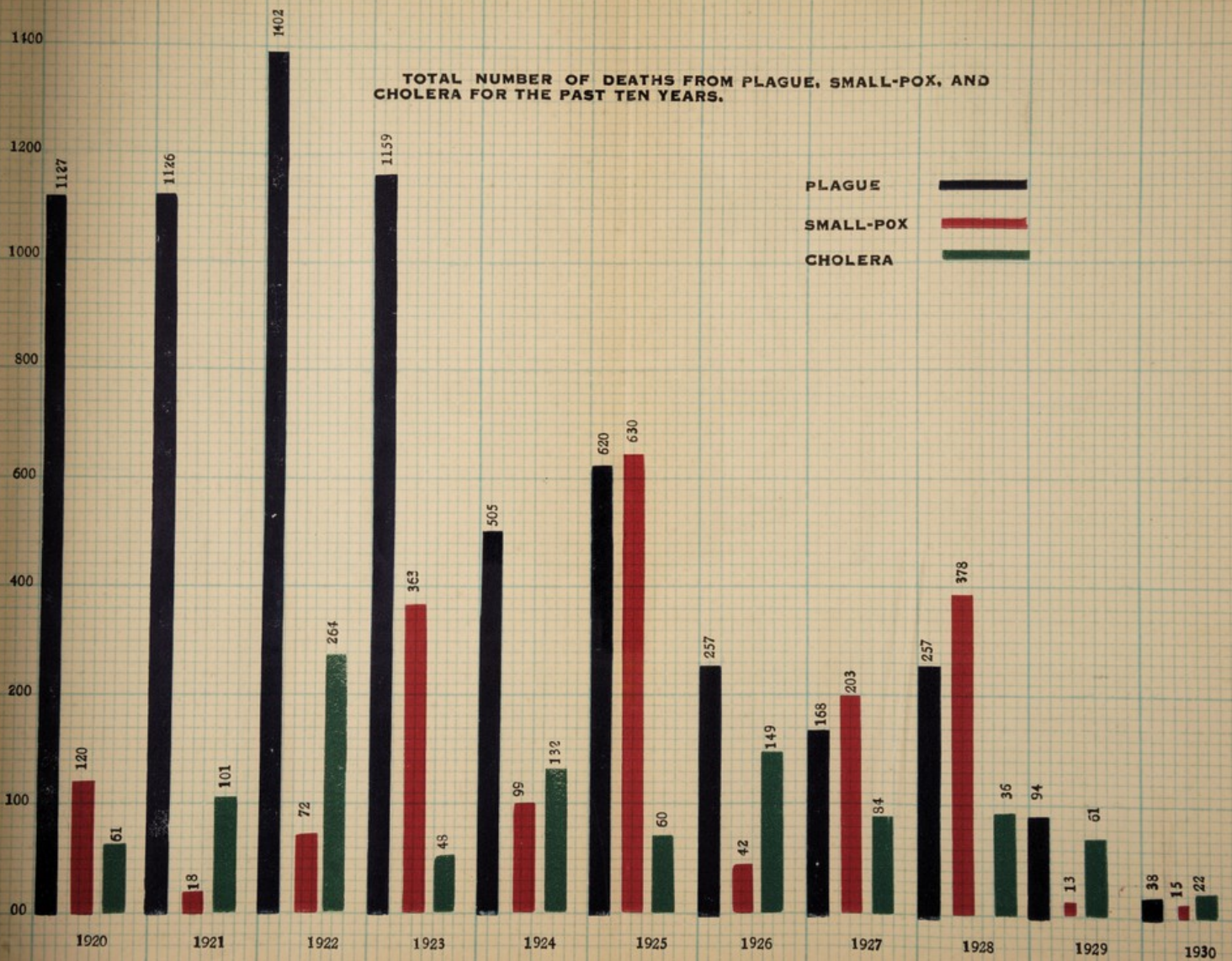


6TH NAT TREATY HAVE BEEN  
 TALKING TO OR NEGOTIATING

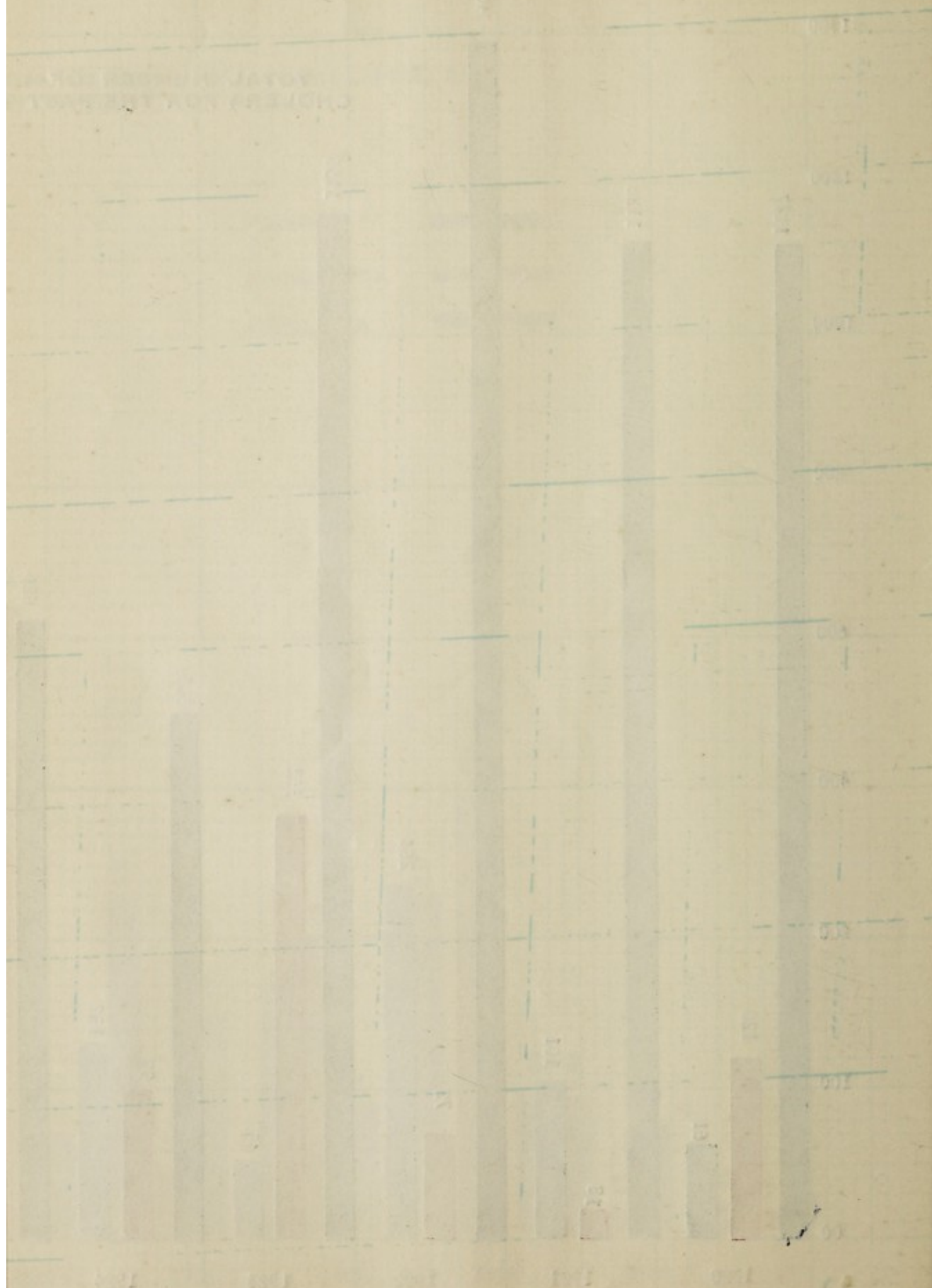




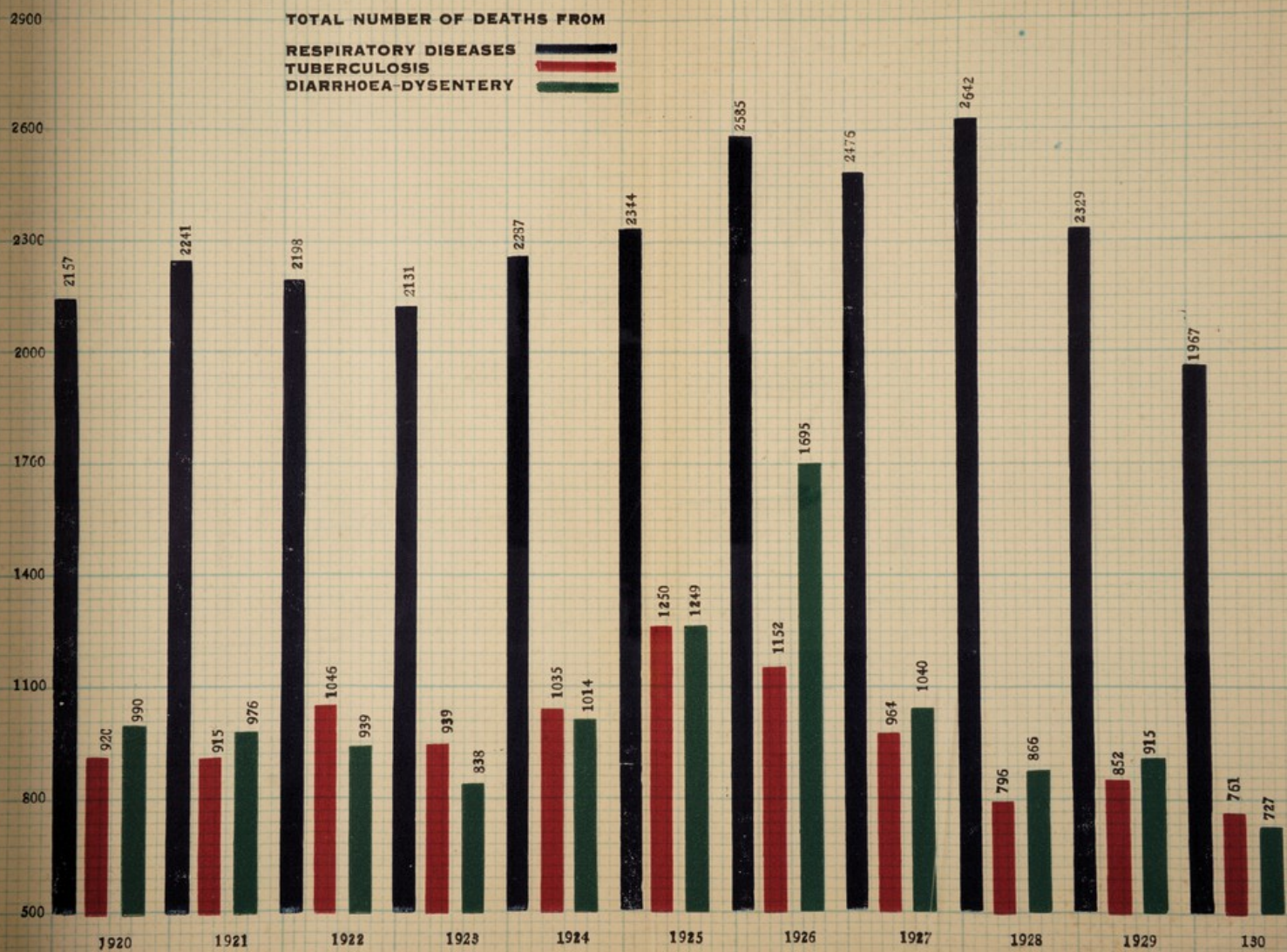
TOTAL NUMBER OF DEATHS FROM PLAGUE, SMALL-POX, AND CHOLERA FOR THE PAST TEN YEARS.













TOTAL NUMBER OF DEATHS FROM

RESPIRATORY DISEASES  
TUBERCULOSIS  
DIARRHOEA DYSENTERY

2000

1500

1000

500

0

1000

1500

2000

2500



1901

1911

1921

1931

1941

1951



## VACCINATION REPORT FOR THE CITY OF RANGOON.

FOR THE YEAR 1930-31.

The total number of vaccinations performed during the year 1930-31 was 2,06,859. This figure includes 1,82,247 vaccinations performed among passengers on arrival of Steamers from other Ports, by the Corporation Vaccinators under instructions of the Port Health Authorities and 332 vaccinations performed by Private Medical Practitioners. The Table below gives the comparative figures for three years :—

Year.	Vaccinations in Town by Corporation Staff.		Vaccinations by Private Medical Practitioners.		Ship Vaccinations	Total.
	Primary.	Re-vaccinations.	Primary.	Re-vaccinations.		
1930-31	8,176	16,104	220	112	1,82,247	2,06,859
1929-30	9,406	21,002	230	325	2,16,854	2,47,817
1928-29	9,538	28,661	240	505	1,86,966	2,25,910

The number of successful vaccinations was 11,431 showing an increase of 809 as compared with the figures of 1929-30 and a decrease of 3,845 as compared with the figures of 1928-29.

6,178 children under the age of six years were successfully vaccinated showing an increase of 1,188 and a decrease of 1,613 as compared with figures of 1929-30 and 1928-29 respectively.

3,257 vaccinations were performed in Rangoon Central Jail.

**Staff.**—The total number of vaccinators employed during the year was 21 excluding 11 Lady Health Visitors and Nurse-Midwives who help to a slight extent in vaccinating women and children.



The work of these Vaccinators is supervised by the Assistant Health Officers and Medical Registrars of the respective divisions.

The 4 temporary Vaccinators entertained in July 1928 for vaccination of in-coming passengers from other Ports continued to work at the Port Health Station under the supervision of the Port Health Officer.

**Cost.**—The cost per head per vaccination during the year was 0-2-10 and that of each successful case was Rs. 3-4-0 as compared with 0-2-8 and Rs. 3-14-1, respectively in the year 1929-30, details of which are given below:—

Year.	Primary Vaccination in Towns.	Re-vaccinations in Town.	Ship vaccinations.	Total Vaccinations.	Total suc: cases (by Staff & Private Practitioners.)	Total expenditure including salaries of Asstt. R. Vs.	Average cost per suc: Vaccination.	Average cost per vaccination.
						Rs.	Rs.	Rs.
1930-31	8,396	16,216	1,82,427	2,06,859	11,431	37,154-6-9	3- 4-0	0-2-10
1929-30	9,636	21,327	2,16,854	2,47,817	10,622	41,229-15-9	3-14-1	0-2-8

The average cost of each successful vaccination performed by the Corporation staff in the town was Rs. 2-10-6 and that of each vaccination was Rs. 1-3-6.

**Lymph:**—Lymph was obtained from Meiktila throughout the year. Of 63,880 tubes of vaccine lymph obtained, 15,589 tubes were issued to the Corporation Vaccinators, 43,278 to the Port Health Station and 1,803 to Private Medical Practitioners, etc., leaving a balance of 3,219 tubes at the end of the year.

**Prosecutions:**—There was no prosecution for failure to report Small-pox cases.

Three prosecutions were instituted under the Vaccination Act and all are still pending in Court.

**Small-pox:**—The total number of attacks for the year 1930-31 was 34 with 6 deaths as compared with 43 attacks and 14 deaths during the year 1929-30 and 315 attacks and 125 deaths during the year 1928-29.

Annual inspection of School children is generally carried out in the months of June and July and all children found unprotected are vaccinated or served with notices to be vaccinated.

During the year under report 149 Schools were inspected and out of 22,240 children inspected 3,488 were vaccinated.



Systematic inspection and vaccination of all Mills and Cooly barracks are carried out from January to March during the time when immigration is at its height. 51 Mills were inspected and out of 9,353 coolies inspected, 4,514 were vaccinated.

**Rules for Re-vaccination:**—Under the provisions of Section 12-A of the Burma Vaccination Law Amendment Act, 1909, the Corporation with the sanction of the Local Government have framed rules for re-vaccination of any person who has attained the age of 12 years and has been a resident of this City for the past one month or over. Action is now being taken to enforce these rules.

K. R. DALAL,

L.M. & S., D.T.M., D.P.H.,

HEALTH OFFICER,

Corporation of Rangoon.

Dated, Rangoon :

*The 23rd April, 1931.*



# ANNUAL REPORT ON THE WORKING OF THE CONTAGIOUS DISEASES HOSPITAL,

Municipal Corporation of Rangoon.

For the Year Ending 31st December 1930.

**Population of Rangoon 3,45,505 :—**This report has been drawn up in accordance with the instructions contained in the Circular Memorandum No. 16706-1R-14, dated Rangoon, the 13th November 1930, issued by the Inspector-General of Civil Hospitals, Burma, and all the information given here follows the sequence given therein and the paragraphs have been correspondingly numbered for purposes of reference :—

**I. Class of hospital and Date of opening.**—This hospital was transferred to the Municipal Committee of Rangoon on the 1st October 1920 and would thus be placed under the classification—Class III, Local Fund.

**II. Hospital Buildings.**—These consist of three main groups of buildings for the accommodation of patients; the first group consisting of nine large wards and holding 228 beds is reserved for Burmese and Indian male patients; the second of three small wards containing 24 beds in all for the female patients of the same two Communities and the third of three wards with 18 beds for European and Anglo-Indian patients of both sexes.

**Structure.**—The first two groups of buildings have a raised pucca flooring with bamboo mat walling and dhunee leaf roofing and the third has a pucca flooring with asbestos tile roofing.

**Subsidiary Buildings.**—(1) A main building consisting of three rooms, one of which is used as an office, the other as a dispensary, and the third as Sub-Assistant Surgeons' Duty room.

(2) Kitchens—three in all—one for the Burmese and Indian patients, the second for the Europeans and Anglo-Indians, and the third has been reserved for the Hindus who refuse to take food handled by others owing to caste scruples.

