

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

### **Contributors**

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**CORPORATION OF RANGOON.**

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**ANNUAL REPORT**  
NO 127  
**OF**  
**THE HEALTH OFFICER**

**For the City of Rangoon**

**For the year 1927.**

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WITH THE COMPLIMENTS  
of the  
HEALTH OFFICER.





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To

THE COMMISSIONER,  
CORPORATION OF RANGOON.

SIR,

I have the honour to submit my Annual Report on the sanitary condition of the City of Rangoon for the year 1927 together with the Vaccination Report and that on the working of the Veterinary Department for the official year 1927-28, and the report of the Medical Officer, Contagious Diseases and Observation Hospitals, for the year 1927.

I have the honour to be,

Sir,

Your most obedient servant,

K. R. DALAL, L.M. & S., D.T.M., D.P.H.,

HEALTH OFFICE :

*The 5th May 1928.*

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HEALTH OFFICER,

*Corporation of Rangoon.*



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# SUMMARY OF STATISTICS. FOR THE YEAR 1927.

Population by the Census of 1921	...	...	...	...	...	3,45,505
Estimated Population for 1927	...	...	...	...	...	3,75,402
Area of Rangoon Town	...	...	...	...	...	30·40 sq. miles.
Number of live births registered	...	...	...	...	...	7,316
Birth-rate per 1,000 Census Population	...	...	...	...	...	21·17
Number of deaths	...	...	...	...	...	10,851
Death-rate per 1,000 Census Population	...	...	...	...	...	31·41
Death-rate per 1,000 Estimated Population	...	...	...	...	...	28·91
Number of deaths amongst infants under one year	...	...	...	...	...	2,150
Infant deaths per 1,000 births	...	...	...	...	...	293·88
Plague—Number of deaths from	...	...	...	...	...	168
„ Death-rate	...	...	...	...	...	0·49
Small-pox—Number of deaths from	...	...	...	...	...	203
„ Death-rate	...	...	...	...	...	0·59
Cholera—Number of deaths from	...	...	...	...	...	84
„ Death-rate	...	...	...	...	...	0·24
Influenza—Number of deaths from	...	...	...	...	...	61
„ Death-rate	...	...	...	...	...	0·18
Tuberculosis—Number of deaths from	...	...	...	...	...	964
„ Death-rate	...	...	...	...	...	2·79
Respiratory Diseases—Number of deaths from	...	...	...	...	...	2,476
„ Death-rate	...	...	...	...	...	7·17
Cerebro-Spinal Fever—Number of deaths from	...	...	...	...	...	10
„ Death-rate	...	...	...	...	...	0·03
Beri Beri—Number of deaths from	...	...	...	...	...	107
„ Death-rate	...	...	...	...	...	0·31
Diphtheria—Number of deaths from	...	...	...	...	...	10
„ Death-rate	...	...	...	...	...	0·03
Cancer—Number of deaths from	...	...	...	...	...	30
„ Death-rate	...	...	...	...	...	0·9
Puerperal Septicaemia—Number of deaths from	...	...	...	...	...	28
„ Death-rate	...	...	...	...	...	0·08





# ANNUAL PUBLIC HEALTH REPORT FOR THE YEAR 1927.

## Climatic Conditions.

Details of Meteorological data for Rangoon are given in the Statement attached to this Report and call for no special comment.

The total rainfall amounted to 108·21 inches showing 0·67 inches higher than the average for the previous five years and 8·95 inches higher than the rainfall in 1926.

## 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 3,41,962, *i.e.*, 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 1927 was 3,75,402.

## Births & Birth-rates.

The number of births registered during the year was 7,316 as compared with 7,313 in 1926.

The birth-rates for the years 1927 and 1926 on the Census Population were 21·17 and 21·17 respectively.

The birth-rate calculated on the Estimated population of 1927 was 19·49. The highest birth-rate was recorded in the Newly Added Area and the lowest in Cantonment. The rates were 33·31 and 10·51.

Male births exceeded female births in the proportion of 107·19 to 100.

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

Communities.	Number of births.	Birth-rates.
Anglo-Indians	... 230	... 27·64
Other Classes	... 399	... 25·08
Burmese	... 2,636	... 24·98
Chinese and Panthays	... 817	... 33·88
Europeans	... 91	... 23·10
Mohammedans and Malays	... 939	... 15·13
Hindus	... 2,204	... 17·54



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 1926 and 1927:—

Circles.	1927.	1926.
South Kemmendine	159	170
Dala	157	167
North-West Town	151	140
Tamwe	143	148
Newly Added Area	143	147
Yegyaw	141	141
Lanmadaw	138	121
South-West Town	130	134
Botataung	127	129
Taroktan	120	106
South-East Town	120	110
North Kemmendine	115	120
North-East Town	107	102
Theinbyu	99	109
Kanaungto	91	105
Cantonment	63	25

### Still-births.

512 Still-births were recorded during the year. 229 of these were of Burmese parentage, 137 of Hindu parentage, 82 of Mohammedan or Malay parentage, 37 of Chinese and Panthay parentage, 15 of other Classes, 9 of Anglo-Indian parentage and 3 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	2,636	229	8·69
Mohammedans and Malays	939	82	8·73
Hindus	2,204	137	6·22
Chinese and Panthays	817	37	4·53
Other Classes	399	15	3·76
Europeans	91	3	3·30
Anglo-Indians	230	9	3·91
	<u>7,316</u>	<u>512</u>	<u>7·00</u>

Out of 512 Still-births, the confinements were supervised by unqualified Midwives or relatives in 249 cases.