(3) Nurses' Duty room.

(4) Quarters for the Menial staff.

(5) Mortuary.

(6) Store-rooms.

(7) Dhoby Wash-house.



All these buildings are located in different parts of the compound according to their needs and convenience.

The following new works were carried out during the year under report:—

(1) Balance payment for constructing store-room referred to in last year's report Rs. 683-14-0.

(2) Balance payment for constructing kitchen referred to in last year's report Rs. 16-10-0.

(3) Renewing the roof of European ward and Nurses' Duty room—Rs. 1,953-15-0.

III. **Hospital Equipment.**—There is nothing in particular to state regarding the Surgical and General equipment of this hospital. Everything necessary for its proper maintenance has been maintained.

IV. **Hospital Staff.**—Dr. B. P. Srivastava, M.B., B.S., D.P.H., was in charge of the hospital till 16th March 1930 after which Dr. K. P. Pillai, M.B., B.S., D.P.H., took over charge of the Hospital.

The subordinate medical staff of the hospital consists of one Assistant Surgeon and three Sub-Assistant Surgeons.

The permanent staff of the hospital during the year under report consisted of the following:—

1 Medical Officer.	6 Female Attendants.
1 Assistant Surgeon.	16 Ward-Sweepers.
3 Sub-Assistant Surgeons.	6 Female Sweepers.
1 Sister-in-Charge.	2 Cooks.
7 Nurses.	1 Waterman-Lampman.
1 Clerk-Steward.	2 Office peons.
2 Compounders.	2 Gate Durwans.
16 Wardboys.	2 Dhobies.

1 Mali.

The three Sub-Assistant Surgeons work in shifts of two for day and one for night duty in rotation so that there is one Sub-Assistant Surgeon always on duty both day and night. The nurses work in shifts of four for day and three for night duty in rotation. The ward-boys, ward-sweepers, female attendants and female sweepers work in shifts of half for day and half for night. The Sister-in-Charge is responsible for the work of Nurses and Ward Attendants.



No extra temporary staff was engaged during the year under report.

## V. Hospital Management and Finance.

Since the transfer of the hospital to the control of the Corporation all the charges necessary for the proper up-keep of the hospital have been borne by the Corporation. The Government of Burma has been contributing Rs. 40,000 every year towards the maintenance of this and the Observation Hospital.

The following Table gives the number of patients admitted into the hospital from within Municipal limits as compared with those from outside the Municipal area during the year under report :—

Within Municipal limits.	Outside Municipal limits.	Total.
685	147	832

## VI. Hospital Patients.—General Statistics.

TABLE NO. I.

Diseases.	Patients remaining in Hospital on 31st December 1929.	Number of patients admitted during the year 1930.	Total number treated.	Dis-charged cured.	Died.	Case mortality per cent.	Patients remaining in hospital on 31st December 1930.
Plague	...	18	18	3	14	77.77	1
Cholera	1	23	24	12	12	50.00	...
Small pox	1	40	41	35	6	14.63	...
Chicken-pox	5	404	409	406	...	...	3
Measles	1	111	112	97	2	1.79	13
Mumps	6	42	48	48	...	...	...
Diphtheria	...	14	14	10	3	21.43	1
Erysipelas	...	13	13	10	1	7.69	2
Influenza	...	...	...	...	...	...	...
Cerebro-Spinal	}	2	2	...	2	100.00	...
Meningitis							
Diarrhoea							
Adenitis	...	6	6	6	...	...	...
All other diseases	3	155	158	129	28	17.72	1
GRAND TOTAL ...	17	832	849	759	69	8.13	21



(a)

TABLE No. II.

1929.			1930.		
Male.	Female.	Total.	Male.	Female.	Total.
797	97	894	721	128	849

Table No. III.

Voluntary Admission.		Those sent by the Health Department, Port Trust Authorities, Rangoon General Hospital, Sri Ram Krishna Hospital, etc.	
1929.	1930.	1929.	1930.
332	333	562	516

(b) The total number of cases treated during the year under report was 849 of which 721 were males and 128 females, compared with the corresponding figures of 894, 797 and 97 of the previous year.

The total number of voluntary admissions was 333 compared with 332 in the previous year.

The following Table gives the percentage of voluntary admissions to the total number treated during the year as compared with that of the previous year :—

Table No. IV.

1929.	1930.
37.14	38.22

(c) The daily average attendance as compared with the previous year was as follows :—

Table No. V.

1929.	1930.
35	32



The largest number treated on any one day during the year was as follows:—

**Table No. VI.**

1929.	1930.
131	114

The respective dates on which this happened were the 7th March 1929 and 21st March 1930.

(d) The following Table gives the total number of deaths and death-rate per cent:—

**TABLE No. VII.**

1929.		1930.	
103	11.52	69	8.13

The total number of deaths during the year under report was 69 giving a death-rate of 8.13 per cent as compared with 103 and 11.52 per cent. of the previous year.

The general death-rate in an infectious diseases hospital is liable to great fluctuation according to the epidemic prevalence of one or more diseases. In this way only we can account for the lower death-rate in the year under report compared with the previous year.

The total number of beds available in the hospital for males and females is as follows:—

Males.	Females.	Total.
240	30	270

The following Table gives the percentage proportion of the different races treated:—

**TABLE No. VIII.**

Year.	Europeans and Anglo-Indians.	Burmese.	Mohammedans.	Hindus.	Other Classes.
1929	10.07	7.61	15.21	64.54	2.57
1930	11.54	6.48	15.67	63.72	2.59



The largest number of admissions have been from the Hindus and Moham-medans. Of the total number of cases treated there were 98 Europeans and Anglo-Indians, 55 Burmese, 133 Mohammedans, 541 Hindus and 22 of Other Classes, giving a percentage proportion as shown in Table No. VIII.

### VII. Prevailing Diseases.

The following Table gives the total number of the different infectious diseases treated during the year under report as compared with the previous year :—

TABLE No. IX.

Diseases.	1929.	1930.
Plague	39	18
Cholera	57	24
Small-pox	47	41
Chicken-pox	325	409
Measles	36	112
Mumps	170	48
Diphtheria	11	14
Erysipelas	9	13
Cerebro-Spinal Meningitis	2	2
Influenza	...	...

The following Table gives the total number of cases of different diseases treated during the year under report with the total number of deaths and the case mortality rate per cent of the respective diseases as compared with the previous year:—

TABLE No. X.

Diseases.	1929.			1930.		
	Total Number treated.	Number of deaths.	Case mortality per cent.	Total Number treated.	Number of deaths.	Case mortality per cent.
Plague	39	30	76.92	18	14	77.77
Cholera	57	28	49.12	24	12	50.00
Small-pox	47	11	23.40	41	6	14.63
Chicken-pox	325	...	...	409	...	...
Measles	36	...	...	112	2	1.79
Mumps	170	...	...	48	...	...
Diphtheria	11	...	...	14	3	21.43
Erysipelas	9	1	11.11	13	1	7.69
Cerebro-Spinal Meningitis	2	2	100.00	2	2	100.00
Influenza	...	...	...	...	...	...
Diarrhoea	7	...	...	4	1	25.00
Adenitis	12	...	...	6	...	...
All other Diseases	179	31	17.32	158	28	17.72

The 28 fatal cases recorded under all other diseases during the year were due to the following causes :—



Dysentery 6, Pneumonia 5, Pyrexia of uncertain origin 4, Tuberculosis of the Lungs 1, Tuberculous Diarrhoea 1, General Debility 1, Valvular Disease of the Heart 1, Syncope 1, Chronic Diarrhoea 1 and Gastro-Enteritis 7.

### PLAGUE.

18 cases of plague were treated during the year under report of which 14 were males and 4 females. There were 3 recoveries and 14 deaths (and 1 remaining at the end of the year) giving a case mortality of 77.77 per cent as compared with 76.92 per cent of the previous year. Out of 14 males, 12 died and out of 4 females, 2 died.

The following table gives the duration of the illness on the day of admission into the hospital:—

TABLE No. XI.

Total No. treated.	On 1st day.	On 2nd day.	On 3rd day.	On 4th day.	More than 4 days.
18	...	7	8	1	2

The following table gives a list of Plague cases that had proved fatal within six hours, twelve hours and twenty-four hours of their admission into the hospital:—

TABLE No. XII.

Total No. of deaths.	No. of deaths within six hours of admission.	No. of deaths within twelve hours of admission.	No. of deaths within twenty-four hours of admission.	Grand Total No. of deaths within twenty four hours of admission.
14	4	3	3	10

Out of the total of 14 deaths, 10 died within the first twenty-four hours of admission into the hospital, being in a more or less moribund condition at the time of admission.

The following table gives the variety of the disease with the total number of admissions, deaths, and the case mortality rate under their respective heads:—

TABLE No. XIII.

Varieties.	Total No. treated.	No. recovered.	No. died.	Case mortality rate per cent.
Bubonic ..	17	3	13	76.47
Pneumonic ..	...	...	...	...
Septicaemic ...	1	...	1	100.00
Cutaneous ..	...	...	...	...

From the above Table it will be seen that the largest number of cases admitted were of the Bubonic type, giving a case mortality of 76.47 per cent.



TABLE No. XIV.

Month.	No. admitted.	No. cured.	No. died.	Case mortality.
Remaining from previous year ...	Nil.			
January ...	2	1	1	50.00%
February ...	4	1	3	75.00
March ...	4	...	4	100.00
April ...	1	...	1	100.00
May ...	1	...	1	100.00
June ...	1	...	1	100.00
July ...	2	...	2	100.00
August ...	1	...	1	100.00
September ...	...	...	...	...
October ...	...	...	...	...
November ...	1	1	...	...
December ...	1	...	...	...
Grand Total ...	18	3	14	77.77

1 case was remaining at the end of the year.

### CHOLERA.

24 cases of Cholera were treated during the year of which 12 recovered and 12 died, giving a case mortality of 50.00 per cent. Of the 12 fatal cases, 1 died in the Ambulance, 2 died within 6 hours of admission, 3 died within twelve hours and 3 within twenty-four hours, giving a total of 9 cases who died within twenty-four hours of their admission into the hospital.

Of the total of 24 cases treated in the hospital, 17 were given intravenous saline injections on one or more occasions as required and of these 7 recovered and 10 died. Of the remaining, 6 cases were not given saline injections owing to their pulse and blood pressure being good, 5 recovered and 1 died.

One case was found dead in the Ambulance before he could be removed to the ward.

The following table gives the number of cases admitted, month by month, during the year under report with their respective number of recoveries, deaths and the case mortality per cent :—



TABLE No. XV.

Months.			No. admitted.	No. cured.	No. died.	Case mortality.
Remaining from previous year	...	...	1	1	...	...
January	...	...	3	...	3	100·00
February	...	...	3	1	2	66·66
March	...	...	1	1	...	...
April	...	...	1	...	1	100·00
May	...	...	9	6	3	33·33
June	...	...	5	2	3	60·00
July	...	...	...	...	...	...
August	...	...	...	...	...	...
September	...	...	1	1	...	...
October	...	...	...	...	...	...
November	...	...	...	...	...	...
December	...	...	...	...	...	...
Grand Total	...	...	24	12	12	50·00

## Small-Pox.

41 cases of Small-pox were treated during the year of which 33 were males and 8 females. Out of 41 cases treated, 35 recovered, and 6 died giving a case mortality rate of 14·63 per cent.

The following Table gives the total number of attacks and deaths in the males and females of the various communities. :—

TABLE No. XVI.

			Europeans & Anglo-Indians.		Burmese.		Mohammedans.		Hindus.		Other Classes.	
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Attacks	...	...	2	...	2	1	7	3	22	4	...	...
Deaths	...	...	...	...	...	1	...	...	3	2	...	...



The following Table gives the Seasonal variations of small-pox during the year as compared with the previous year :—

TABLE No. XVII.

Months.				1929.	1930.
Remaining from previous year	...	...	...	1	1
January	...	...	...	7	5
February	...	...	...	14	3
March	...	...	...	12	9
April	...	...	...	7	3
May	...	...	...	1	5
June	...	...	...	...	10
July	...	...	...	2	3
August	...	...	...	...	1
September	...	...	...	...	...
October	...	...	...	1	...
November	...	...	...	1	1
December	...	...	...	1	...
Grand Total				47	41

*Vaccinal condition of Small-pox cases during the year:—*

(a) Total number of protected cases 29.

The following Table gives a statement of the protected cases:—

TABLE No. XVIII.

No. protected by vaccination.	No. vaccinated & had previous attack of small-pox.	No. unvaccinated but had previous attack of Small-pox.	No. inoculated.	Total No. protected.
29	...	...	...	29

(b) The total number of unprotected cases was 12.

(c) Statement of adults and children protected and unprotected :—

TABLE No. XIX.

Protected.		Unprotected.	
Adults.	Children.	Adults.	Children.
29	...	7	5



(d) Statement of attacks amongst the unprotected :—

Table No. XX.

Variety.	1929.			1930.		
	No. of cases.	No. of deaths.	Case mortality rate.	No. of cases.	No. of deaths.	Case mortality rate.
Modified	...	...	...	...	...	...
Discrete	1	...	...	2	...	...
Confluent	11	6	54.54	9	3	33.33
Haemorrhagic	...	...	...	1	1	100.00
Total	12	6	50.00	12	4	33.33

(e) Statement of attacks amongst the protected :—

Table No. XXI.

Variety.	1929.			1930.		
	No. of cases.	No. of deaths.	Case mortality rate.	No. of cases.	No. of deaths.	Case mortality rate.
Modified	7	...	...	9	...	...
Discrete	12	...	...	7	...	...
Confluent	15	5	33.33%	11	...	33.33
Haemorrhagic	1	...	...	2	2	100.00%
Total	35	5	14.28%	29	2	6.90%

The following Table gives the total number of admissions, recoveries and deaths with case mortality of all the cases of Small-pox treated during the year :—

Table No. XXII.

Total No. treated.	Recovered.	Died.	Case mortality rate per cent.	Remaining at the end of the year.
41	35	6	14.63	...

From the various Tables given above, it will be seen that out of a total



of 41 cases of Small-pox treated in the hospital during the year, 29 were found to be protected and 12 unprotected.

Of the 29 protected, 9 had an attack of the modified type 7 Discrete, 11 Confluent and 2 Haemorrhagic, both of the Haemorrhagic type proved fatal

Of the 12 unprotected cases which included 5 children, 2 had an attack of the Discrete type, 9 Confluent and 1 of the Haemorrhagic type. 3 out of the Confluent type and the Haemorrhagic case proved fatal.

Of the 5 unprotected children, 1 had Discrete and 4 had Confluent type of the disease. 4 recovered and one died.

The ages of the unprotected children were as follows :—

Age.	0—12 months.	1—5 years.	5—10 years.	Total.
No. of children.	1	3	1	5

Of the 2 fatal cases amongst the protected group the following vaccinal conditions were noted :—

Character of vaccination.	One mark.	Two marks.	Three marks.	More than three marks.
Faint ...	...	...	...	1
Moderate ...	...	...	1	...
Prominent ...	...	...	...	...

The age group of the 2 fatal cases was as follows :—

1—5 years.	5—10 years.	10—20 years.	20—30 years.	30—40 years.	Above 40 years.	Total.
...	...	1	...	1	...	2

The following Table gives the total number of cases, varieties, and case mortality rate amongst the protected and the unprotected :—



TABLE No. XXIII.

Variety.	Protected.			Unprotected.		
	Admitted.	Died.	Case mortality rate.	Admitted.	Died.	Case mortality rate.
Modified ...	9	...	...	...	...	...
Discrete ...	7	...	...	2	...	...
Confluent ...	11	...	...	9	3	33.33
Haemorrhagic ...	12	2	100.00	1	1	100.00
Total ...	29	2	6.90	12	4	33.33

From a comparison of the above figures it will be noted that the severity of the disease and the death-rate are much higher amongst those unprotected by vaccination as compared to those that are vaccinated. Out of the 29 protected cases, only 2 died while out of the 12 unprotected as many as 4 died. Nearly 87 per cent. of the latter were of the severe type.

The following Table shows the prevalence of Small-pox from the year 1911 till the end of the year under report as revealed by the number of patients admitted into the hospital from year to year :—

TABLE No. XXIV.

Year.	Attacks.	Deaths.	Case mortality rate.
1911 ...	824	238	28.88
1912 ...	599	84	21.05
1913 ...	223	44	19.73
1914 ...	62	6	9.67
1915 ...	243	49	20.16
1916 ...	733	162	22.10
1917 ...	158	8	5.06
1918 ...	199	37	18.59
1919 ...	1,120	289	25.80
1920 ...	371	36	9.70
1921 ...	83	9	11.84
1922 ...	215	24	11.16
1923 ...	626	153	24.44
1924 ...	260	55	21.15
1925 ...	1,448	257	17.75
1926 ...	121	19	15.70
1927 ...	649	114	17.56
1928 ...	1,109	218	19.66
1929 ...	47	11	23.40
1930 ...	41	6	14.63

### Chicken-pox.

The total number of cases of Chicken-pox treated during the year under report was 409 which included 5 cases remaining from previous year. The



figure for the previous year was 325. There was no death amongst the cases treated.

### Measles.

112 cases of Measles were treated during the year. There were two deaths from those patients due to Broncho-Pneumonia, giving a mortality rate of 1.79 per cent; 97 recovered and 13 were remaining at the end of the year. During the previous year 36 cases were treated with no deaths.

### Mumps

48 cases were treated including 6 cases remaining from previous year, compared with 170 cases of the previous year. There was no death.

### Diphtheria.

14 cases of Diphtheria were treated during the year. Of these 10 recovered, 3 died and one was remaining at the end of the year, giving a case mortality rate of 21.43 per cent. 11 cases were treated in the previous year with no deaths.