### Deaths and Death-rates.

10,851 deaths were registered during the year. In 1926, 12,231 were registered. The death-rates on the Census population for the years 1927 and 1926 work out at 31·41 and 35·40 respectively. 512 of the total deaths occurred amongst individuals not normally resident in Rangoon but who had come to Rangoon during their final illness and died in Rangoon.

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 Popula- tion.	Death-rate on Estimated Population.
1922	12,232	36·04	35·53
1923	11,918	34·85	33·89
1924	11,448	33·13	32·11
1925	12,373	35·81	33·90
1926	12,231	35·40	33·04

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

Communities.	No. of deaths.	Death-rate.
Anglo-Indians	138	16·58
Europeans	47	11·93
Other Classes (including 4 deaths in which race was unknown,)	605	38·02
Mohammedans and Malays	1,626	26·20
Hindus	4,246	33·80
Burmese	3,317	31·43
Chinese and Panthays	872	36·16

### Infantile Mortality.

2,150 infants died before completing their first-year of life, giving an infantile mortality rate of 293·88 per 1,000 births.

In the previous year 2,343 infants under one year of age died with an infantile mortality rate of 320·39.

Out of 2,150 infant deaths, 1,626 were born within Corporation limits of which 1,618 births were registered and 8 were not registered. 524 were born outside Corporation limits.



If the latter number of 524 infants born outside Corporation limits be excluded from the total number of infants who had died before reaching their first year of life, the infantile mortality rate for the year under report would be 222.25 per 1,000 births.

96 confinements leading to the birth of these infants took place at the Dufferin Hospital, 1,184 of the confinements were attended to by unqualified Midwives, 264 by qualified Midwives, 79 by the Society for the Promotion of Infant Welfare and 3 by relatives, etc.

In 1926, 7,313 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 1,551 of them died. The mortality rate works out at 212.09. Of these 1,551 infants, 592 died in the first month, 257 in the second month, 227 in the third month, 115 in the fourth month, 73 in the fifth month, 73 in the sixth month, 49 in the seventh month, 28 in the eighth month, 45 in the ninth month, 23 in the tenth month, 38 in the eleventh month and 31 in the twelfth month.

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

Communities.	No. of deaths.	Death-rate.
Anglo-Indians	188	45.88
Europeans	17	11.48
Other Classes (including deaths which race was unknown)	605	94.00
Muslims and Malays	1,028	96.20
Hindus	4,210	93.80
Burmese	8,317	91.15
Chinese and Fantiya	872	85.16

#### Infantile Mortality.

2,150 infants died before completing their first year of life, giving an infantile mortality rate of 293.88 per 1,000 births.

In the previous year 2,343 infants under one year of age died with an infantile mortality rate of 320.39.

Out of 2,150 infant deaths, 1,638 were born within Corporation limits, of which 1,618 births were registered and 20 were not registered. 512 were born outside Corporation limits.

The following statement gives the principal causes of deaths, their number and infantile death-rate per 1,000 births in different Communities for the year 1927.

Causes 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 ...	138	38	139	34	...	...	...	6	...	1	9	365
Malnutrition ...	79	36	41	6	...	...	...	3	...	...	5	170
Convulsions ...	222	91	226	38	...	...	...	19	...	...	58	654
Bronchitis & Pneumonia ...	167	67	165	67	...	2	...	5	...	...	36	509
Enteritis ...	15	8	11	6	...	...	...	2	...	...	4	46
Diarrhoea and Dysentery ...	43	8	35	6	...	1	3	...	...	...	6	102
Obstruction of Bowels ...	25	14	13	2	...	...	...	1	...	...	3	58
Marasmus ...	11	9	12	7	...	...	...	2	...	...	2	43
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...
Fever ...	1	...	1	1	...	...	...	...	...	...	1	4
Diphtheria ...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	2	1	...	...	...	...	...	...	...	...	...	3
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox ...	6	...	3	...	...	...	...	...	...	...	1	10
Other Causes ...	63	21	58	16	...	...	1	3	1	...	23	186
Total ...	772	293	704	183	...	3	4	41	1	1	148	2,150
Infantile Mortality rate per 1,000 births.	350.27	254.53	267.07	223.99	...	37.04	43.96	178.26	28.57	250.00	532.38	293.88



It will be observed from the above Table that Premature Birth, Malnutrition and Convulsions, Bronchitis and Pneumonia and Diarrhoea and Dysentery caused in the aggregate 1,800 deaths out of the total number of infant deaths of 2,150.

Of the 7,316 total number of births during the year :—

1,356 had been attended to by Doctors or Midwives.

1,086 were confined at the Dufferin Hospital.

617 were attended to by the Society for the Promotion of Infant Welfare.

4,172 were attended to by unqualified Midwives.

15 were attended to by friends and relatives.

59 births were registered in Cantonment, and 11 births were registered in the Military Police Hospital.

From the above Table it will be seen that the percentage of confinements attended to by unskilled women was 57·23 and the percentage of confinements attended to by qualified Midwives including those confined at the Dufferin Hospital, Military Police Hospital and by the Society for the Promotion of Infant Welfare was 41·96.

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

	1925.	1926.	1927.
Total No. of births including still-births registered	6,947	7,803	7,828
Total No. of still-births notified	467	490	512
Percentage of Still-births to total No. of births registered	7·21	6·70	7·00
Total No. of births excluding Still-births	6,480	7,313	7,316
Total No. of confinements attended by qualified Doctors or Midwives	1,416	1,549	1,356
Percentage of confinements attended by qualified Doctors or Midwives,	21·85	21·18	18·53
Total No. children born in Dufferin Hospital	938	972	1,086
Percentage of children born in Dufferin Hospital	14·48	13·29	14·84
Total No. of confinements attended by the Society for the Promotion of Infant Welfare at Centres and Homes	737	859	617
Percentage of confinements attended by the Society for the Promotion of Infant Welfare at Centres and Homes	11·37	11·75	8·43
Total No. attended by friends and relatives	139	121	15
Percentage attended by friends and relatives	2·14	1·65	0·21
Total No. of births registered in Cantonment	24	27	59
Percentage of births registered in Cantonment	0·37	0·37	0·81
Total No. of births registered in Military Police Hospital	13	9	11
Percentage of births registered in Military Police Hospital	10·20	0·12	0·15
Total No. of confinements attended by unqualified Midwives.	3,213	3,776	4,172
Percentage of confinements attended by unqualified Midwives	49·59	51·63	57·03



The following Table shows the Infantile Mortality rate for the past five years:—

1922	...	327·62
1923	...	341·61
1924	...	352·63
1925	...	351·85
1926	...	320·39

Practically speaking in our town for every three babies born, one dies before it reaches the first year of life.

During the year under report the total number of births registered in the City was 7,316 and the total number of deaths registered of infants having died before completing the first year of life was 2,150, giving an infantile mortality rate of 293·88 per 1,000 births. Unfortunately the births of a very large number of infants born in the town are not registered by the parents concerned as will be seen from the large number of births discovered by the vaccinators and Lady Health Visitors. A certain number escape being registered at all and some born outside town limits are brought in during the first year of the child's life and the deaths occurring in the latter are added to our town mortality figures though the births are not correspondingly registered here. Thus the number of deaths is swelled by children born outside and the figure of infantile death-rate 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 above lines the actual infantile mortality rate of our Town would be much lower. However, even then the figure would be a very high one compared to those of countries in the West.

Poverty, ignorance, insanitary dwellings and injudicious infant feeding are though the principal causes of high infantile mortality in every City, not a little is contributed by the mother before the child is born, as the health and life, of the new-born infant very greatly depend upon the health, care and attendance given to the mother before, during and after confinement.

As stated in my previous year's reports the measures for the reduction of infant mortality group themselves under maternity and child welfare centres which should comprise the following:—

- (1) Home visiting by Lady Health Visitors for finding out prospective mothers, cases of sickness among mothers and infants, enquiry into the condition of the new-born infants and instructions by homely talk on sanitation, cleanliness, domestic hygiene and breast-feeding.
- (2) Maternity Homes and Shelters for the poor.



- (3) Free attendance by qualified midwives on confinements at home of the poor, of the purdah-nashin women who would not go to the shelter.
- (4) Free provision of necessities and comforts during the lying-in period.
- (5) Infant milk depots for cheap or free distribution of pure milk to infants and children of the poor up to the age of 18 months.
- (6) Infant welfare centres where the sick infants of the poor are admitted and treated.
- (7) Antenatal clinics to give proper care and treatment to the expectant mother.

The Society for the promotion of Infant Welfare in Rangoon has been carrying on good work in Rangoon, but much yet remains to be done.

It has been a matter of great regret that our City does not possess a single Maternity and Infant Welfare Clinic where prospective mothers may receive the care and attendance needed during the most critical period of their life and where antenatal care of the infant to be born may be taken.

The most important period of a child's life is the nine months of life prior to birth and during this vitally important period it is, that the mother's health and the child's life are at stake. This antenatal period is practically as important as the period following birth in preventing all causes of ill-health that lead to premature or early death. The tragic aspect of the whole thing is that all these causes which lead to premature deaths are very largely preventable.