### Erysipelas.

13 cases of Erysipelas were treated during the year of which 1 died giving a case mortality rate of 7.49 per cent compared with 9 cases, 1 death, and a mortality rate of 11.11 per cent of the previous year.

### Influenza.

There were no cases of Influenza either this year or the previous year.

### Cerebro-Spinal Meningitis.

2 cases of Cerebro-spinal Meningitis were treated; both of them died giving a case mortality of 100.00 per cent compared with 2 cases, 2 deaths and a case mortality rate of 100.00 in the year before. Lumbar puncture was performed in both the cases.

### Diarrhoea.

4 cases of Diarrhoea were treated of which 1 died giving a mortality of 25.00 per cent compared with 7 cases with no deaths in the previous year.

### Adenitis.

6 cases of Adenitis were admitted into the hospital as cases of suspected Plague but the bacteriological examinations of the smears from the buboes were negative.

### All other diseases.

Under this heading have been included all other diseases noted under their respective nomenclature in Statistical Form Medical I.



158 cases were included under this heading of which 28 proved fatal. These fatal cases were Dysentery 6, Pneumonia 5, Pyrexia of uncertain origin 4, Tuberculosis of the Lungs 1, Tuberculous Diarrhoea 1, General Debility 1, Valvular Disease of the Heart 1, Syncope 1, Chronic Diarrhoea 1 and Gastro-Enteritis 7.

VIII. All the Surgical work done at the hospital was of a minor character such as opening Buboës, lumbar puncture, etc.

IX. Expenditure:—		1925.	1930.
		Rs.	Rs.
(1)	Establishment	62,160	62,488
(2)	Medicines { European	2,323	1,420
	{ Country	267	179
(3)	Diet	8,980	7,758
(4)	Miscellaneous	4,314	5,326
(5)	Buildings { New Buildings	5,933	2,654
	{ Repairs	644	5,340
Total .....		84,621	85,165

The slight increase under 'Establishment' is due to the usual annual increments.

The decrease under 'Medicines' and 'Diet' is due to the less number of patients treated this year as compared to the previous year, viz. 849 this year against 894 in the previous year.

The increase under 'Miscellaneous charges' is due to electric current charges and also to the installation of fans and lights.

The increase under 'Buildings' is due to the repairs required on account of the peculiar nature of the buildings.

#### Treatment of any note.

**Plague.**—No special treatment has been adopted beyond attempting to maintain the heart's action under cardiac stimulants such as Camphor in oil, Digitalin, Strychnine, etc.

**Cholera.**—The treatment advocated by Sir Leonard Rogers has been adopted, and has given satisfactory results.

**Small-pox**—The eruptions are touched with a freshly prepared saturated solution of Potas Permanganas; in Confluent cases, the entire body is painted with same solution.



**Cerebro-Spinal Fever.**--No special treatment has been adopted beyond relieving the pressure by lumbar puncture and injecting Anti-meningococcus-serum, when necessary.

### Concluding Remarks.

The largest number of patients admitted into this hospital came from the poor, many of whom were in the last stages of disease and every effort is made to popularise the hospital amongst them.

There is, however, no doubt of the fact that the present building is so unsuitable for an infectious diseases hospital that its satisfactory administration is growing difficult day by day and it is earnestly hoped that the construction of the new hospital will be taken up as soon as possible.

Lastly, I have to place on record the satisfactory manner in which the hospital staff, one and all, have carried out their duties. The "Times Press" has to be thanked for its generosity in supplying this hospital daily with its Newspaper.

K. P. PILLAI,

M.B., B.S., D.P.H.,

Medical Officer,

Contagious Diseases Hospital.

Dated Rangoon :

The 29th January 1931.

IV. Staff.--The following is a list of the staff:--

1 Cook	2 Ward boys
1 Lampman-Waterman	2 Sweepers
2 Gate-keepers	1 Female Attendant
1 Mail	1 Female Sweeper



# ANNUAL REPORT

## ON THE WORKING OF THE MUNICIPAL OBSERVATION HOSPITAL, MUNICIPAL CORPORATION OF RANGOON.

For the Year ending 31st December 1930.

This hospital is purely an observation one for cases sent by the Port Health Authorities.

**I. Class of Hospital and the Date of opening.**—This hospital was transferred to the control of the Corporation on the 1st October 1920 and comes under Class III, Local Fund.

**II. Hospital Buildings.**—These consist of three large wards measuring 80' x 20' each constructed of pucca floor, mat walling and shingle roofing. Two of these wards are reserved for admission of male patients and the third for female patients. The hospital has accommodation for 80 beds.

### Subsidiary Buildings.

- (1) Sister's quarters consisting of a plank building 4 feet off site.
- (2) Kitchen for the general use of the Hospital.
- (3) Two extra cook rooms for use of those patients who prefer to cook their own food.
- (4) Two sets of latrines for males and females respectively.
- (5) Separate washing and bathing places for the use of female patients.
- (6) Servants' quarters and kitchens.

**III. Equipment.**—There is not much to say regarding the equipment of this hospital as this is used purely for observation purposes.

**IV. Staff.**—The following is a list of the staff :—

2 Ward-boys	1 Cook
2 Sweepers	1 Lampman-Waterman
1 Female Attendant	2 Gate Durwans
1 Female Sweeper	1 Mali



**V. Hospital Finance and Management :—**All the charges incidental to the proper up-keep of the hospital have been borne by the Corporation, the Local Government contributing Rs. 40,000 per year towards the maintenance of this and the Contagious Diseases Hospital.

**VI. Hospital Patients :—**

1929.			1930.		
Male.	Female.	Total.	Male.	Female.	Total.
645	91	736	463	48	511

The total number of cases treated during the year was 511 as compared with 736 in the previous year.

*Daily Average Attendance :*

1929.	1930.
6	4

The largest number of cases in the hospital on any one day was 18 compared to 34 of the previous year. The respective dates on which this occurred were 11th November 1930 and 30th October 1929.

There was no death during the year under report. This hospital is used only for observation purposes and any case showing any signs of illness is immediately transferred to the Contagious Diseases Hospital.

The following Table shows the percentage proportion of various Communities treated :—

Year.	Europeans & Anglo-Indians.	Burmese.	Mohammedans.	Hindus.	Other Classes.
1929	Nil.	0.41	28.80	66.31	4.48
1930	Nil.	0.20	29.94	65.56	4.30



The following Table gives the total number of cases found suffering from various diseases on or after admission into the hospital :—

Diseases.			1929.	1930.
Plague	...	...	...	...
Cholera	...	...	...	...
Small-pox	...	...	...	...
Chicken-pox	...	..	1	...
Measles	...	...	2	2
Mumps	...	..	2	...
Diphtheria	...	...	...	..
Erysipelas	...	...	...	..
Cerebro-Spinal Meningitis	...	..	..	..
Influenza	...	...	..	2
Diarrhoea	...	...	1	2
Adenitis	...	...	1	3
No Appreciable diseases	...	...	257	203
All other diseases	...	...	472	299
Total			736	511

Out of a total of 511 cases treated during the year, 203 had no appreciable disease, giving a percentage of 39.73 to the total treated.

The 299 cases shown under all other diseases consisted of 238 cases of fever which came down in a few days and the following other diseases :—

Dysentery	....	3	Constipation	...	1
Syphilis	....	1	Synovitis	....	1
Malaria	....	2	Dropsy	....	1
Pneumonia	....	8	General Oedema	....	1
Round Worm	....	2	Multiple boils	....	2
Anaemia	....	1	Abscess	...	2
Bronchitis	...	1	Ulcer	....	1
Dyspepsia	....	1	Sores	....	1
Stomach ache	....	1	Scabies	....	1

There were only 4 cases of infectious diseases treated during the year out of a total of 511, giving a percentage of 0.78 to the total treated. They were Measles 2 and Influenza 2.



**Expenditure :—**

		1929.	1930.
		Rs.	Rs.
(1) Establishment	....	2,739	2,725
(2) Diet	....	390	240
(3) Miscellaneous charges	...	250	802
		<hr/>	<hr/>
	Rs.	3,379	Rs. 3,767
		<hr/>	<hr/>

The decrease under "Diet" is due to fewer number of patients treated this year as compared to last year, viz. 511 this year to 733 in the previous year.

The increase under "Miscellaneous charges" is due to expenditure on re-wiring of electrical connections.

No expenditure has been shown under Medicines, as this is supplied by the Contagious Diseases Hospital.

K. P. PILLAI,

M.B., B.S., D.P.H.,

Medical Officer,

Municipal Observation Hospital,  
Rangoon.

DATED RANGOON,

The 29th January 1931.



# ANNUAL REPORT

## ON THE WORKING OF THE

## CORPORATION LABORATORY

### FOR THE YEAR 1930.

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The report is divided into three heads—(a) Chemical, (b) Bacteriological and (c) Miscellaneous.

#### A. Chemical.

During the year a total of 1,303 samples were analysed.

#### 1. Water.

360 Samples were analysed as follows:—

Source.				No. of samples examined.
Hlawga Lake	....	....	....	12
Taps, stand-pipes, etc.	....	....	....	9
Well	....	....	....	5
Tube Well	....	....	....	2
Pazundaung River and Creek	....	....	....	50
At Hlawga	....	....	....	282
				— —
Total				.... 360
				— —

Samples of water from Pazundaung Creek and River were examined at the instance of the Executive Engineer, Water and Sewerage, and along with other routine examination, special tests were also carried out to determine the relative amount of sediment.

At Hlawga, water samples were regularly examined as usual by the Assistant Analyst in connection with Chlorination of water. During the year the dose of Chlorine varied from 0·6—1·4 parts per million and the residual amount of available Chlorine was raised to 0·5—0·3 parts per million from April.



## 2. Aerated Waters.

19 samples, mostly Lemonade, were analysed, out of which 7 samples contained more than a trace of iron but within permissible limits. One sample was found to contain some wings, legs, etc., of flies.

## 3. Milk.

7 samples were analysed with the following results:—

Conforming to standard	....	....	3.00	4
Deficient in all respects	....	....	3.00	3
				<hr/>
		Total	....	7
				<hr/>

## 4. Milk Powder.

One sample was analysed and was found to be intermediate between "dried quarter skimmed milk" and "dried skimmed milk."

## 5. Condensed Milk.

29 samples were analysed out of which 12 samples did not conform to the standard. 5 samples (all full cream) were deficient in fat only and the remaining seven (all skimmed) deficient in Milk solids

Nature.	Satisfactory.	Unsatisfactory.	Total.
Full Cream, Sweetened	7	4	11
" " unsweetened	6	1	7
Skimmed, Sweetened	3	7	10
Sterilised Natural Milk	1	...	1
Total ...			<hr/> 29

## 6. Butter.

21 samples were analysed with the following results:—

Conforming to standard	....	....	...	13
Deficient with respect to whole butter only	....	....	....	4
" " butter fat only	....	....	...	1
" in both respects	....	...	....	3
				<hr/>
		Total	...	21
				<hr/>

Fourteen samples showed presence of Boric Acid in varying amounts.



### 7. Ghee.

Two samples were analysed both of which showed adulteration.

### 8. Tea.

20 samples were examined in all, out of these regular examination was made in the case of 14 samples, of which two did not conform to the Bengal Standard ; six samples were analysed for tanin only.

### 9. Coffee.

Only one sample was examined and found to be a mixture of coffee powder and 38 per cent of starch.

### 10. Syrup.

Six samples were analysed out of which only one was wholesome ; the remaining five samples contained varying amounts of poisonous metals.

### 11. Oil.

Two samples were analysed out of which one (cocoanut oil) contained 44 per cent of white oil.

### 12. Baking Powder.

One sample was analysed and found deteriorated, numerous maggots being present in it.

### 13. Prawn Powder.

One sample was examined for evidence of putrefaction but was found to be good.

The following samples of different foodstuffs were examined and found to be wholesome :—

14. Bread....	....	....	3
15. Vinegar	....	....	1
16. Arrowroot powder	....	....	2
17. Vermicelli	....	....	2
18. Ground Sweet Almond	....	....	2

Other miscellaneous samples included the following :—

19. Coal ....	....	....	5
20. Tar ....	....	....	2
21. Asphalt	....	....	3
22. Cement	....	....	1
23. Lagging	....	....	1
24. Chlorine Solution....	....	....	1
25. Stool for occult blood	....	....	2
26. Paint ...	....	....	1

(contained 9.69 % of  $\text{CaCO}_3$ )

27. Colouring matter ....	....	2
---------------------------	------	---

(one of them contained a high proportion of Iron Oxide.)



28. Damaged Enamel plate and  
packing for evidence of Sea  
water .... 1

29. Urine.

804 specimens were examined as follows:—

Contagious Diseases Hospital	36
Corporation Dispensaries & Depots ....	151
Private Medical Practitioners, etc. ...	617
Total ...	<u>804</u>

**B. Bacteriological.**

36,473 specimens were examined in all during the year under report

**Water.**

274 samples were examined as shown below:—

Hlawga Lake—Chlorinated	52
"    "    "    Unchlorinated	54
Tube Well	20
Taps, stand-pipes, etc. ...	112
Well	5
Pazundaung Creek & River	26
Miscellaneous	5
Total ...	<u>274</u>

Chlorinated water was, as in previous years, always maintained at a high standard of bacteriological purity showing absence of Lactose fermenting organisms in 100 c.c. and very few colonies on Agar.

Weekly samples of unchlorinated water from Hlawga were also examined along with the water from the Laboratory tap for the purpose of comparing the effects of chlorination and it was found that the Laboratory tap water which is connected direct to the main also maintained a high standard of bacteriological purity. Regular complete examination was made of the weekly samples of Unchlorinated water from Hlawga Lake and of these only four samples showed presence of faecal organisms of Class I.

Complete examinations were made in the case of all the samples of water from Pazundaung Creek and River together with the Chemical examination as stated before. They were all of low standard of bacteriological purity and several of them showed presence of faecal organisms of Class I.



Of the 20 tube well water samples, 5 contained Lactose fermenters in 5 c.c. and two in 10 c.c.; the rest were of a high standard of bacteriological purity.

The five Miscellaneous samples were examined for organisms of the Typhoid group with negative results.

#### Aerated Water.

16 samples chiefly Soda water were examined in all :—

High standard of bacteriological purity	...	10
Fair	" "	1
Low	" "	5
		<hr/>
Total ...		16
		<hr/>

#### Disinfectants.

Three samples of disinfectants were tested for the determination of Carbolic Coefficient.

The following specimen were examined for the presence of organisms of Typhoid group with negative results :—

Condensed Milk	....	....	....	3
Milk	....	....	....	1
Sherbet	...	....	....	2
Ice-Cream	....	....	....	1
				<hr/>
Total ...				7
				<hr/>

#### Rats.

33,957 rats were examined for Plague Bacilli of which 50 were found infected as shown in the following Table :—

Source.	+	-	Total.
Central East Depot ...	29	8,453	8,482
" West " ...	7	5,511	5,518
Pazundaung " ...	3	5,584	5,587
Kemmendine " ...	9	9,832	9,841
Dalla " ...	2	2,739	2,741
Kanaungto " ...	...	1,788	1,788
Total ...	50	33,907	33,957



## Specimens from Contagious Diseases Hospital.

535 specimens were examined.

Blood.	Stools.	Sputum.	Throat or Nasal swab.	Gland or Blister smear.	Pus, Urethral and other discharges.	Cerebro-spinal Fluid.	Vomit.
M. P. 24	C.B. 108	T. B. 13	B. Diphtheria 23	P.B. 17	G. C. 3	Meningococci 3	P. B. 1
P. B. 14	Amoeba or Cysts 105	Pneumococci 9	P. B. 2		Staphylococci 1		C. B. 1
L. D. bodies 1	Ova-Ankylo 72	Streptococci 2			T. B. 1		Pneumococci 1
Filaria 1	Ova R. worm 69	Staphylococci 5			P. B. 4		Staphylococci 1
Diff. count 5	Other Ova 10	B. Influenza 4			Sp. Pallida 1		Streptococci 1
	B. Shiga 19						
	B. Flexner 7						
	T.B. 4						
	P.B. 3						
45	397	33	25	17	10	3	5
Grand Total ...							535

## Specimens from Corporation Dispensaries and Depots.

381 specimens were examined as follows:—

Blood.	Stools.	Sputum.	Throat and Nasal swab.	Gland or Blister smear.	Pus, Urethral or other discharges.	Urine.
M.P. 27	C.B. 1	T. B. 19	B. Diphtheria 114	P.B. 1	G. C. 4	G. C. 2
P.B. 25	Amoeba or Cysts 38	Pneumococci 11			Staphylococci 1	B. Coli 1
T.A.B. 28	Ova, Ankylo 28	Streptococci 4			Sp. Pallida 2	
K.A. 2	Ova, R. worm 30	Staphylococci 8				
L.D. Bodies 2	Other Ova 8	Micro: Catarrh 3				
Filaria 2	B. Shiga 2	B. Influenza 1				
Sp. Rat bite 1	B. Flexner 1					
Diff. count 11	T.B. 2					
Haemoglobin 2						
100	110	46	114	1	7	3
Grand Total						381



## Specimens from Private Medical Practitioners, etc.

1,300 specimens were examined as shown in the following Table :—

Blood.	Stools.	Sputum.	Throat and Nasal swab.	Pus, Urethral and other discharges.	Urine.	Ulcer scrapings.
M.P. 107	Amoeba or Cysts. 142	T.B. 207	B. Diphtheria 6	G.C. 28	G.C. 36	Acarns scabiaci 1
T.A.B. 18	Ova, Ankylo 99	Pneumococci 118	Pneumococci 1	Staphylococci 9	Staphylococci 3	B. Lepra 1
K.A. 15	Ova, B. worm 100	Streptococci 78		Streptococci 1	B. Coli 14	
L.D. Bodies 8	Other Ova 10	Staphylococci 120		L. D. Bodies 1	T.A.B. 1	
B. Lepra 1	B. Shiga 15	M. Catar 12			T.B. 1	
Diff : Count 85	B. Flexner 1	B. Influenza 10			Pneumobacilli 1	
Total Count 10	T.B. 14	Sp. Bronchialis 1				
Haemoglobin 23	Occult Blood 1					
Colour Index 1						
268	382	546	7	39	56	12
					Grand	Total 1,300

## C. Miscellaneous.

Miscellaneous works comprised of the following:—

1. 25 packets were sterilised for different Depots.