It only stands to reason if every child receives medical care and attendance from the earliest stage of its existence down to two or three years after its birth and if every mother has the privilege of being attended to during the whole course of her pregnancy, the chances of life and healthy normal growth of the new-born are immeasurably superior to those of children born without any such aid or care and come under medical aid only when already in the grip of disease and death. I need hardly emphasize here that any public money spent or contributed towards any maternity or child welfare centre would be productive of utmost benefit to the poor, the most helpless and the most deserving of the population. Thousands of valuable lives are at present being sacrificed to the altar of ignorance, poverty and helplessness of the poor.

Every circle of our City should have its own maternity shelter maintained or subsidised 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 upbringing 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 after.

This will not only greatly ameliorate the pitiable lot of the suffering poor but much unnecessary waste of infant life and life-long suffering of the poor mothers from largely preventable diseases will be prevented.

### Plague.

During the year 178 cases of Plague with 168 deaths were recorded, giving a case mortality rate of 94·38 as compared with 286 cases with 257 deaths in the preceding year giving a case mortality rate of 89·86. Of the 178 cases reported, 139 were males and 39 females. The death-rate per 1,000 of population for the year was 0·49 and the average for the past five years is 2·29.

The disease was at its height in the months of February and July. The age period most affected was between 20 and 30 years and the Hindu Community suffered more heavily than the other Communities in the Town.

43 cases were treated in the Contagious Diseases Hospital and of these 34 died, giving a case mortality rate of 79·07. 135 cases were treated in their homes of whom 134 died, giving a case mortality rate of 99·25.

Of the total number of cases 17 were ascertained to have been imported. Of the imported cases 16 or 94·12 per cent died.

Statement showing the number of rats caught month by month, the number of rats examined at the Corporation Laboratory, the number found infected and the number of Plague Seizures in 1927 is as follows:—

Month.	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	65,846	3,219	6	0·18	19	18
February	56,025	3,186	12	0·37	23	23
March	68,515	3,577	11	0·30	10	9
April	68,343	3,852	13	0·33	10	10
May	69,704	4,134	5	0·12	14	13
Carried over ...	3,28,433	17,968	47	1·30	76	73



Month.	No. of rats caught.	No. of rats examined.	No. of rats found infected.	Percentage of infection.	No. of Plague seizures.	No. of Plague deaths.
Brought forward ...	3,28,433	17,968	47	1.30	76	73
June	74,632	3,907	12	0.30	15	12
July	79,193	4,391	6	0.13	23	22
August	72,207	3,336	7	0.20	15	13
September	72,130	4,261	6	0.14	9	9
October	79,557	3,775	6	0.15	13	13
November	78,230	3,924	3	0.07	13	13
December	80,580	3,540	3	0.08	14	13
Total	8,64,962	45,102	90	2.37	178	168

### Inoculation.

During the year under review 162 persons were inoculated.

### Cleaning and Disinfection.

40,010 houses and house-sites were cleaned and 1,733 houses disinfected by the Plague Staff. The houses in the poorer quarters of the town were as usual cleaned free of charge.

### Destruction of Rats.

8,64,962 rats were destroyed during the year of which 45,102 were examined at the Corporation Laboratory and 90 were reported to be Plague infected. The corresponding figures for 1926 were 6,69,184 destroyed. 38,419 examined and 128 found infected.

In addition to the permanent 18 gangs, 8 temporary gangs were again engaged during the year under report for the purpose of site cleaning and extensive ratting in kutcha areas.

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

Year.	Inoculations.	Houses and house-sites cleaned.	Houses disinfected.	Rats destroyed.	No. of Plague deaths.
1922 ...	5,561	7,233	2,112	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



There is no other part of the Province, however heavily infected, where such a rigorous warfare has been launched against this pest of rodents as in this City. An intensive campaign against the rat population of this town was launched by me no sooner I had assumed charge of this Department and though it has cost the Corporation some large sums of money the results achieved have been extremely gratifying. Extra gangs have been entertained for intensive ratting and cleaning of house-sites since the year 1924 and from the statement given herewith, it will be seen that with the increased number of rats destroyed and the house-sites cleaned, there has been a corresponding decrease in the number of plague cases reported during the past five years as compared with previous years.

I have dealt with this subject at some length in my printed report on the Re-Organisation of the Health Department at pages 17-23 and in the memorandum submitted to the Health Enquiry Committee to which I would like to invite reference for fuller details.

### **Cholera.**

118 cases of Cholera with 84 deaths were reported during the year. The corresponding figures for the previous year were 226 cases and 149 deaths. Of the total number of cases reported 18 (amongst which 13 deaths occurred) were ascertained to have been imported. The disease was at its height in February.

62 cases were treated in the Contagious Diseases Hospital of which 28 died, giving a case mortality rate of 45·16. 56 cases were treated at home of which 56 died, giving a case mortality rate of cent per cent. The death-rate per 1,000 population was 0·24 and the average for the past five years is 0·38.