2. The following materials were prepared and supplied to the Contagious Diseases Hospital, Dispensaries and Depots, etc :—

1. Distilled water	....	270 lbs.
2. Fly Paste	....	96 lbs.
3. Chlorine Solution	....	49½ lbs.

Corporation Laboratory,

The 1st April 1931.

D. M. GANGOLLI, M.Sc., B.A.,

Analyst,

Corporation of Rangoon.



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*Meteorological Data for the City of Rangoon during the year 1930.*

LATITUDE 16°46 North.

LONGITUDE 96°18 East.

Height of Cistern of Barometer above Sea-level—35·70 feet (Reduced level.)

Months.			READING OF THERMOMETER.			Degree of humidity complete saturation being 100.	Prevailing direction of wind.	RAINFALL.
			Dry.					Total fall of rain during the month.
			Maximum.	Minimum.	Mean daily value.			
January	...	...	90·8	64·8	77·8	81	N. 9 W.	0·0
February	...	...	92·4	67·2	79·8	81	N. 6 E.	0·05
March	...	...	94·5	71·0	82·7	84	N. 24 W.	1·97
April	...	...	97·7	74·9	86·3	82	S. 65 W.	0·01
May	...	...	91·5	76·1	83·8	85	S. 40 W.	20·41
June	...	...	87·0	76·0	81·5	89	S. 7 W.	13·55
July	...	...	85·3	75·6	80·5	93	S. 28 W.	30·01
August	...	...	85·5	75·5	80·5	91	S. 24 W.	23·25
September	...	...	85·9	76·5	81·2	91	S. 13 W.	15·56
October	...	...	91·2	76·9	84·1	85	N. 8 E.	3·63
November	...	...	90·6	74·8	82·7	84	N. 42 E.	2·23
December	...	...	91·8	69·3	80·5	78	N. 14 E.	0·20







Table No. 2.—Statement of Deaths by Registration

1	2	3	4			5			6
Registration Circles.	Area in square miles.	Average population per square mile.	Population (Census 1921.)			Number of Deaths Registered.			Number of deaths of males to every 100 deaths of females.
			Male.	Female.	Total.	Male.	Female.	Total.	
Newly Added Area ...	1.08	3,280.56	2,027	1,516	3,543	105	64	169	164.66
North Kemmendine ...	3.37	7,776.26	15,687	10,519	26,206	458	406	864	112.81
South Kemmendine ...	2.43	13,132.92	20,910	11,003	31,913	390	351	741	111.11
Lanmadaw ...	0.17	113,241.18	12,291	6,960	19,251	232	207	439	112.08
Taroktan ...	0.13	168,838.46	13,999	7,950	21,949	315	165	480	190.91
North-West Town ...	0.13	165,700.00	16,368	5,173	21,541	210	128	338	164.06
South-West Town ...	0.11	106,854.55	8,883	2,871	11,754	73	45	118	162.22
North-East Town ...	0.17	135,529.41	16,190	6,850	23,040	174	133	307	130.83
South-East Town ...	0.21	75,571.43	12,441	3,429	15,870	112	53	165	211.32
Botataung ...	1.25	34,174.40	13,648	5,671	19,319	381	186	567	204.84
Yegyaw ...			15,048	8,351	23,399	279	233	512	119.74
Theinbyu ...	1.39	26,762.59	23,288	13,912	37,200	548	466	1,014	117.60
Cantonment ...	1.35	4,793.33	4,540	1,931	6,471	59	30	89	196.67
Dala ...	6.58	4,774.16	11,731	3,926	15,657	167	128	295	130.47
Kanaungto ..			11,158	4,599	15,757	205	142	347	144.36
Tamwe ...	5.28	5,858.71	20,541	10,393	30,934	519	443	962	117.16
Port ..	...	...	13,400	401	13,801	...	...	...	...
Hospitals and other Public Institutions ...	...	...	...	...	...	1,651	482	2,134	342.53
Adventitious population ...	...	...	6,566	1,334	7,900	...	...	...	...
Rangoon River, Pegu River and Pazundaung creek ...	6.75	...	...	...	...	...	...	...	...
Total ...	30.40	11,365.30	2,38,716	1,06,789	3,45,505	5,878	3,662	9,541	160.51

° One death, sex unknown.



Circles during the year 1930.

7													8				
DEATHS PER 1,000 OF POPULATION FROM.													MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.				
Cholera.	Small-pox.	Measles.	Plague.	Enteric Fever.	Malaria.	Other Fevers.	Dysentery and Diarrhoea.	Tubercle of Lungs.	Respiratory Diseases.	Injury.	All other causes.	All causes.			Male.	Female.	Total.
												Male.	Female.	Total.			
...	...	...	..	...	·85	...	1·41	·85	9·03	·56	35·00	51·80	42·22	47·70			
...	...	...	·15	·08	·19	·27	2·14	2·14	4·88	·08	23·05	29·20	38·60	32·97			
·03	...	...	·12	·06	·19	·34	1·57	2·41	4·70	·06	13·72	18·65	31·90	23·22			
...	...	..	·05	·10	·15	...	1·14	1·51	5·71	...	14·08	18·87	29·74	22·80			
...	...	...	...	·04	·23	·14	·59	1·27	6·97	...	12·62	22·50	20·75	21·87			
...	...	...	...	...	·23	·14	1·11	·65	5·52	·05	7·98	12·83	24·74	15·69			
...	·08	...	...	...	...	·17	·34	·77	2·38	1·02	5·19	8·22	15·67	10·05			
...	...	...	...	·09	·17	·13	·87	1·78	3·51	...	6·77	10·75	19·42	13·32			
·13	...	...	...	·19	·13	·19	·76	·94	2·52	·13	5·42	9·00	15·46	10·39			
·05	...	...	·15	·46	·31	1·09	4·24	3·42	5·95	·31	13·30	27·91	32·80	29·35			
·04	...	...	·30	...	·43	1·02	2·09	1·07	4·19	·08	12·65	18·54	27·90	21·88			
·05	·05	...	...	·08	·19	·40	3·09	1·40	6·42	·05	15·24	23·53	33·50	27·26			
...	...	...	...	...	...	...	·62	·31	2·63	...	10·20	12·99	15·54	13·75			
·06	...	...	...	...	1·47	·57	1·47	140	4·73	·32	8·82	14·23	32·60	18·85			
...	·38	...	...	...	·76	·25	2·29	·44	5·90	·13	11·87	18·37	30·88	22·02			
·03	...	...	·10	·03	·55	·48	2·49	1·32	7·47	·10	18·52	25·26	42·62	31·10			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
·06	·04	·006	·11	·21	·38	·40	2·11	2·05	5·69	1·36	15·17	24·62	34·29	27·61	30·36	41·00	33·65



Table No. 3. —Deaths by Registration Circles during each month of the year 1930.

Registration Circles.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
Newly Added Area	14	13	16	11	14	22	16	13	8	14	13	15	169
North Kemmendine	76	63	78	74	65	75	89	73	76	69	62	64	864
South Kemmendine	70	62	79	55	44	63	74	59	56	53	48	78	741
Lanmadaw	53	28	25	35	27	33	35	43	32	35	46	47	439
Taroktan	46	27	37	34	38	44	44	36	48	36	47	43	480
North-West Town	23	28	35	20	25	30	36	28	29	29	26	29	338
South-West Town	8	3	11	15	24	5	16	10	5	12	4	5	118
North-East Town	36	21	29	21	18	29	27	34	15	23	30	24	307
South-East Town	17	12	15	15	12	14	9	11	9	19	14	18	165
Botataung	61	36	50	40	49	56	43	49	44	47	43	49	567
Yegyaw	56	55	41	45	31	53	43	41	37	37	41	32	512
Theinbyu	90	67	86	68	87	114	96	94	80	73	78	81	1,014
Cantonment	8	6	6	7	9	8	8	4	11	7	7	8	89
Dala	29	26	37	36	14	23	24	19	25	23	20	14	295
Kanaungto	34	19	30	29	30	31	32	33	29	25	23	32	347
Tamwe	86	82	83	88	60	79	85	82	80	78	76	83	962
Port	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other Public Institutions.	187	166	178	165	280	186	159	171	147	169	162	164	2,134
TOTAL	894	714	836	758	827	870	836	800	731	749	740	786	9,541







Table No. 4.—Deaths registered according

1	2		3		4		5		6		
Registration Circles.	Under 5 years.				5 years and under 10 years.		10 years and under 15 years.		15 years and under 20 years.		
	Census population 1921.										
	Male. 11,601.		Female. 11,513.		Population, census, 1921.		Population census, 1921.		Population census, 1921.		
	Under 1 year Births.		One and under 5 years.								
	Male 4,002.	Female. 3,972.	Male.	Female.	Male. 12,320	Female. 11,332	Male. 15,097.	Female. 10,624.	Male. 21,513.	Female. 11,269.	
	* Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
	Newly Added Area ...	35	14	14	10	1	...	2	1	3	1
	North Kemmendine ...	113	99	36	48	9	15	9	6	8	12
	South Kemmendine ...	139	112	38	29	13	8	4	4	6	6
Lanmadaw ...	61	54	20	24	...	4	2	5	8	6	
Tarektan ...	43	40	27	17	3	14	2	4	11	3	
North-West Town ...	55	37	21	17	5	1	2	2	5	4	
South-West Town ...	14	17	10	6	2	2	3	1	3	1	
North-East Town ...	40	34	20	18	4	4	...	3	3	8	
South-East Town ...	23	15	7	7	...	3	...	1	5	3	
Botataung ...	65	60	22	18	3	5	1	3	12	4	
Yegyaw ...	79	62	25	24	8	11	6	13	8	6	
Theinbyu ...	180	164	50	49	11	12	5	4	9	11	
Cantonment ...	16	8	7	4	2	1	1	...	1	...	
Dala ...	34	44	16	13	1	3	4	1	1	4	
Kanaungto ...	61	41	24	15	7	5	5	1	5	8	
Tamwe ...	148	113	48	45	14	10	13	2	9	24	
Port ...	...	...	...	...	...	...	...	...	...	...	
Hospitals and other Public Institutions ...	119	79	24	24	10	14	33	12	66	42	
TOTAL ...	1,225	993	409	368	93	112	92	63	163	143	
Ratio per mille ...	306.10		250.00								
Total deaths under 5 years	Male 1,634		Female 1,361								
Ratio per 1,000 ...	140.85		118.21		7.55	9.88	6.09	5.93	7.58	12.69	

\* In the case of children under 1 year of age the ratio should be calculated on the number  
The population figures on which ratio are to be



to age by Registration Circles during 1930.

7		8		9		10		11		12
20 years and under 30 years.		30 years and under 40 years.		40 years and under 50 years.		50 years and under 60 years.		60 years and upwards.		
Population census, 1921.		Population census, 1921.		Population census, 1921.		Population census, 1921.		Population census, 1921.		
Male. 1,30,132.	Female.	Male.	Female. 41,082.	Male. 41,578.	Female.	Male.	Female 16,259.	Male 6,475.	Female. 4,710	
Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		REMARKS.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female	Male.	Female.	
12	3	9	8	5	8	9	4	15	15	97 deaths excluded, age being unknown.
44	46	54	42	44	29	49	30	92	79	
30	38	40	40	36	35	23	21	56	58	
32	22	28	17	26	14	23	21	32	40	
37	16	54	14	47	15	45	15	46	27	
26	16	18	5	25	10	17	9	36	27	
7	5	13	3	3	2	7	3	11	5	
21	19	23	15	21	3	19	7	23	22	
15	4	17	6	15	4	6	2	24	8	
65	30	78	19	38	21	40	8	57	18	
25	26	32	22	39	15	23	12	34	42	
39	32	51	35	49	42	40	19	114	98	
2	2	5	3	5	3	8		12	9	
21	12	24	12	21	16	26	10	19	13	
13	10	24	18	15	14	15	13	36	17	
39	33	52	54	37	34	49	38	110	90	
...	...	...	...	...	..	...	...	...	...	
345	112	420	97	303	51	163	28	78	17	
773	426	942	410	729	316	567	240	795	585	
13-19		20-35		31-17		34-20		122-78		124-20

of births during the year, in all other cases on the number living at the time of census. calculated refer to the whole city under registration.



Table No. 5 —Deaths registered according to Class by Registration Circles during the year 1930.

1	2	3	4															
POPULATION ACCORDING TO CENSUS OF 1921.		RATIO OF DEATHS PER 1,000 OF POPULATION																
NUMBER OF DEATHS REGISTERED.																		
Registration Circles																		
Christians.	Hindus.	Mohammedans.	Buddhists.	Other Classes.	Total.	Christians.	Hindus.	Mohammedans.	Buddhists.	Other classes.	Total							
35	624	116	2,748	20	3,543	1	23	7	138	...	169	28.57	36.86	60.34	50.22	...	47.70	
1,473	6,550	2,529	15,321	333	26,206	47	206	90	521	...	864	31.91	31.46	35.59	34.02	...	32.97	
4,354	10,492	3,998	12,451	618	31,913	62	176	68	434	1	741	14.24	16.77	17.01	34.85	1.62	23.22	
359	5,566	1,366	10,946	1,014	19,251	4	74	27	334	...	439	11.14	13.30	19.77	30.53	...	22.80	
294	3,479	1,387	6,976	9,813	21,949	1	43	13	423	...	480	3.40	12.36	9.37	60.62	...	21.87	
678	7,672	10,638	1,388	1,165	21,541	6	124	178	25	5	338	8.85	16.17	16.73	18.01	4.29	15.69	
78	4,907	4,693	1,659	417	11,754	3	41	55	17	2	118	38.46	8.36	11.72	10.25	4.80	10.05	
3,797	9,311	5,403	3,200	1,329	23,040	26	141	70	67	3	307	6.85	15.14	12.96	20.94	2.26	13.32	
2,429	7,567	4,281	1,216	377	15,870	15	89	45	15	1	165	6.28	11.77	10.51	12.34	2.65	10.39	
1,111	9,059	3,908	4,840	401	19,319	20	273	108	166	...	567	18.00	30.14	27.64	34.30	...	29.35	
2,375	9,175	3,419	7,785	645	23,399	26	233	55	198	...	512	10.95	25.40	16.09	25.44	...	21.88	
3,833	14,032	6,105	12,712	518	37,200	142	349	195	328	...	1,014	37.05	24.88	31.94	25.81	...	27.26	
1,901	2,759	648	1,084	79	6,471	14	23	4	48	...	89	7.36	8.34	6.17	44.28	...	13.75	
234	6,919	2,470	5,806	228	15,657	6	115	25	149	...	295	25.64	16.62	10.12	25.66	...	18.85	
155	7,304	2,043	5,818	437	15,757	1	167	25	154	...	347	6.45	22.86	12.24	26.47	...	22.02	
1,116	11,358	4,103	14,013	344	30,934	6	246	153	525	...	962	34.05	21.65	37.29	37.49	...	31.10	
869	7,116	4,265	1,374	177	13,801	...	...	...	...	...	...	...	...	...	...	...	...	
Hospitals and other Public Institutions	...	...	...	...	...	128	979	300	625	85	2,134	...	...	...	...	...	...	
Adventitious Population	259	1,736	698	4,961	7,900	...	...	...	...	...	...	...	...	...	...	...	...	
Total	25,350	1,25,626	62,070	1,14,298	18,161	3,45,505	540	3,302	1,418	4,167	97	9,541	21.31	26.28	22.85	36.45	5.34	27.61

\* Race in 16 males and 1 female deaths shown unknown in Rangoon General Hospital.



Table No. 6.—Statement showing the birth-rate and Infantile Mortality in each Circle for the year 1930.