This disease too is widely prevalent in the whole of this Province during its epidemic season with the same features of greater virulence at certain intervals. 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. Every year in the hot weather the supply of water is very scarce in the districts and villages of this Province. Wells and tanks generally dry up completely. Water has to be scooped out from many a well, tank or shallow pool and carried long distances. As a last source, river or creek water is resorted to. When these conditions arise, with the first contamination of the source of water with Cholera germs passed by a carrier or a suffering case, a general outbreak of the disease breaks out into an epidemic form.

This disease and many other known as water-borne diseases have been completely eradicated from many a City by the introduction of adequate and wholesome water supply by pipes. Wherever an adequate provision of wholesome pipe water supply has been introduced, thus doing away with the sources of any chance infection, Cholera has been got rid of without any other effort. The same has been the result noted in our town but unfortunately there are many areas still in existence where the town pipe 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 all the cases of Cholera that we usually get in Rangoon are mostly from these places. The infection generally is brought from the district where Cholera is more or less endemic and breaks out in epidemic form every year during the hot season. Rangoon is perennially at the mercy of these imported cases of Cholera from the districts, coming as they do by rail, river and road without any restriction. A great portion of the City is well protected against the inroads of this disease by the provision of pipe water supply but a large part is still exposed to the ravages of this disease once it is introduced. Greatest vigilance on the part of the Health Department of this Corporation is needed to prevent infection from imported cases and outside sources. What a formidable task it is on account of this too frequent interchange of the migratory and riverine population coming from infected parts of the Province, few have realised. To what danger we are exposed, my reports on the local outbreak of this disease at Lower Kemmendine given at page 26 of my Annual Report of the Contagious Diseases Hospital for the year 1922 and on the outbreak at Dalla during the year 1926 as given in my monthly report for the month of August 1926, will convey some faint idea. However, it is not a little gratifying to note that so far the Health Department of this City has been most successful in its efforts in warding off any serious outbreak in our town and has very creditably guarded the health and life of the teeming masses against the ravages of this terrible disease. Unless and until our whole town is supplied with adequate and wholesome pipe water supply, this infection coming from outside the town will continue to constitute a standing cause of anxiety to the authorities concerned and a grave menace to the health of this City.

### Small-pox.

771 cases of Small-pox were reported during the year of which 73 were ascertained to have been imported. The number of deaths recorded was 203, giving a case mortality rate of 26.32 per cent.

In 1926 the total number of cases recorded was 149 with 42 deaths.

The death-rate per 1,000 of the population was 0.59 and the average for the past five years is 0.70.

Of the total number of deaths, 43 occurred amongst the cases in which Vaccination scars were visible, 70 deaths amongst the cases said to have been vaccinated in infancy but in which no scars were visible and 90 amongst the unvaccinated. From the above statement it will be seen that the majority of the deaths had taken place amongst those who had not been vaccinated and those who though said to have been vaccinated in infancy had no marks visible and were practically unprotected.

63 children under the age of 5 were attacked with Small-pox and there were 40 deaths. Of these 16 were vaccinated and 10 died, 29 were unvaccinated and 18 died. 18 cases were said to have been vaccinated in infancy but no marks were visible and 12 died.



The disease was at its height in the months of February, March and April and the total number of cases reported during these 3 months were 105, 172 and 196 respectively.

649 cases including no cases of the previous year were treated in the Contagious Diseases Hospital of which 114 died giving a case mortality rate of 17.56.

122 cases were treated in their homes of which 89 died, giving a case mortality rate of 72.95.

The following Table gives the monthly statement of the number of cases recorded during the year :—

1927.		No. of cases reported.
January	...	15
February	...	105
March	...	172
April	...	196
May	...	75
June	...	43
July	...	42
August	...	15
September	...	9
October	...	19
November	...	7
December	...	73
Total		771

The following table gives the total number of vaccinations performed during the year under report :—

January	...	7,968
February	...	10,909
March	...	14,666
April	...	9,409
May	...	9,018
June	...	5,682
July	...	5,528
August	...	5,618
September	...	5,137
October	...	6,860
November	...	9,267
December	...	8,133
Total		98,195



# Vaccinal Condition of cases of Small-pox at the Contagious Diseases Hospital during 1927.

Ages.	Vaccinated as evidenced by presence of one or more Vaccination cicatrices.	Stated to have been successfully vaccinated but no vaccination cicatrix present.	Stated to be unvaccinated (vaccinated unsuccessfully) and no vaccination cicatrix present.	Previously unvaccinated but vaccinated during incubation of Small-pox.	Stated to have been successfully re-vaccinated.
under 1 year	1		6 3°	1	
1 year	3 1*		3 2°		
2 "	" "		4 2°		
3 "	1 1*		4 1*		
4 "	" "		" "		
5 "	" "		1		
6 "	1	1	1		
7 "	" "		3		
8 "	" "		1 1*		
9 "	1		" "		
10 "	2		5		
11 "	4		1		
12 "	5		5 1*		
13 "	2		2		
14 "	7 1*		7 1*		
15 "	6		8 3*		
16-20	110 8*	1	46 13*		2
21-25	127 8*		46 16*		3
26-30	99 11*		48 19*		3
31-35	39 4*		19 10*		
36-40	9 1*		9 5*		
41-50	5		4 2*		
51-60	1		Nil		
61-70	"		"		
71-80	"		"		
81 & upwards.	"		"		
Total	423 35°	2	223 179 *	1	8

° Shows deaths under each age period.