Circles.	Estimated normal population of 1930.	Deaths under 12 months of age.	Total recorded births.	Estimated birth-rate calculated on estimated normal population.	Infantile mortality per 1,000 births.	Remarks.
Newly Added Area ...	4,851	49	194	39.99	252.58	
North Kemmendine ...	25,344	212	846	33.88	250.59	
South Kemmendine ...	25,347	251	1,167	46.04	215.08	
Lanmadaw ...	14,856	115	440	29.62	261.36	
Taroktan ...	19,905	83	489	24.57	189.73	
North-West Town ...	12,020	92	349	29.03	233.61	
South-West Town ...	6,586	31	226	34.32	137.17	
North-East Town ...	16,836	74	363	21.56	203.86	
South-East Town ...	9,175	38	313	34.11	121.41	
Botataung ...	13,723	125	533	38.84	234.52	
Yegyaw ...	20,210	141	465	23.01	303.23	
Theinbyu ...	30,916	344	1,082	35.00	317.93	
Cantonment ...	3,578	24	42	11.74	571.43	
Dala ...	8,784	78	332	37.80	234.94	
Kanaungto ...	10,291	102	330	32.07	309.09	
Tamwe ...	23,022	261	803	34.88	325.03	
Port ...	1,007	...	...	...	...	
Hospitals and other Public Institutions ...	...	198	...	...	...	
Adventitious population.	5,069	...	...	...	...	
Total ...	2,51,520	2,218	7,974	31.70	278.15	



Table No. 7.—Statement showing the number of Deaths from

Months.	Cholera.			Small-pox.			Measles.			Plague.			Fevers.		
	1928	1929	1930	1928	1929	1930	1928	1929	1930	1928	1929	1930	1928	1929	1930
January ...	6	10	5	44	1	3	1	...	...	28	4	2	40	32	34
February ...	15	9	2	93	4	3	3	...	...	42	5	6	47	34	35
March ...	17	12	1	125	4	4	1	...	...	32	6	5	52	22	36
April ...	17	11	...	79	1	...	...	...	...	17	18	4	40	48	33
May ...	5	6	6	25	2	1	1	...	...	19	2	3	35	33	26
June ...	10	7	4	7	...	4	...	...	...	29	11	1	44	34	36
July ...	3	2	...	4	1	...	...	...	...	44	20	4	37	43	23
August ...	6	...	2	1	...	...	...	...	...	24	13	3	35	36	20
September ...	1	...	...	...	...	...	...	...	1	12	7	9	25	40	18
October ...	1	1	1	...	...	...	...	1	...	6	4	1	32	41	27
November ...	4	...	...	...	...	...	...	...	1	2	3	...	27	34	35
December ...	1	3	1	...	...	...	...	...	...	2	1	...	26	40	29
Total ...	86	61	22	378	13	15	6	1	2	257	94	38	440	437	352



various causes for 1928, 1929 and 1930.

Bowel complaints.			Respiratory Diseases.			Injuries.			Other causes.			Total.		
1928	1929	1930	1928	1929	1930	1928	1929	1930	1928	1929	1930	1928	1929	1930
82	61	81	276	261	220	24	27	15	449	540	534	950	936	894
68	67	47	268	283	208	28	32	31	468	468	382	1,032	902	714
86	66	61	286	278	234	17	13	20	496	471	475	1,112	872	836
98	58	50	271	277	243	22	20	23	416	471	405	960	904	758
81	65	47	279	264	192	19	24	174	416	411	378	880	807	827
119	97	101	305	262	233	19	15	68	525	461	423	1,058	887	870
79	136	111	324	265	245	22	21	27	519	609	426	1,032	1,097	836
72	90	69	328	225	230	25	23	19	520	535	457	1,011	922	800
42	77	44	243	226	223	21	17	16	545	556	420	889	923	731
43	66	33	263	276	199	24	22	22	577	557	466	946	968	749
50	68	32	261	274	215	23	20	26	516	473	431	883	872	740
46	64	51	285	242	234	28	14	28	549	526	443	937	890	786
866	915	727	3,389	3,133	2,676	272	248	469	5,996	6,078	5,240	11,690	10,980	9,541



Table No. 8.—Deaths registered from Cholera by Registration Circles during each month of the year 1930.

1	2												3			4			5
													Total.			RATIO OF DEATHS PER 1,000 OF POPULATION.			
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	
Registration Circles.																			Mean ratio per 1,000 during previous five years.
Newly Added Area	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Kemmendine	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
South Kemmendine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lanmadaw	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taroktan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North-West Town	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
South-West Town	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North-East Town	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
South-East Town	1	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	..	..	..
Botataung	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Yegyaw	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Theinbyu	..	..	..	..	1	..	..	1	..	..	..	1	1	..	..	..	..	..	..
Cantonment	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Dala	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Kanaungto	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Tamwe	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Port ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hospitals and other Public Institutions	4	2	..	..	4	3	..	..	..	..	..	..	13	..	13	..	..	..	..
Total	5	2	1	..	6	4	..	2	..	1	..	1	21	1	22	0'09	0'009	0'06	0'25



Table No. 9.—Deaths registered from Small-pox by Registration Circles during each month of the year 1930.

1	2												3			4		5
													TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.		
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	
Registration Circles.																		
Newly Added Area	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lanmadaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taroktan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North West Town	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
South-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Botataung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yegyaw	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kanaungto	1	2	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...
Tamwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other Public Institutions	2	...	1	...	...	3	...	...	...	...	...	...	3	...	...	...	...	...
Total	3	3	4	...	1	4	...	...	...	...	...	...	7	8	15	0.03	0.07	0.04
																		0.73



Table No. 10.—Deaths registered from Measles by Registration Circles during each month of the year, 1930.

1	2												3			4			5		
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 during previous five years.	
														Male.	Female.	Total.	Male.	Female.			Total.
Newly Added Area	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...
North Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lanmadaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taroktan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Botataung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	1	2	...	...	...	...
Public Institutions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	1	2	0'004	0'009	0'006	0'01



Table No. 11.—Deaths registered from Plague by Registration Circles during each month of the year 1930.

1	2												3			4			5
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 during previous five years.
Registration Circles.																			
Newly Added Area	...	...	...	...	...	...	...	...	...	...	...	...	2	...	4	...	...	...	...
North Kemmendine	...	...	...	...	...	...	...	1	...	1	...	...	3	...	4	...	...	...	...
South Kemmendine	1	...	...	1	1	...	...	...	1	...	...	...	2	1	4	...	...	...	...
Lanmadaw	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...
Tarokian	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Borataung	...	1	...	...	...	...	1	...	1	...	...	...	2	1	3	...	...	...	...
Yegyaw	...	...	...	...	...	...	1	...	6	...	...	...	3	4	7	...	...	...	...
Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamwe	...	1	...	2	...	...	...	...	...	...	...	...	1	2	3	...	...	...	...
Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other Public Institutions	1	4	4	...	2	1	2	2	...	...	...	...	14	2	16	...	...	...	...
Total	2	6	5	4	3	1	4	3	9	1	...	...	26	12	38	0.11	0.12	0.11	0.81



Table No. 12.—Deaths registered from Enteric Fever by Registration Circles during each month of the year 1930.

1	2												3			4			5			
													TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.						
Registration Circles.													Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 during previous five years.			
Newly Added Area...	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	...	...	...	...	...	...	...	...	...	...
North Kemmendine	...	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...
South Kemmendine	...	...	2	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Lanmadaw	...	...	...	...	1	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...
Taroktan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-West Town	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
North-East Town	...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...
South-East Town	1	...	1	1	1	2	2	...	...	1	...	...	...	8	1	1	3	...	...	...	...	...
Botataung	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Theinbyu	...	1	1	...	1	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...
Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Hospitals and other	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Public Institutions	4	8	5	3	3	1	4	5	3	3	6	4	...	38	11	49	...	...	...	...	...	...
Total	5	9	12	4	6	4	7	6	4	6	6	5	...	57	17	74	0.24	0.16	0.21	0.20	...	...



Table No. 13.—Deaths registered from Cerebro-Spinal Meningitis by Registration Circles during each month of the year 1980.

1	2										3			4			5
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			Mean ratio per 1,000 during previous five years.
														Male.	Female.	Total.	
Registration Circles.	Newly Added Area...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North Kemmendine...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South Kemmendine...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lannadaw	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...
	Taroktan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South-West Town...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
	North-East Town...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South-East Town...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Botataung	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
	Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tamwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hospitals and other Public Institutions	...	...	...	...	1	...	...	...	...	...	...	1	1	1	2	...
Total		...	...	...	...	1	...	1	...	...	...	1	2	2	3	5	0'008 0.03 0'01 0'03



Table No. 14.—Deaths registered from Diphtheria by Registration Circles during each month of the year 1930.

1	2												3			4			5
Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 during previous five years.
													Male.	Female.	Total.	Male.	Female.	Total.	
Newly Added Area...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North Kemmendine...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Kemmendine ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lanmadaw	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...
Taroktan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
North-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-West Town ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-East Town	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
South-East Town	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...
Botataung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Public Institutions	...	1	...	...	...	1	1	1	...	...	...	...	3	1	4	...	...	...	...
Total ..	...	1	...	...	...	1	1	2	...	...	...	3	3	5	8	0'009	0'05	0'02	0'02

Mean ratio per 1,000 during previous five years.



Table No. 15.—Deaths registered from Puerperal Septicaemia by Registration Circles during each month of the year 1930.

1	2												3			4		5	
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		Male.	Female.		Total.
		Male.	Female.	Total.															
Newly Added Area...	1	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	1.32	.56	
North Kemmendine...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
South Kemmendine...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	.09	.03	
Lanmadaw	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	.14	.05	
Taroktan	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	...	.13	.04	
North-West Town...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	.19	.05	
South-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
North-East Town ...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	
South-East Town ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	
Botataung	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	.29	.06	
Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dala	...	...	1	...	...	...	1	...	...	1	...	...	...	3	...	...	.76	.19	
Kanaungto	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	
Tamwe	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	.10	.03	
Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hospitals and other Public Institutions	3	3	4	3	...	...	2	...	...	2	...	1	2	20	...	...	...	...	
Total ...	4	3	5	4	...	3	...	...	...	3	1	4	4	31	...	0.29	0.09	0.08	



Table No. 16.—Deaths registered from Malarial Fever by Registration Circles during each month of the year 1930.

1	2												3			4		5		
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.		Mean ratio per 1,000 during previous five years.	
														Male.	Female.	Total.	Male.			Female.
Newly Added Area ...	1	...	...	...	1	...	...	...	...	1	...	...	...	3	3	1'48	...	...	.85	
North Kemmendine..	...	...	...	...	...	...	...	...	...	...	1	...	...	4	4	.25	.09	...	.19	
South Kemmendine..	...	2	...	...	2	1	1	...	...	...	1	...	...	2	2	.19	.18	...	.19	
Lanmadaw ...	...	...	...	...	...	1	...	...	...	...	1	...	...	2	2	.16	.14	...	.15	
Taroktan ...	...	...	2	...	...	...	1	...	...	1	...	...	...	4	4	.28	.12	...	.23	
North-West Town ...	1	1	...	...	...	...	...	1	...	...	...	2	...	5	5	.30	...	...	.23	
South-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
North-East Town ...	...	...	...	...	1	...	...	...	...	...	...	2	1	4	4	.25	...	...	.17	
South-East Town ...	1	...	...	...	...	...	...	...	...	...	...	...	1	2	2	.16	...	...	.13	
Botataung ...	...	...	1	...	...	...	...	...	...	2	...	1	...	5	5	.37	.18	...	.31	
Yegyaw ...	4	1	2	...	...	...	...	...	...	...	...	2	...	8	2	.53	.24	...	.43	
Theinbyu ...	...	...	2	2	1	...	...	1	2	...	1	1	...	7	...	.30	...	...	.19	
Cantonment ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dala ...	3	3	1	1	2	...	2	2	1	2	1	3	3	18	5	1'53	1'27	...	1'47	
Kanaungto ...	3	...	1	1	1	...	3	...	...	...	1	3	...	9	3	.81	.65	...	.76	
Tamwe ...	4	...	3	1	1	1	2	...	1	...	1	1	3	13	4	.63	.38	...	.55	
Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hospitals and other Public Institutions...	3	4	...	...	3	...	3	1	1	2	...	2	5	24	...	...	...	...	...	
Total ...	20	11	12	13	5	12	5	5	5	9	6	19	15	112	20	132	0'47	0'19	0'38	0'62



Table No. 17.—Deaths registered from other Fevers including Influenza by Registration Circles during each month of the year 1930.

1	2												3			4			5		
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
														Male.	Female.	Total.	Male.	Female.		Total.	
Newly Added Area	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North Kemmendine	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Kemmendine	1	2	1	2	2	...	2	...	...	1	...	1	...	...	6	5	11	29	45	34	Mean ratio per 1,000 during previous five years.
Lanmadaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taroktan	...	...	...	...	...	...	3	...	...	...	...	...	...	...	3	...	...	...	...	...	...
North-West Town	...	...	...	1	...	...	1	...	...	...	1	...	...	...	3	...	...	...	...	...	...
South-West Town	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
North-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	...	...	...	...
South-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	...	...	...	...
Botataung	1	...	...	...	...	...	...	...	1	...	...	...	...	...	10	11	21	...	...	...	...
Yegyaw	3	4	2	2	1	4	5	2	...	1	5	2	...	...	15	9	24	73	...	...	...
Theinbyu	1	4	4	1	5	3	...	...	...	...	...	3	...	...	16	9	25	69	...	...	...
Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala	2	4	1	...	...	...	1	...	...	1	...	...	...	...	6	3	9	51	...	...	...
Kanaungto	...	...	1	1	1	...	...	...	...	1	...	...	...	...	2	2	4	18	...	...	...
Tamwe	...	...	1	3	2	...	1	2	1	...	2	...	...	...	7	8	15	34	...	...	...
Port	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...
Hospitals and other Public Institutions	1	...	...	2	...	...	3	...	3	...	...	1	...	...	9	2	11	...	...	...	...
Total ...	9	15	12	16	14	20	10	9	9	5	15	9	7	85	56	141	0'36	0'52	0'40	0'44	



Table No. 17A.—Deaths registered from Influenza by Registration Circles during each month of the year 1930.

1	2												3			4		5		
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	TOTAL.	Male.		Female.	Total.
	Newly Added Area...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4	...	...	...
	North Kemmendine...	1	1	1	1	...	...	1	...	...	...	...	...	3	1	4	...	...	...	
	South Kemmendine...	...	...	...	...	...	3	...	...	...	...	...	...	3	...	...	...	...	...	
	Lanmadaw	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	
	Taroktan	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	
	North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	South-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	North-East Town	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	
	South-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Botataung	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	
	Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Theinbyu	...	1	...	...	...	1	...	...	...	...	...	...	1	1	2	...	...	...	
	Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Tamwe	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...	...	
	Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Hospitals and other	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Public Institutions...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total	1	2	1	...	...	5	3	...	...	1	...	...	9	4	13	0'04	0'04	0'11	

Mean ratio per  
1,000 during  
previous five  
years.



**Table No. 18.—Deaths registered from Diarrhoea and Dysentery by Registration Circles during each month of the year 1930.**

1	2												3			4		5	
	Registration Circles.												TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 during previous five years.
													Male.	Female.	Total.	Male.	Female.		
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 during previous five years.	
Newly Added Area	1	4	6	5	1	16	1	5	1	...	...	4	1	5	1.97	.66	1.41		
North Kemmendine	1	4	6	5	7	13	3	5	2	...	1	33	23	56	2.10	2.19	2.14		
South Kemmendine	1	4	1	1	9	13	7	...	2	2	7	24	26	50	1.15	2.36	1.57		
Lanmadaw	6	3	...	1	4	3	2	...	...	1	1	9	13	22	.73	1.87	1.14		
Taroktan	6	...	...	1	...	3	1	...	...	1	1	8	5	13	.57	.63	.59		
North-West Town	...	2	3	2	3	3	4	1	2	1	1	18	6	24	1.10	1.16	1.11		
South-West Town	...	1	...	...	...	1	...	...	...	...	...	3	1	4	.34	.35	.34		
North-East Town	3	...	1	2	2	3	2	...	...	2	3	14	6	20	.86	.87	.87		
South-East Town	1	2	2	...	...	...	1	...	...	2	4	8	4	12	.64	1.17	.76		
Botataung	12	3	7	5	12	8	11	9	2	4	5	62	20	82	4.54	3.53	4.24		
Vegya	5	9	1	4	2	6	5	2	2	5	2	26	23	49	1.73	2.75	2.09		
Theinbyu	9	5	6	10	9	18	8	8	5	4	8	65	50	115	2.79	3.59	3.09		
Cantonment	1	...	...	...	...	...	...	2	...	...	...	3	1	4	.66	.52	.62		
Dala	1	...	6	2	3	1	2	3	3	1	...	12	11	23	1.02	2.80	1.47		
Kanaungto	3	...	5	5	1	8	1	1	...	2	5	29	7	36	2.60	1.52	2.29		
Tamwe	12	5	8	7	4	9	5	3	5	3	6	44	33	77	2.14	3.17	2.49		
Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Hospitals and other Public Institutions.	19	9	15	6	6	18	18	10	9	2	7	104	31	135	...	...	...		
Total	81	47	61	50	47	101	111	69	44	33	51	466	261	727	1.95	2.44	2.11	3.34	



Table No. 19.—Deaths registered from Tubercle of Lungs by Registration Circles during each month of the year 1930.

1	2												3			4			5					
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			Male.	Female.		Total.	Mean ratio per 1,000 during previous five years.			
														Male.	Female.	Total.								
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Newly Added Area ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
North Kemmendine...	7	4	4	4	7	5	5	3	9	7	2	8	1	36	20	56	36	20	56	2.95	1.90	1.90	2.14	
South Kemmendine...	5	9	7	7	9	5	6	6	3	6	9	3	7	31	46	77	31	46	77	1.48	4.18	4.18	2.41	
Lanmadaw ...	2	...	...	...	1	2	4	5	4	3	4	3	1	22	7	29	22	7	29	1.79	1.01	1.01	1.51	
Taroktan ...	2	...	...	...	3	1	2	2	2	4	3	2	3	23	5	28	23	5	28	1.64	.63	.63	1.27	
North-West Town ...	...	...	...	...	1	1	...	1	1	2	3	...	1	7	7	14	7	7	14	.43	1.35	1.35	.65	
South-West Town ...	3	5	1	4	4	...	3	4	4	5	4	3	2	26	15	41	26	15	41	1.61	2.19	2.19	1.78	
North-East Town ...	1	1	2	2	...	2	2	...	2	1	...	3	1	11	4	15	11	4	15	.88	1.17	1.17	.94	
South-East Town ...	8	2	10	3	2	7	6	7	6	6	6	4	2	54	12	66	54	12	66	3.96	2.12	2.12	3.42	
Botataung ...	2	...	3	3	3	1	2	4	...	1	4	2	3	13	12	25	13	12	25	.86	1.44	1.44	1.07	
Yegyaw ...	2	1	5	5	5	3	7	5	6	5	4	4	5	31	21	52	31	21	52	1.33	1.51	1.51	1.40	
Theinbyu ...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	2	2	...	2	2	...	...	1.03	.31	
Cantonment ...	3	3	1	1	3	...	2	3	1	3	1	2	...	12	10	22	12	10	22	1.02	2.55	2.55	1.40	
Dala ...	1	2	1	1	...	...	...	...	...	...	1	...	...	4	3	7	4	3	7	.36	.65	.65	.44	
Kanaungto ...	1	4	3	3	6	1	4	5	3	4	3	3	4	23	18	41	23	18	41	1.12	1.73	1.73	1.32	
Tamwe ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Port ...	18	13	16	16	20	23	7	21	31	19	21	15	18	187	35	222	187	35	222	...	...	...	...	
Hospitals and other Public Institutions.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total ...	55	43	62	62	64	52	52	71	74	67	67	51	51	489	220	709	489	220	709	2.05	2.06	2.06	2.05	2.74



Table No. 20.—Deaths registered from Respiratory Diseases excluding Tubercle of Lungs by  
Registration Circles during each month of the year 1930.