The epidemic of Small-pox has been an event of perennial occurrence in our city. 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 and the very large number of the unprotected people in the population afford excellent opportunities for this disease to spread like wild-fire. Every three years or thereabouts a more virulent wave of the epidemic sweeps through the town claiming a heavier toll of life than usual.

A regular campaign of vaccination and revaccination of all the inhabitants of the infected areas, registered buildings, cooly lines, mill barracks, workshops, schools and other public places was carried out. Repeated visits were paid to all infected houses to find out new cases and every effort made by inspection at different hours of the day to bring all the contacts who may have escaped our vaccination gangs and all new comers under control.



The greatest difficulty is experienced on account of the extremely fluctuating nature of the floating population and the unique conditions of labour found in this city. Week after week the same house once infected has to be inspected and at every visit a batch of new comers is found to have arrived in that house for a temporary stay either on their way home or back to districts in search of work, and all the labours of our contact vaccination of the previous week are thus miserably frustrated.

For the present vaccination by calf lymph is the simplest and the surest preventive against the ravages of this dreadful disease. Unfortunately vaccination does not grant life long immunity. The protection granted by first or primary vaccination fades away in time generally after a period of seven years or so. That is why we see so many of the adult population though vaccinated in infancy suffer from Small-pox during epidemic times. Hence the very great necessity of revaccination after seven years of the primary vaccination. In this reference the greatest opposition is met from the Burmese Community who do not as a rule like to be revaccinated in adult life, thinking once done in infancy is good enough. It would be well to impress upon them that as explained above immunity or protection granted by primary vaccination lasts for a certain number of years only and the safest thing to do during the epidemic is to get ourselves re-vaccinated again irrespective of previous vaccinations.

I need only refer to my previous reports enumerated herewith viz: my Annual Reports for the years 1923, 1924 and 1925 and my Special Report on the Annual Recrudescence of Small-pox in Rangoon and the necessity for the introduction of Compulsory Re-vaccination Act, submitted in the year 1924.

I have already dealt with this subject in a most exhaustive way and the Corporation have endorsed the suggestions made therein for some measures for the introduction of Compulsory Revaccination of all those coming to this Province. This Report of mine had been forwarded to the Government with the recommendations of the Corporation and I am happy to state here that though this question of revaccination of the immigrant labourers coming to this Province was first raised by me in my Annual Report of the town of Bassein for the year 1914, it has just been settled. Assent has been given by His Excellency the Governor-General in India to the Burma Act No. IV of 1928, amending the Burma Vaccination Law Amendment Act of 1909 where by 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 revaccinated within seven years preceding his arrival in Burma. This will mean that over 300,000 persons will have to be vaccinated every year at the Port Health Station. The question of vaccination of all immigrants coming to Burma through the Port of Rangoon though no doubt was taken up by the Government on our representation, is yet of Provincial interest and I have no doubt when the provisions of this new Act are properly and efficiently carried out, the whole of the Province of Burma including Rangoon will be given a measure of protection so long denied against the annual recrudescence of this terrible disease.



### Influenza.

61 deaths from Influenza were reported during the year as compared with 37 deaths in the previous year. 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	...	...	3	1	...	...	...	4
February	...	...	2	...	...	...	2	4
March	...	...	2	1	...	...	1	4
April	...	...	3	1	2	...	...	6
May	...	...	...	1	1	1	2	5
June	1	1	2	...	2	...	1	7
July	...	...	1	...	2	...	...	3
August	...	...	1	2	...	...	1	4
September	...	...	1	2	...	1	...	4
October	...	...	10	...	2	...	...	12
November	...	...	1	4	...	...	1	6
December	...	...	...	2	...	...	...	2
Total	1	1	26	14	9	2	8	61

The death-rate per 1,000 population for the year was 0.18 and the average for the past five years is 0.32.

### Enteric Fever.

157 cases with 74 deaths were reported during the year under review as compared with 179 cases and 78 deaths in the previous year.

The number of deaths reported in each of the previous five years is given below:—

1922	...	...	...	...	...	43
1923	...	...	...	...	...	47
1924	...	...	...	...	...	63
1925	...	...	...	...	...	44
1926	...	...	...	...	...	78

The death-rate per 1,000 population for the year was 0.21 and the average for the previous five years is 0.16.



### **Malarial Fever.**

During the year 219 deaths were registered as compared with 220 deaths in the preceding year, giving a death-rate of 0·63. The average for the last five years is 0·86.

### **Diarrhoea & Dysentery.**

Diarrhoea and Dysentery accounted for 1,040 deaths as compared with 1,695 deaths in 1926. Of these 214 were reported from Hospitals and Other Public Institutions. The death-rate per mille of population was 3·01, the average for the last five years being 3·23.

Another disease that has been the cause of the heavy mortality in this town is that group of Bowel complaints commonly known as Diarrhoea and Dysentery. The germs of these diseases are more or less ubiquitous all the World over and till late, contaminated water supply used to bear the whole brunt of the accusation. With increase in knowledge, other factors besides polluted water or food supply have come into prominence. Filth and flies have had their share. With greater knowledge, it has now been definitely established that the "human carrier", healthy or otherwise, is the most predominant cause of the spread of this and other infectious diseases. Mankind throughout the World is the victim of this disease and a large number of the people harbour the germs of this disease like those of many other diseases such as Enteric, Cholera, Diphtheria, Scarlatina etc., in their systems. The infection of these various diseases is chiefly conveyed by the agency of human carriers. In the case of Dysentery, Cholera and Enteric, these germs are conveyed in the contaminated articles of food or drink or water supply, sometimes through the agency of flies which visit first the latrines and then the dinner table. But this source of infection is not a very potent one as is generally supposed to be.

We have had frequent local outbreaks of Cholera and Dysentery in our town and in every instance my enquiries have gathered unequivocal evidence of the spread of infection by contacts and carriers alone. Flies there were in abundance but beyond an occasional source of infection, their role in the spread of infection was practically insignificant. It is especially 'carriers' and contacts of suffering cases who have to handle foodstuffs, such as cooks, table-boys and personal attendants who are responsible for conveying the infection.

The carrier condition may persist throughout life and though in itself appears to be harmless for the time being, it is really a most dangerous condition. It may well be compared to a sleeping volcano. In the first place the carrier passes infective germs from time to time which may anytime infect food or water supplies of the locality and pass on the disease to other people. Thus he is a constant source of danger to others. Secondly, like the sleeping volcano when it becomes active, the germs lying dormant so long burst forth in their wildest fury, anytime due to fatigue, chill or any indiscretion in diet, when the carriers safety barrier breaks down, the germs get an upper hand, his long enjoyed immunity vanishes and he himself falls a victim to an acute attack of the disease of which he himself is the progenitor.



Thus it is that the infection of this disease is carried on from man to man, with varying exacerbations in its prevalence as helped by other factors prevailing at any particular season. The annual recrudescence of this disease in every country depends upon the following chief factors. The total number of the inhabitants harbouring these germs, the total number of healthy carriers, the total number of convalescent carriers, the conditions of water and food supply, the habits and social life of the Community and lastly but not of least importance is the prevailing meteorological and climatic conditions which vary from season to season and year to year.

Now let us examine the conditions of our town in reference to this particular disease. Of the total population of our town, 1,25,626 are Hindus, 62,070 Mohammedans, 1,14,319 Buddhists, 25,310 Christians and 18,180 Others, making a total of 3,45,505 according to the 1921 Census.

I have prepared some graphs showing mortality rates from Dysentery for the past 20 years in various parts of the Province and Cities of Bombay, Calcutta, Madras, Singapore and Colombo compared with that of our City.

From these graphs it is evident that Madras heads the list by easy length. The prevalence of Dysentery in Madras is more than twice as much as in Rangoon. Even some of the parts of our own Province are worse affected than our City.

Now the two most glaring facts these charts reveal are firstly that Dysentery is endemic in the Province of Burma and secondly that Dysentery is equally bad in Calcutta and worse in Singapore and Madras.

As we have noted before Madras easily heads the list and the bulk of our population comes from that Province. Does it require any great effort of imagination to visualise the hundreds and thousands of human carriers, healthy and convalescent, that pour into this town year in and year out from that Province who spread and develop the disease in the course of their period of life in this City with the first lapse in their health or surroundings? The same climatic condition that gives rise to the undue prevalence of Dysentery any year is the cause of the unusual breeding of flies noted during that year. It is only a coincidence and the public have been led to form a wrong conception of flies being the sole or the chief cause of the spread of Dysentery.

These diseases are not either usually or truly dependent upon defective sanitary conditions alone. It is a matter of common knowledge that many diseases have a fairly constant relation to season. There is ample evidence to indicate that changes of climate, temperature and humidity, particularly in their effect on the young and the aged are the real basis of the evil reputation of climate in relation to Diarrhoea and Dysentery and similar ailments all the World over.



Sir Leonard Rogers has very recently demonstrated from a study of the average monthly Cholera incidence and its comparison with the rainfall, temperature and humidity in 45 divisions of India, that a regular great decline or disappearance of the disease in all parts of India has taken place when the absolute humidity fell to or below 0.400, such dryness of the atmosphere preventing the epidemic prevalence of the disease. The months in which Cholera showed a great increase were those in which the absolute humidity first rose to over 0.400. Similar conclusions have been arrived at in the study of Small-pox in its relation to Climatic conditions.

There is a close relation with meteorological conditions of the incidence and prevalence of many a disease. So has insect life.