1	2												3			4			5
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	Male.	Female.	Total.	Ratio of Deaths per 1,000 of Population.	Mean ratio per 1,000 during previous five years.
	Newly Added Area	2	5	3	3	1	3	4	2	2	2	2	3	24	8	16	32	11.84	9.03
	North Kemmendine	8	9	14	10	5	11	12	12	10	17	7	13	65	63	128	128	4.14	4.88
	South Kemmendine	17	12	17	14	12	16	14	15	8	2	12	11	90	60	150	150	4.30	4.70
	Lanmadaw	10	9	7	9	8	7	1	11	8	7	13	20	71	39	110	110	5.78	5.71
	Taroktan	9	12	14	10	11	15	19	12	12	10	15	14	106	47	153	153	7.57	6.97
	North-West Town	11	7	12	5	12	10	12	10	13	6	9	12	78	41	119	119	4.76	5.52
	South-West Town	1	...	2	3	2	2	5	4	...	6	2	1	18	10	28	28	2.23	2.38
	North-East Town	11	6	9	8	6	9	6	7	4	2	7	6	51	30	81	81	3.15	3.51
	South-East Town	2	3	5	6	4	3	4	2	2	4	2	3	32	8	40	40	2.57	2.52
	Botataung	12	7	9	13	8	12	4	10	10	6	10	14	76	39	115	115	2.57	5.95
	Yegyaw	11	12	9	11	2	8	8	8	8	6	5	10	64	34	98	98	4.25	4.19
	Theinbyu	23	17	12	21	21	27	26	18	17	12	23	22	123	116	239	239	5.28	6.42
	Cantonment	...	3	1	2	...	...	3	...	2	2	2	2	15	2	17	17	3.30	2.63
	Dala	7	6	10	8	5	6	6	4	6	7	6	3	42	32	74	74	8.15	4.73
	Kanaungto	6	3	6	8	11	15	8	7	8	5	8	8	64	29	93	93	5.78	5.90
	Tamwe	18	26	18	16	20	15	19	15	25	20	20	19	138	93	231	231	6.72	7.47
	Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hospitals and other Public Institutions	17	28	24	32	12	22	23	19	21	18	21	22	213	46	259	259	...	...
	Total	165	165	172	179	140	181	174	156	156	132	164	183	1,270	697	1,967	1,967	5.32	5.69
		165	165	172	179	140	181	174	156	156	132	164	183	1,270	697	1,967	1,967	5.32	7.16



Table No. 21.—Deaths registered from Injuries by Registration Circles during each month of the year 1930.

1	2												3			4			5
													TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			
													Male.	Female.	Total.	Male.	Female.	Total.	
Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 during previous five years.
Newly Added Area ...	...	...	...	...	...	1	...	...	...	...	1	...	2	...	2	.99	...	.56	...
North Kemmendine...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	2	.06	.09	.08	...
South Kemmendine...	...	1	...	...	...	...	...	...	1	...	...	...	2	...	2	.09	...	.06	...
Lanmadaw ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taroktan ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-West Town ...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	.06	...	.05	...
South-West Town ...	...	...	...	...	12	...	...	...	...	...	...	...	7	5	12	.79	1.74	1.02	...
North-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-East Town ...	...	...	2	...	...	5	...	...	...	...	...	...	2	...	2	.16	...	.13	...
Botataung ...	...	...	...	...	...	...	...	...	...	...	...	1	5	1	6	.37	.18	.31	...
Yegyaw ...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	2	.13	...	.08	...
Theinbyu ...	...	1	...	...	...	...	...	...	1	...	...	...	1	...	2	.04	.07	.05	...
Cantonment ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala ...	1	1	...	2	...	...	...	...	...	...	...	1	2	3	5	.17	.76	.32	...
Kanaungto ...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	.18	...	.13	...
Tamwe ...	1	...	...	...	1	...	...	...	...	...	...	...	2	1	3	.10	.10	.10	...
Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other Public Institutions	13	28	17	21	160	62	26	18	13	22	24	24	363	64	*428	...	...	...	...
Total ...	15	31	20	23	174	68	27	19	16	22	26	28	392	76	469	1.64	0.71	1.36	0.74

\* Sex shown unknown of 1 death from earthquake in General Hospital.



Table No. 22.—Deaths registered from All Other Causes by Registration Circles during each month of the year 1930.

1	2												3			4			5		
	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
														Male.	Female.	Total.	Male.	Female.		Total.	
Newly Added Area...	10	8	13	7	12	18	10	10	10	5	10	10	11	69	55	124	34.04	36.28	35.00	Mean ratio per 1,000 during previous five years.	
North Kemmendine ...	60	45	52	49	48	52	58	45	45	51	45	51	48	312	292	604	19.89	27.76	23.05		
South Kemmendine ...	45	35	51	26	22	29	40	34	39	39	39	25	53	228	210	438	10.90	19.08	13.72		
Lanmadaw ...	35	16	17	24	15	18	26	25	21	21	22	28	24	125	146	271	10.17	20.98	14.08		
Taroktan ...	29	15	19	21	24	21	20	21	31	31	23	28	25	171	106	277	12.21	13.33	12.62		
North-West Town ...	11	17	17	11	10	16	19	13	13	13	17	13	15	98	74	172	5.99	14.30	7.98		
South-West Town ...	7	1	7	12	6	3	5	4	4	5	5	2	4	38	23	61	4.28	8.01	5.19		
North-East Town ...	19	10	13	5	9	15	14	21	21	6	17	15	12	76	80	156	4.69	11.68	6.77		
South-East Town ...	10	6	4	9	6	8	5	4	4	6	13	6	9	51	35	86	4.10	10.21	5.42		
Botataung ...	28	23	20	17	25	18	17	21	21	15	27	21	25	157	100	257	11.50	17.63	13.30		
Yegyaw ...	31	29	24	25	24	30	21	30	30	18	21	27	16	147	149	296	9.77	17.84	12.65		
Theinbyu ...	55	37	55	30	47	52	47	59	49	49	50	43	43	300	267	567	12.88	19.19	15.24		
Cantonment ...	7	3	5	5	9	7	4	4	4	6	5	5	6	41	25	66	9.03	12.95	10.20		
Dala ...	12	9	18	19	8	13	12	11	11	10	11	8	7	74	64	138	6.31	16.30	8.82		
Kanaungto ...	20	12	14	14	14	11	16	24	19	19	18	10	15	93	94	187	8.33	20.44	11.87		
Tamwe ...	50	46	50	53	30	47	48	57	48	48	47	49	48	289	284	573	14.07	27.33	18.52		
Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Hospitals and other Public Institutions	105	70	96	78	69	65	64	74	78	78	96	90	82	681	286	967	...	...	...		...
Total ...	534	382	475	405	378	423	426	457	420	420	466	431	443	2,950	2,290	5,240	12.36	21.45	15.17	16.58	



Table No. 23.—Deaths from Diarrhoea and Dysentery registered according to Class by Registration Circles during the year 1930.

1	2	3	4																	
	Population according to Census of 1921.		Number of deaths registered.																	
Registration Circles.	Hindus.	Mohammedans.	Buddhists.	Other Classes.	Total.	Christians				Hindus.		Moham- medans.		Buddhists		Total.	Male.	Female.	Total.	
						Diarrhoea.	Dysentery.	Diarrhoea.	Dysentery.	Diarrhoea.	Dysentery.	Diarrhoea.	Dysentery.	Diarrhoea.	Dysentery.					Diarrhoea.
Newly Added Area	35	624	116	2,748	3,543	...	2	...	1	1	...	6	2	...	9	5	1.97	.66	1.41	
North Kemmendine	1,473	6,550	2,529	15,321	26,206	2	...	...	13	11	...	9	10	...	56	56	2.10	2.19	2.14	
South Kemmendine	4,354	10,492	3,998	12,431	31,913	2	1	...	7	3	...	3	20	...	50	22	1.15	2.36	1.57	
Lamadau	359	5,566	1,366	10,946	19,251	...	...	...	3	3	...	1	3	...	22	13	.73	1.87	1.14	
Taroktan	294	3,479	1,387	6,976	21,949	...	...	...	2	2	...	2	5	...	13	24	.57	.63	.59	
North-West Town	678	7,672	10,638	1,388	21,541	...	...	...	9	2	...	9	1	...	24	1.10	1.10	1.16	1.11	
South-West Town	78	4,907	4,693	1,659	11,754	...	...	...	2	1	...	...	1	...	4	4	.34	.35	.34	
North-East Town	3,797	9,311	5,403	3,200	23,040	2	...	...	5	6	...	1	4	...	20	20	.86	.87	.87	
South-East Town	2,429	7,567	4,281	1,216	15,870	...	1	...	4	2	...	3	11	...	12	12	.64	1.17	.76	
Botataung	1,111	9,059	3,908	4,840	19,319	5	...	...	44	7	...	4	...	...	82	4.54	3.53	4.24	4.24	
Yegyaw	2,375	9,175	3,419	7,785	23,399	2	...	...	19	12	...	2	3	...	49	1.73	2.75	2.09	2.09	
Theinbyu	3,833	14,032	6,105	12,712	37,200	9	7	...	34	24	...	10	11	...	115	2.79	3.59	3.09	3.09	
Cantonment	1,901	2,759	648	1,084	6,471	1	2	...	...	...	...	...	...	...	4	.66	.52	.62	.62	
Dala	234	6,919	2,470	5,806	15,657	...	...	...	8	2	...	2	9	...	23	1.02	2.80	1.47	1.47	
Kanaungto	155	7,304	2,043	5,818	15,757	...	...	...	7	13	...	1	8	...	36	2.60	1.52	2.29	2.29	
Tamwe	1,116	11,358	4,103	14,013	30,934	3	...	...	10	17	...	10	17	...	77	2.14	3.17	2.49	2.49	
Port	869	7,116	4,265	1,374	13,801	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and Other	...	...	...	...	...	4	6	21	45	7	...	13	10	...	135	...	...	...	...	...
Public Institutions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Adventitious Popu- lation	259	1,736	698	4,961	7,900	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	25,350	1,25,626	62,070	1,14,298	3,45,505	30	21	189	153	68	50	115	88	5	8	727	1.95	2.44	2.11	2.11



**Table No. 24.—Statement of the number of deaths from Phthisis and Respiratory Diseases and the ratio of deaths per 1,000 of the population in males and females, circle by circle.**

Registration Circles.	Phthisis.						Respiratory diseases excluding Phthisis.					
	Number and Ratio of deaths per 1,000 of population.						Number and Ratio of deaths per 1,000 of population.					
	Males.		Females.		Total.		Males.		Females.		Total.	
	Num- ber.	Ratio.	Num- ber.	Ratio.	Num- ber.	Ratio.	Num- ber.	Ratio.	Num- ber.	Ratio.	Num- ber.	Ratio.
Newly Added Area ...	3	1·48	...	...	3	·85	24	11·84	8	5·28	32	9·03
North Kemmendine ...	36	2·95	20	1·90	56	2·14	65	4·14	63	5·99	128	4·88
South Kemmendine ...	31	1·48	46	4·18	77	1·41	90	4·30	60	5·45	150	4·70
Lanmadaw ...	22	1·79	7	1·01	29	1·51	71	5·78	29	5·60	110	5·71
Taroktan ...	23	1·64	5	·63	28	1·27	106	7·57	47	5·91	153	6·97
North-West Town ...	7	·43	7	1·35	14	·65	78	4·76	41	7·92	119	5·52
South-West Town ...	6	·67	3	1·04	9	·77	18	2·23	10	3·48	28	2·38
North-East Town ...	26	1·61	15	2·19	41	1·78	51	3·15	30	4·38	81	3·51
South-East Town ...	11	·88	4	1·17	15	·94	32	2·57	8	2·33	40	2·52
Botataung ...	54	3·96	12	2·12	66	3·42	76	5·57	39	6·88	115	5·95
Yegyaw ...	13	·86	12	1·44	25	1·07	64	4·25	34	4·07	98	4·19
Theinbyu ...	31	1·33	21	1·51	52	1·40	123	5·28	116	8·34	239	6·42
Cantonment ...	...	...	2	1·03	2	·31	15	3·30	2	1·03	17	2·63
Dala ...	12	1·02	10	2·55	22	1·40	42	3·58	32	8·15	74	4·73
Kanaungto ...	4	·36	3	·65	7	·44	64	5·73	29	6·30	93	5·90
Tamwe ...	23	1·12	18	1·73	41	1·32	138	6·72	93	8·95	231	7·47



**Table No. 25.—Statement showing the Immigration and Emigration for the Port of Rangoon during the year 1930.**

Year.	Immigration.			Emigration.			
	Adults.	Children.	Total.	Adults.	Children.	Total.	
1930	3,09,483	14,675	3,24,158	25,857	2,479	28,336	
			Indian Ports.	2,98,376	14,053	3,12,429	
Total	3,09,483	14,675	3,24,158	3,24,233	16,532	3,40,765	

*N.B.*—With reference to the figures for Emigrants to Indian Ports, they have been compiled from the information supplied by the Agents of the respective companies concerned.



Table No. 26.—Burial Statement for the year 1930.

Serial No.	Burial or Burning Ground.	No. of burial passes issued by Medical Registrars, etc.	No. of passes collected by Vaccinators and Caretakers.		Remarks.
			Old.	New.	
1	Ayeywa near Jamal's land, Kemmendine ...	16	1	15	
2	Seikkyi, Kemmendine ...	19	4	15	
3	Municipal West, Hanthawaddy Road ...	3,473	431	3,039	
4	Karen, Bagaya Road ...	29	4	26	
5	Hteedan, Sanchoung Road ...	345	25	328	
6	Armenian, Stockade Road ...	6	2	4	
7	Baptist, Montgomery Street ...	24	2	23	
8	Parsee, U Ohn Ghine Road ...	2	1	2	
9	Jewish, U Ohn Ghine Road ...	12	2	12	
10	Mogul, U Ohn Ghine Road ...	39	2	38	
11	Chinese, Culvert Road ...	287	8	281	
12	Chinese, Tamwe Road ...	122	24	98	
13	Municipal East, Tamwe ...	3,580	287	3,287	
14	Suratee, Tamwe ...	1,119	49	1,078	
15	Dawbong, Patheingyi Village ...	75	4	71	
16	Dawbong, Arracan Co.'s Village...	41	...	41	
17	Dawbong, near Steel's land ...	4	...	4	
18	Dawbong, Ayeywa Village ...	6	...	6	
19	Dalla, Burial Ground ...	117	6	111	
20	Hindu, Burial Ground Dalla ...	97	...	97	
21	Kamakasit, East ...	11	3	7	
22	Kamakasit, West ...	27	8	19	
23	Angyi, Dalla ...	47	4	43	
24	Minywa Seikkyi Dalla ...	14	2	12	
25	Seikkyi, Kanaungto ...	244	13	231	
26	Burmese, North Kanaungto ...	56	2	54	
27	Mohammedau do. ...	17	...	17	
	Carried over ...	...	...	...	



## Burial Statement for the year 1930—contd.

Serial No.	Burial or Burning Ground.	No. of burial passes issued by Medical Registrars, etc.	No. of passes collected by Vaccinators and Caretakers.		Remarks.
			Old.	New.	
	Brought forward ...	...	...	...	
28	Cantonment ...	38	6	35	
29	Kamayut ...	69	5	64	
30	Sunni Burial Ground, Kanaungto	10	2	8	
31	Lower Jawaing ...	7	1	6	
32	Mahamaden private Burial Ground, Hanthawaddy Road ...	2	...	2	
33	Chinese old burial ground, Mill Road	2	...	2	
34	Chittagonian Old Burial Ground, Stockade Road.	2	...	2	
35	Roman Catholic do do ...	4	...	4	
36	Wingaba Kyaungdike, Bahan ...	1	...	1	
37	U Thiri Kyaungdike, Ngadatkyi...	1	...	1	
38	Pyathit Kyaung do ...	1	...	1	
39	Shwegondine Kyaungdike ...	1	...	1	
40	Myanaung Kyaungdike, Wingaba	3	1	2	
41	Ngadatkyi Kyaungdike ...	2	...	2	
42	U Po Yin's Kyaung Bahan, Gyatawya Road ...	1	...	1	
43	Shwegyetyet Kyaungdike ...	1	...	1	
44	Theatre Road compound ...	1	1	...	
45	AlletawyaKygdike, Boundary Road	2	...	2	
46	Pawdawun Pagoda Vault in Waibyan Kyaung ...	1	...	1	
47	Eastern Slope of Shwedagon Pagoda (Cremated)	3	...	3	
48	In Mortuary, Medical College etc.	190	168	...	
	Total (a) ...	10,171	1,068	9,098	

No. of passes not received at the end of last year	14
Total No. of deaths during the year	9,511
Total No. of Still births	630
No. of dead bodies brought from outside Corporation limits.	69
<b>Total</b>	<b>10,254</b>

<b>Total No. of passes collected (Old &amp; New)</b>	<b>10,166</b>
No. of dead bodies removed to outside Corporation limits for burial...	49
No. of passes not collected at the end of the year	33
No. kept in museum for which no pass collected	6
<b>Total</b>	<b>10,254</b>



Vaccination Table No. 1.—Showing the total number of vaccinations performed during the year 1930-31 including those performed at the Port and the cost per head of the vaccinations performed.

Year.	Primary vaccinations in the Town by Corporation Staff.	Revaccinations in the Town by Corporation Staff.	Vaccinations done by Private Medical Practitioners and others.	Ship vaccinations.	Total No. of vaccinations.	Rate percentage of verified Primary successful cases in Town.	Average No. vaccinated by each Vaccinator.	Primary vaccination per 1,000 of population (by Corporation Staff.)	No. of births registered per 1,000 of population.	Total expenditure including cost of lymph and salaries of vaccinators, etc.	Average cost per vaccination head.
1930-31	8,176	16,104	332	1,82,247	2,06,859	97.17	759	23.66	23.11	Rs. 37,154 6 9	Rs. A. P. 0 2 10
1929-30	9,406	21,002	555	2,16,854	2,47,817	98.29	1,086	27.23	24.12	Rs. 41,223 15 9	Rs. A. P. 0 2 8



Table No. 1A.—Showing the particulars of cost of Vaccinations performed at the Port Health Station.

Year.	Pay and allowance for 4 temporary Vaccinators.	Cost of lymph supplied approximately.	Total Cost.	Number of Vaccinations performed.	Cost of each Vaccination.
1928-29	Rs. 1,573-12-0 (from 24-7-28 to 31-3-29).	Rs. 9,404-6-0	Rs. 10,978-2-0	1,87,711	Rs. A. P. 0 0 11
1929-30	Rs. 2,745-6-0	Rs. 7,894-6-0	Rs. 10,639-12-0	2,16,854	0 0 9
1930-31	Rs. 2,937-6-0	Rs. 4,327-13-0	Rs. 7,265-3-0	1,82,247	0 0 8



Table No. II.—*Showing births registered during the year 1930-31, and vaccination of Infants under one year of age.*

CIRCLES.	Total births excluding Still-births.	Still-births.	Deaths under one year.	Number of Infants surviving.	Number of Infants vaccinated.	Percentage of vaccination to births registered.	Remarks.
Newly Added Area ...	196	7	43	153	866	80.56	
North Kemmendine ...	879	55	202	677			
South Kemmendine ...	1,149	54	217	932			
Lanmadaw ...	438	19	107	331	608	68.39	
Taroktan ...	451	9	79	372			
North-West Town ...	347	21	83	264			
South-West Town ...	219	13	32	187	723	127.74	
North-East Town ...	391	15	75	316			
South-East Town ...	281	9	36	245			
Botataung ...	511	11	122	389	492	51.30	
Yegyaw ...	448	32	123	325			
Theinbyu ...	1,039	45	325	714			
Tamwe ...	843	59	265	578	761	40.44	
Dalla ...	356	11	70	286			
Kanaungto ...	383	16	92	291			
Cantonment ...	54	2	24	30	1,293	174.97	
Port ...	...	...	...	...			
Hospitals and other Public Institutions...	...	254	208	...			
Vaccination performed by Private Medical Practitioners ...	...	...	...	...	140	...	
Private Vaccinators ...	...	...	...	...	...	...	
Total ...	7,985	632	2,103	6,090	6,373	79.81	



Table No. 1.—Showing number of Blockages

Division.	Circle.	BLOCKAGES IN							INSPECTOR.						
		Water Closets.	Sulliage Trays.		Manhole.	Downtake Sul- liage and Rain- water Pipes.	Soil Pipes.	Other Blockages.	Water Closets.	Sulliage Trays.		Manhole.	Downtake Sul- liage and Rain- water Pipes.	Soil Pipes.	Other Blockages.
			Deep.	Surface.						Deep.	Surface.				
1	2	3	4	5	6	7	1	2	3	4	5	6	7		
East Town Division.	North-East Town (I)	26	99	3,394	21	9	1	...	...	...	3,394	...	...	...	...
	North-East Town (II)	24	69	3,394	64	25	...	2	2	...	3,394	...	1	...	...
	South-East Town ...	8	200	1,826	3	...	1	...	...	14	1,814	...	...	...	...
	Yegyaw ...	8	397	1,371	10	...	...	...	...	...	1,371	...	...	...	...
	Botataung ...	6	22	2,370	3	7	...	...	...	...	2,370	...	...	...	...
	Total ...	72	787	12,355	101	41	2	2	2	14	12,343	...	1	...	...
East Suburban Division.	Theinbyu East ...	2	...	925	3	2	...	...	...	...	925	...	...	...	...
	Theinbyu West ...	9	6	429	5	1	...	...	...	1	429	...	...	...	...
	Tamwe (I)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tamwe (II)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tamwe (III)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dalla ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	11	6	1,354	8	3	...	...	...	1	1,354	...	...	...	...



## TARY.

cleared during the year 1930.

## CLEARED BY

OWNER.							CORPORATION PLUMBER.							REMARKS.
Water Closets.	Sulliage Trays.		Manhole.	Downtake Sulliage and Rain-water Pipes.	Soil Pipes.	Other Blockages.	Water Closets.	Sulliage Trays.		Manhole.	Downtake Sulliage and Rain-water Pipes.	Soil Pipes.	Other Blockages.	
	Deep.	Surface.						Deep.	Surface.					
1	2	3	4	5	6	7	1	2	3	4	5	6	7	8
25	92	...	21	8	1	...	1	7	...	...	1	...	...	
22	64	...	60	24	...	2	...	5	...	4	...	..	...	
8	181	12	3	...	1	...	...	5	...	...	...	...	...	
7	397	...	7	...	...	...	1	...	...	3	...	...	...	
6	22	...	3	7	...	...	...	...	...	...	...	...	...	
68	756	12	94	39	2	2	2	17	...	7	1	..	...	
1	...	...	3	2	...	...	1	...	...	...	...	..	...	
9	5	...	5	1	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	..	...	...	...	...	...	...	...	...	
10	5	...	8	3	...	...	1	...	...	...	...	...	...	



Table No. 1.—*Showing number of Blockages*

Division.	Circle.	BLOCKAGES IN							INSPECTOR.						
		Water Closets.	Sulliage Trays.		Manhole.	Downtake Sulliage and Rain-water Pipes.	Soil Pipes.	Other Blockages	Water Closets.	Sulliage Trays.		Manhole.	Downtake Sulliage and Rain-water Pipes.	Soil Pipes.	Other Blockages.
			Deep.	Surface.						Deep.	Surface.				
West Town Division.	North-West Town...	22	235	4,199	41	27	...	...	...	...	4,199	...	...	...	...
	South-West Town...	1	318	2,420	16	4	...	...	...	33	2,420	...	...	...	...
	Taroktan	...	79	4,603	17	15	...	1	...	...	4,603	...	...	...	...
	Lanmadaw	...	9	147	3,183	21	7	3	...	...	3,183	...	...	...	...
	Total ...	32	779	14,405	95	53	3	1	...	33	14,805	...	...	...	...
West Suburban Division.	North Kemmendine I	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North KemmendineII	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South Kemmendine I	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South KemmendineII	4	10	1,091	16	...	...	...	...	...	1,091	...	...	...	...
	Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	4	10	1,091	16	...	...	...	...	...	1,091	...	...	...	...
	GRAND TOTAL ...	119	1,582	29,205	220	97	5	3	2	48	29,193	...	1	...	...



## TARY.

cleared during the year 1930.

## CLEARED BY

OWNER.							CORPORATION PLUMBER.							REMARKS.
Water Closets.	Sulliage Trays.		Manhole.	Downtake Sulliage and Rain-water Pipes.	Soil Pipes.	Other Blockages.	Water Closets.	Sulliage Trays.		Manhole.	Downtake Sulliage and Rain-water Pipes.	Soil Pipes.	Other Blockages.	
	Deep.	Surface.						Deep.	Surface.					
1	2	3	4	5	6	7	1	2	3	4	5	6	7	
21	225	...	33	25	...	...	1	10	...	8	2	...	...	
1	234	...	16	4	...	...	...	1	...	...	...	...	...	
...	79	...	17	15	...	1	...	...	...	...	...	...	...	
9	145	...	21	7	3	...	...	2	...	...	...	...	...	
31	733	...	87	51	3	1	1	13	...	8	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
3	8	...	15	...	...	...	1	2	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
3	8	...	15	...	...	...	1	2	...	1	...	...	...	
112	1,502	12	204	93	5	3	5	32	...	16	3	...	...	



Table No. 2.—Showing number of Notices issued and served under the different

NOTICES SERVED

		NOTICES SERVED																
Division.	Circle.	Section.									Sch. II. Ch. I.				Sch. II. Ch. VII.		Sch. I. Ch. VIII	
		98	102	123	124	126	142 (S)	156 (1)	156 (2)	156 (4)	182.	Rule 1.	Rule 2.	Rule 25.	Rule 27 (e). Rule 12.	Rule 2 (a).	Rule 2 (b).	Rule 1 (b).
East Town Division.	North-East Town (I) ...	...	...	...	...	...	...	...	...	134	48	...	448	...	...	5	68	251
	North East Town (II) ...	...	...	...	...	...	...	...	...	240	11	8	524	...	...	1	31	394
	South-East Town ...	...	...	...	...	...	...	...	...	375	18	12	393	...	...	...	77	407
	Yegyaw ...	...	...	...	...	...	...	...	...	13	26	14	626	...	...	...	146	344
	Botataung ...	...	...	...	...	...	...	5	3	...	174	2	6	200	...	2	115	125
	R. B. (I) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	R. B. (II) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F. I. (I) ...	...	...	...	...	...	...	...	...	3	...	...	3	...	...	...	...	...
	F. I. (II) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	...	...	...	...	5	3	...	939	105	40	2,194	...	8	440	1,521
East Sub-urban Division.	Theinbyu East ...	...	...	...	...	...	...	...	...	155	54	...	144	...	...	...	348	237
	Theinbyu West ...	...	...	...	...	...	...	...	...	117	3	1	249	...	...	...	590	...
	Tamwe (I) ...	...	...	...	5	...	...	...	...	158	10	...	74	...	...	2	416	3
	Tamwe (II) ...	...	...	...	...	...	...	1	...	15	2	...	121	...	...	...	362	18
	Tamwe (III) ...	...	...	...	...	...	...	...	...	44	13	...	22	2	...	4	204	...
	Dalla ...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...
	R. B. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F. I. (I) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F. I. (II) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	...	5	...	...	1	...	489	82	1	612	2	...	6	1,920	258



## Sections of the City of Rangoon Municipal Act, 1922, during the year 1930.

UNDER

Sch. II. Chap. VIIIA.						Sch. II. Ch. IXA.		Sch. II Chap. X	Sch. II. Ch. XII.				Sch. II. Ch. XIII.			Sch. II. Ch. XV.	Sch. II Ch. XVII. Food bye-laws.	Milk bye-laws.	Ice and Aerated water bye-laws.	Sherbet and Ice- cream bye-laws.	Section 179.	Ch. VIII. R. 1(e).	Sch. II. Ch. XII R. 2.	Total.
Rule 1.	Rule 2.	Rule 3.	Rule 4.	Rule 5.	Rules 7 & 8.	Rule 1.	Rule 7.		Rule 4.	Rule 6.	Rules 10, 11 & 12.	Rules 13 & 14.	Rule 1.	Rules 10 to 19.	Rules 20 & 21.									
199	...	141	...	...	...	35	3	...	...	...	...	11	4	...	...	...	...	...	...	...	...	...	...	1,347
255	44	129	...	...	...	36	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	1,680
235	1	128	...	...	9	26	...	...	...	...	4	35	...	...	1	...	...	...	...	...	...	...	...	1,721
106	5	93	...	...	8	60	...	...	...	...	...	2	...	...	5	...	...	...	...	...	...	...	...	1,451
138	2	10	1	...	9	81	...	...	...	...	...	4	6	...	31	...	...	...	...	...	...	...	...	914
...	...	...	...	...	...	...	...	...	22	29	...	...	...	...	...	...	...	...	...	...	...	...	...	51
...	...	...	...	...	...	...	...	...	25	27	...	...	...	...	...	...	...	...	...	...	...	...	...	52
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	308	34	5	8	...	...	...	362
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	141	...	...	...	...	...	...	141
933	52	501	1	...	26	238	3	...	47	56	4	59	10	...	37	1	449	34	5	8	...	...	...	7,719
63	...	55	...	...	4	55	...	...	...	...	...	6	2	...	51	...	1	...	...	...	1	...	...	1,176
76	...	15	...	...	2	112	...	...	...	1	5	...	...	...	47	...	...	...	...	...	2	1	...	1,221
18	...	9	...	7	12	75	...	...	1	1	...	...	1	...	91	...	...	...	...	1	...	...	...	884
89	...	27	...	...	17	67	...	...	49	112	40	...	16	...	90	...	...	...	...	...	...	...	...	1,026
18	...	2	...	...	3	8	1	...	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...	339
16	...	...	...	...	...	26	1	...	2	3	2	...	...	...	...	...	...	...	...	...	...	...	...	52
...	...	...	...	...	...	...	...	...	25	20	...	...	...	...	...	...	...	...	...	...	...	...	...	45
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	518	2	...	21	...	...	...	541
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
280	...	108	...	7	38	343	2	...	77	137	47	6	19	...	297	...	519	2	...	21	22	1	...	5,284



Table No. 2.—Showing number of Notices issued and served under the

		NOTICES SERVED																
Division.	Circle.	Section.								Sch. II. Ch. I.					Sch. II. Ch. VII.		Sch. I. Ch. VIII.	
		98	102	123.	124.	126	156 [1].	156 [2].	156 [4].	182.	Rule 1.	Rule 2.	Rule 25.	Rule 27 [e].	Rule 12.	Rule 2 [a].	Rule 2 [b]	Rule 1 [b].
West Town Division.	North-West Town ...	...	...	...	...	...	...	...	...	524	32	13	457	3	...	3	69	468
	South-West Town ...	...	...	...	...	...	...	...	...	357	45	5	414	3	...	11	77	291
	Taroktan ...	...	...	1	...	...	...	...	...	165	32	1	335	...	...	13	117	571
	Lanmadaw ...	...	...	...	...	...	...	...	...	271	84	3	410	...	...	...	54	40
	R. B. (I) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	R. B. (II) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F. I. (I) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F. I. (II) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	1	...	...	...	...	...	1,317	193	22	1,616	6	...	27	317	1,744
West Suburban Division.	North Kemmendine (I)	...	...	...	...	...	...	1	...	71	8	2	85	28	...	...	260	...
	North Kemmendine (II)	...	...	...	...	...	...	...	...	132	...	...	165	...	4	...	272	...
	South Kemmendine (I)	...	...	...	...	...	...	...	...	102	2	4	92	7	...	...	342	...
	South Kemmendine (II)	...	...	...	...	...	...	...	...	153	4	4	118	...	...	...	77	9
	Kanaungto ...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	7	13	...
	R. B. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F. I. (I) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F. I. (II) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cantonment ...	...	...	...	...	...	...	...	...	1	...	...	7	...	...	...	2	...
Total ...	...	...	...	...	...	...	1	...	459	14	10	470	35	4	7	966	10	
Grand Total ...	...	...	1	5	...	...	7	3	3,204	394	73	4,892	43	4	48	3,643	3,62	



*different sections of the City of Rangoon Municipal Act, 1922, during the year 1930.*

UNDER

Sch. II. Chap. VIIIA.						Sch. II Ch. IXA.		Sch. II, Chap. X.	Sch. II. Ch. XII.				Sch. II. Ch. XIII.			Sch. II. Ch. XV.	Sch. II, Ch. XVII. Food bye-laws.	Milk bye-laws.	Ice & aerated water bye-laws.	Sherbet & icecream bye-laws.	Sec. 179.	Ch. VIII R. 1(e).	Sch. II, Ch. XII R. 2.	Total.
Rule 1.	Rule 2.	Rule 3.	Rule 4.	Rule 5.	Rules 7 & 8.	Rule 1.	Rule 7.		Rule 4.	Rule 6.	Rules 10, 11 & 12.	Rules 13 & 14.	Rule 1.	Rules 10 to 19.	Rules 20 & 21.									
289	...	128	...	...	1	102	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	2,096
138	...	57	...	...	1	5	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	1,408
299	...	30	...	...	...	101	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1,673
202	...	43	...	...	3	28	...	...	...	...	...	1	2	...	1	...	...	...	...	...	...	...	...	1,508
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	40	24	...	...	...	...	...	...	...	...	...	...	...	...	...	64
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	698	2	6	14	...	...	...	720
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
928	...	258	...	...	5	236	...	...	40	24	2	11	2	...	1	...	698	2	6	14	...	...	...	7,469
141	10	21	...	...	56	169	...	...	...	...	...	3	42	...	45	...	...	...	...	...	...	...	...	944
30	...	43	...	...	16	46	...	1	...	...	...	...	18	...	81	...	1	...	...	...	...	...	...	809
107	...	7	...	...	48	99	...	...	...	...	...	1	3	...	53	...	...	...	...	...	...	...	...	867
122	1	14	...	...	6	175	...	...	...	...	...	5	...	...	5	...	...	...	...	...	1	...	...	783
27	...	...	...	...	...	20	...	...	5	...	...	45	...	...	...	...	...	...	...	...	...	...	...	120
...	...	...	...	...	...	...	...	...	10	32	...	...	...	...	...	...	...	...	...	...	...	...	...	42
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	359	1	9	8	...	...	...	378
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	13
427	11	86	...	...	126	509	...	1	15	32	...	54	63	...	186	1	360	1	9	8	1	...	...	3,956
2,568	63	953	1	7	195	1326	5	1	179	249	53	130	94	...	521	2	2026	39	20	51	3	2	1	24,428



Table No. 3.—Showing Number of cases Prosecuted and amount of fines  
Rangoon Municipal Act, 1922,

Rule or Section.	Name of offence.	EAST TOWN					
		No. of prosecutions.	No. of cases with- drawn.	No. of cases tried.	No. of cases acquitted	No. of cases struck off.	No. of cases con- victed.
Sch. II Chap. 1 Rule 1.	Failure to provide troughs and pipes for receiving, carrying and discharg- ing water from buildings ...	...	...	...	...	...	...
Do. Rule 2	Failure to pave court-yard, etc., for efficient drainage ...	...	...	...	...	...	...
Do. Rule 12	Failure to provide water closet or closet accommodation or urinal and bathing or washing places, etc. ...	...	...	...	...	...	...
Do. Rule 13	Failure to provide closet accommodation for factories ...	...	...	...	...	...	...
Do. Rule 25 (1)	Failure to repair latrine, urinal, bathing and washing places, etc. ...	7	2	5	...	2	3
Sch. II Chap. VII Rule 1	Failure to provide receptacles for collecting and keeping rubbish and offensive matter ...	...	...	...	...	...	...
Do. Rule 2	Accumulations of offensive matter on any street or premises ...	4	...	4	...	3	1
Sch. II Chap. VIII Rule 1	Failure to fill in pools which are a nuisance ...	...	...	...	...	...	...
Sch. II Chap. VIIIA Rule 1	Failure to limewash premises ...	14	7	7	...	4	3
Do. Rule 2	Failure to enclose land or building ...	...	...	...	...	...	...
Do. Rule 3	Failure to clear and remove noxious Vegetation ...	7	1	6	...	2	4
Do. Rule 7	Bathing, or washing animals, clothes or other article or drying clothes in places not set apart for the purpose ...	...	...	...	...	...	...
Do. Rule 8	Washing of clothes by washermen in places prohibited for the purpose ...	17	1	16	...	7	9
Sch. II Chap. IX Rule 1	Concealing of epidemic diseases ...	1	...	1	...	1	...
Sch. II Chap. IX-A	Carrying on dangerous and offensive trade or keeping of any article for sale which is dangerous or likely to create a nuisance, without license ...	7	...	7	...	5	2
Carried over ...		57	11	46	...	24	22



*imposed under the Ghee Act and the Different Sections of the City of during the year 1930.*

DIVISION.		EAST SUBURBAN DIVISION.							
Amount of		No. of prosecutions.	No. of cases with-drawn.	No. of cases tried.	No. of cases acquitted.	No. of cases struck off.	No. of cases convicted.	Amount of	
Fines imposed. Rs.	Cost awarded. Rs.							Fines imposed. Rs.	Cost awarded. Rs.
...	...	3	...	3	...	2	1	1	1
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
50	3	20	5	15	...	5	10	131	10
...	...	...	...	...	...	...	...	...	...
10	1	4	...	4	...	3	1	1	1
...	...	2	...	2	...	2	...	...	...
16	3	9	...	9	...	6	3	60	3
...	...	...	...	...	...	...	...	...	...
125	4	1	...	1	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...
71	9	10	...	10	1	5	4	30	4
...	...	1	...	1	...	...	1	5	1
15	2	35	2	33	...	14	19	195	19
287	22	85	7	78	1	38	39	423	39



Table No. 3.—Showing Number of cases Prosecuted and amount of fines  
Rangoon Municipal Act, 1922,

WEST TOWN DIVISION.								WEST SUBURBAN DIVISION.							
No. of prosecutions.	No. of cases with- drawn.	No. of cases tried.	No. of cases acquitted	No. of cases struck off.	No. of cases con- victed.	Amount of		No. of prosecutions.	No. of cases with- drawn.	No. of cases tried.	No. of cases acquitted.	No. of cases struck off.	No. of cases con- victed.	Amount of	
						Fines Rs.	Cost Rs.							Fines Rs.	Cost Rs.
8	3	5	...	2	3	51	3	2	...	2	...	1	1	5	1
1	...	1	...	...	1	20	1	1	...	1	...	...	1	15	1
...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	1	...	...	1	1	1	29	3	26	...	14	12	89	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	11	...	7	4	85	4	8	...	8	...	4	4	40	4
...	...	...	...	...	...	...	...	2	...	2	...	2	...	...	...
20	2	18	...	10	8	92	8	39	3	36	...	14	22	225	22
...	...	...	...	...	...	...	...	1	...	1	...	...	1	10	1
5	...	5	...	1	4	40	4	1	...	1	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	21	...	21	...	7	14	75	14
1	...	1	...	...	1	75	1	1	...	1	...	...	1	40	1
16	5	11	...	4	7	210	7	95	75	20	...	9	11	176	11
63	10	53	...	24	29	574	29	201	81	120	...	53	67	675	67



*imposed under the Ghee Act and the Different Sections of the City of during the year 1930.*

TOTAL.								Remarks.
No. of prosecutions.	No. of cases with- drawn.	No. of cases tried.	No. of cases acquitted.	No. of cases struck off.	No. of cases con- victed.	Amount of		
						Fines imposed. Rs.	Cost awarded. Rs.	
13	3	10	..	5	5	57	5	
2	..	2	..	...	2	35	2	
1	..	1	..	1	..	...	..	
...	...	...	...	...	...	...	...	
57	10	47	...	21	26	271	26	
...	...	...	...	...	...	...	...	
27	...	27	...	17	10	136	10	
4	...	4	...	4	...	...	...	
82	12	70	...	34	36	393	36	
1	...	1	...	...	1	10	1	
14	1	13	...	5	8	165	8	
...	...	...	...	...	...	...	...	
48	1	47	1	19	27	176	27	
4	...	4	...	1	3	120	3	
153	82	71	...	32	39	596	39	
406	109	297	1	139	157	1,959	157	



Table No. 3.—*Showing Number of cases Prosecuted and amount of fines*  
*Rangoon Municipal Act, 1922*

Rule or Section.	Name of offence.	EAST TOWN					
		No. of prosecutions.	No. of cases with- drawn.	No. of cases tried.	No. of cases acquitted.	No. of cases struck off.	No. of cases con- victed.
	Brought Forward ...	57	11	46	...	24	22
Sch. II Chap. XII	Not furnishing names of keepers of registered building ...	9	3	6	...	4	2
Do. Rule 10 (e)	Refusing access to registered building for inspection ...	58	...	58	...	23	35
Do. Rule 10 (g)	Overcrowding in registered building ...	753	3	750	3	227	520
Do. Rule 13 ...	Failure to do repairs, etc., to registered building under R. B. Rules ...	4	...	4	...	1	3
Sch. II Chap. XIII	Keeping animals in contravention of rules ...	17	1	16	...	7	9
Sch. II Chap. XV	Breach of market rules ...	...	...	...	...	...	...
Sch. II Chap. XVI	Breach of rules respecting condensed milk ...	...	...	...	...	...	...
Do. Chap. XVII	Breach of rules relating to the manufacture and sale of articles of food, drink and the supervision of public eating-houses, food stalls, tea-shops and places where sweets, etc., are sold ...	115	16	99	...	68	31
Milk bye-laws (Sec. 102, B. M. Act, 1898).	Sale of milk or keeping cattle for sale of their milk in contravention of bye-laws ...	2	...	2	...	1	1
Bye-laws for aerated water, Ice-cream, etc. (Sec. 102, B. M. Act, 1898).	Sale of aerated water, Ice cream, etc., without license ...	...	...	...	...	...	...
Sec. 132 ...	Sale of diseased animals or unwholesome articles intended for human food ...	...	...	...	...	...	...
Ghee Act ...	Adulteration of ghee or refusing ghee sample for analysis ...	...	...	...	...	...	...
Sec. 142(S) of B.M. Act 1898.	Barbed Wire fencing ...	...	...	...	...	...	...
Section 124 ...	Storing or keeping in any premises articles prescribed as D and O or likely to be a nuisance or dangerous ...	...	...	...	...	...	...
	Total ...	1,015	34	981	3	355	623



*imposed under the Ghee Act and the Different Sections of the City of during the year 1930.*

DIVISION.		EAST SUBURBAN DIVISION.							
Amount of		No. of prosecutions.	No. of cases with-drawn.	No. of cases tried.	No. of cases acquitted.	No. of cases struck off.	No. of cases con-victed.	Amount of	
Fines imposed. Rs.	Cost awarded. Rs.							Fines imposed. Rs.	Cost awarded. Rs.
287	22	85	7	78	1	38	89	432	39
30	2	9	1	8	...	2	6	58	6
282	35	3	...	3	...	2	1	5	1
...	...	...	...	...	...	...	...	...	...
3,232	520	151	...	151	...	42	109	663	109
80	3	26	...	26	...	14	12	120	12
67	9	89	...	89	...	34	55	477	55
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
528	31	66	11	55	...	32	23	358	23
5	1	1	...	1	...	1	...	...	...
...	...	1	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	2	...	2	1	...	1	15	1
4,511	623	433	20	413	2	165	246	2,119	246



**Table No. 3.—Showing Number of cases Prosecuted and amount of fines**  
*Rangoon Municipal Act, 1922*

WEST TOWN DIVISION.								WEST SUBURBAN DIVISION.							
No. of prosecutions.	No. of cases with-drawn	No. of cases tried.	No. of cases acquitted	No. of cases struck off.	No. of cases con-victed	Amount of		No. of prosecutions.	No. of cases with-drawn.	No. of cases tried.	No. of cases acquitted	No. of cases struck off.	No. of cases con-victed.	Amount of	
						Fines imposed. Rs.	Cost awarded. Rs.							Fines imposed. Rs.	Cost awarded. Rs.
B. F. 63	10	53	...	24	29	574	29	201	81	120	...	53	67	675	67
33	...	33	1	19	13	8	13	3	...	3	...	2	1	10	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
904	2	902	...	338	564	5,300	564	31	...	31	...	16	15	95	15
8	...	8	...	5	3	15	3	3	...	3	...	2	1	20	1
1	...	1	...	...	1	5	1	147	29	118	...	40	78	780	78
...	...	...	...	...	...	...	...	3	2	1	...	...	1	5	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
131	12	119	...	72	47	782	47	64	19	45	...	29	16	193	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	4	...	4	...	2	2	7	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	1	10	1
1,145	24	1,121	1	461	659	6,791	659	465	131	334	...	150	184	1,830	184



*imposed under the Ghee Act and the Different Sections of the City of during the year 1930.*

TOTAL.								Remarks.
No. of prosecutions.	No. of cases with- drawn.	No. of cases tried.	No. of cases acquitted.	No. of cases struck off.	No. of cases con- victed.	Amount of		
						Fines imposed. Rs.	Cost awarded. Rs.	
B.F. 406	109	297	1	139	157	1,959	157	
31	4	27	...	15	12	153	12	
97	...	97	1	46	50	382	50	
1,839	5	1,834	3	623	1,208	9,290	1,208	
41	...	41	...	22	19	235	19	
254	30	224	...	81	143	1,329	143	
3	2	1	...	...	1	5	1	
...	...	...	...	...	...	...	...	
376	58	318	...	201	117	1,861	117	
3	...	3	...	2	1	5	1	
5	1	4	...	2	2	7	2	
...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	
3	...	3	1	...	2	25	2	
3,058	209	2,849	6	1,131	1,712	15,251	1,712	



Summary of inspections made by the Sanitary Inspectors and Sanitary Works completed during the year 1930.

No. of Inspections, etc.,  
by Sanitary Inspector.

A. Nature of Inspection or premises visited.

1. Dwelling houses excluding R. B. houses	...	...	42,908
2. Milch cattle stables	...	...	1,388
3. Other stables	...	...	788
4. Milk, Ice-cream & Sherbet shops	...	...	959
5. Public Eating houses & Tea shops, etc.	...	...	16,151
6. R. B. Houses (1) Day	...	...	10,331
(2) Night	...	...	1,720
7. Markets, Cinemas & Schools—No. of visits	...	...	4,098
8. Aerated Water Works	...	...	344
9. Other workshops & factories	...	...	817
10. Building works	...	...	1,646
11. Drains & Fittings	...	...	6,119
12. Inspection of places where dangerous and offensive articles are stored	...	...	3,337
13. Houses where epidemic diseases occurred	...	...	353
14. Other Inspections & Inquiries	...	...	2,416
Total No. of Inspections			93,375

B. Works, etc., completed.

1. Dwellings.			
(a) Limewashed	...	...	2,156
(b) Kitchen floors repaired	...	...	1,044
(c) W. Cs. repaired	...	...	873
(d) New W. Cs. provided	...	...	81
(e) Water storage tanks cleaned	...	...	19,834
2. Stables.			
(a) Paved & drained	...	...	30
(b) Cleaned & refuse removed	...	...	660
3. Markets, Theatres & Schools			
Sanitary requirements carried out	...	...	54
4. Dangerous & Offensive Trades.			
(a) Licenses issued	...	...	1,065
(b) Licenses cancelled	...	...	...



**B. Works, etc., completed—concluded.**

5. Milk, Ice & Aerated Water, Sherbet & Ice-cream shops.			
(a) Licenses issued	...	...	190
(b) Licenses cancelled	...	...	...
6. Public Eating Houses & Teashops, etc.			
(a) Licenses issued	...	...	1,301
(b) Licenses cancelled	...	...	1
7. Factories & Workshops.			
Limewashing etc., carried out	...	...	70
8. Repairs, etc., done through Corporation Plumbers		...	226
9. No. of cases of accumulation of refuse, rank vegetation, etc., removed	...	...	3,619
10. Latrine tubs provided	...	...	887
11. Blockages removed	...	...	31,232
12. Other Works completed	...	...	618
Details to be given.			
Total Sanitary Works completed			63,991



List of articles of unwholesome food and drink destroyed during the year 1930 as compared with that of the previous year.

*By Inspectors.*

		1929.	1930.
Milk	...	1,597½ viss	735 viss.
Ghee	...	40 "	...
Butter	...	28 lbs.	673½ lbs.
Cheese	...	24 "	40 "
Curd	...	12 "	2 3/4 "
Aerated Waters	...	261 bottles.	265 bottles.
Fish (fresh)	...	1,554 viss.	861 7/12 viss.
Fish (dry)	...	45 "	11½ viss.
Fish (tinned)	...	617 tins.	2,221 tins.
Meat (fresh)	...	82 viss.	68½ & 3 lbs.
Meat (dry)	...	3½ "	...
Eggs	...	1,002 in No.	477 in No.
Potatoes	...	915½ viss.	309 ¼ viss.
Onions	...	872 "	336 "
Garlic	...	5½ "	6½ "
Grain	...	7 "	246 tins & 10 viss.
Vegetables	...	1,661½ "	1,025 viss.
Fruits (fresh)	...	1 basket and 25,528 in number.	16,042 in number.
Fruits (dry)	...	3 cases, 97 tins and 250 in number.	12 cases 2 viss & 9 in number.
Preserved Fruits	...	22 tins.	72 tins & 9 in number.
Condensed Milk	...	468 "	45 tins.
Cocoa	...	... lbs.	13 lbs.
Biscuits	...	68½ "	50 tins & 60½ lbs.
Bread	...	361 lbs. & ½ viss. 4 Rolls.	237 lbs. & 1 viss.
Chocolate	...	4 "	...
Patent Food	...	...	50 tins & 2½ viss
Indian Sweetmeat	...	136½ viss.	76 viss.
Ham	...	1 in number.	7 lbs. & 9 pieces.
Cocoanuts	...	97 "	2 in No.

*On request from various firms.*

Tinned Milk	...	24,169 tins.
Sterilised Milk	...	121 "
Condensed Milk	...	786 "
Libby's Milk	...	566 "
Cream	...	149 "
Cocoa	...	872 "
Patent Food	...	557 tins and 42 bottles.
Butter	...	258½ tins.
Cheese	...	276 tins & 19 pieces.
Feeders	...	1 tin.
Sardines	...	8,087 tins.
Ham	...	5 legs, 15 lbs. & 90 pieces.
Biscuits	...	4 cases & 10 tins.



*On request from various firms—concluded.*

Evaporated Milk	...	617 tins.
Pears	...	1 tin.
Chocolates	...	(171 boxes, 395 tins. 645 packets, 62 bundles (1,859 slabs, 121 rolls & 62 sticks.
Sausages	...	3 tins & 21 lbs.
Vermicelli	...	61 packets & 65 ins.
Salt	...	3 tins.
Oatmeal	...	7 tins.
Cherry	...	58 tins
Damaged Salmon	...	401 tins.
Easter Eggs	...	5 in number.
Apricot	...	1 tin.
Asparagus tip	...	2 tins.
Haggis	...	26 tins,
Spagetti or Macaroni	...	84 packets & 21 tins.
Federal milk	...	18 tins.
Salt	...	3 tins.
Baking Powder	...	11 tins.
Tooth powder	...	3 tins.
Cod roes	...	2 tins.
Cabbage	...	3 tins.
Oppenta water	...	2 bottles.
Jelly	...	3 bottles.
Ground Almond	...	184 bottles.
Milk powder	...	4 bottles
Arrow-root	...	53 bottles
Dry hops	...	35 bottles.
Haddock	...	39 bottles.
Tripes de mode	...	88 bottles.
Walnut Ketchup	...	32 bottles.
Chillies Sauce	...	48 bottles.