Flies, fleas and mosquitoes are all subject to these changes in climate. Why has Madras enjoyed complete immunity from Plague so long when other towns and cities have paid and are paying such a heavy toll in life for the past 30 years? The Plague Commission that was appointed by the Home Government has clearly demonstrated the fact that the tension of the aqueous vapour must be at least 0.36 or thereabouts before an epidemic could occur. In Plague as in Malaria, as declared by Colonel Gill, the absolute humidity exercises its effect on the insect vector. In the report recently published, the Malarial Commission of the League of Nations have clearly demonstrated the effect of temperature and humidity on the development of Malarial parasites in the Mosquito. The Authors of this report have even gone to the length of discussing in detail the influence of temperature, humidity and season on the infectivity of Mosquitoes. The same changes in meteorological conditions that influence insect life, influence human beings also by either increasing or lowering their susceptibility or resistance to disease. I have dwelt at some length on this subject of climate because doubts have been expressed on the statements I have made in my reports on Dysentery, of the influence of climate in the causation of the last epidemic and because attempts have been made to attribute the undue prevalence of flies in the last fly season wholly to the methods adopted at the Corporation Rubbish Disposal Grounds.

Few realise as yet how enormously important are biological factors influencing the question of whether any particular period of the year or season will be suitable or not for the increased or decreased growth of insect life.

The same climatic conditions that had brought about this increased prevalence of Dysentery in the town in the year 1926 was the cause of the unusual numbers of flies here as well as in the districts miles away from our Rubbish Tips and in other parts of the Province.

This subject has been equally exhaustively dealt with by me in my reports (1) on the epidemic of Dysentery, its cause, Spread and Prevention, (2) on the Fly Nuisance and its Menace to health, and (3) in my reply to a communication that



had appeared in the "Rangoon Times" on this subject and I need hardly make any further comment than to emphasise the fact that the carrier condition of the masses described above is practically impossible to contend with or eradicate.

In this connection the following extracts are of interest. Lieutenant-Colonel J. Morrison, I.M.S., Officiating Director, Pasteur Institute, Rangoon, in his Report on the working of the Burma Pasteur Institute for the year ending March 1927 makes the following comment on Dysentery:—

"The epidemic of bacillary dysentery which attacked Rangoon during 1926 was investigated with an interesting result. The prevalence of flies led to the belief that these were in the main responsible for the epidemic; but the fatal cases recorded by the Health Officer and cases of illness at one of the largest of the Municipal dispensaries were found to have a scattered distribution that did not support the view that the disease was spread from case to case by fly infection of food. The epidemic of the right bank of the river (i.e. at Dalla) did not occur at the same time and seemed to have no connection with the main epidemic in Rangoon City. The epidemic in the City occurred in definite waves each of which was preceded by a heavy rainfall. Further, though dysentery was unusually severe during 1926, a year with a heavy and peculiarly distributed rainfall, it was found that during each of the five preceding monsoons, increased deaths from dysentery followed every heavy fall of rain at the same interval as they did during 1926. The only deduction that seemed possible was that the chief cause of the epidemic was pollution of the Hlawga Lake and possibly the local wells occurring with each heavy rainfall."

The Inspector-General of Civil Hospitals in his Annual Report on the Hospitals and Dispensaries in Burma for the year 1926 says—"36,744 cases were treated, an increase of 27 per cent. This proved to be largely water-borne and emphasizes the backward state of the water supplies of the Province."

The Director of Public Health in his Report on the Public Health Administration of Burma for the year 1926 states as follows under the heading "Dysentery and Diarrhoea" "The province as a whole and Lower Burma in particular suffered more from these diseases than in any of the preceding four years.....The diseases commenced in February, reached their zenith in July and declined sharply in August."

"The floods of June and July and the unusual prevalence of flies during the past year were apparently the main causes of the unusually high incidence."



This rapid and sharp decline in the epidemic of dysentery in the month of August is a very significant incidence in the cause and spread of this disease on the fly-borne theory as flies continue to abound till late in the month of September. Similarly, if flies be the main cause of the spread of this disease, why should they convey dysentery germs alone and not of Cholera or Enteric, which both are more or less endemic throughout the year. Cholera is endemic in the Province of Burma and its greatest incidence closely follows the greatest scarcity of water wherever felt i.e. in the dry months of April and May, when flies are scarce.

With the first heavy downpour of rain, no sooner the tanks and wells begin to refill, Cholera begins to subside, and by the end of June or July when the fly season is at its best, Cholera beats a hasty retreat. If anything, the advent of great numbers of flies coincides exactly with the disappearance of Cholera. This needs accounting for if the fly-borne theory is to be maintained.

Lieutenant-Colonel W. C. Ross, I. M. S., Director of Public Health Bihar and Orissa, though laying due stress on the importance of transmission by "contact" and "carrier" is one of the strongest exponents of the Fly-borne theory in the spread of Cholera epidemics.

In a communication that has appeared in the Indian Journal of Medical Research, dated April 1928, he states as follows:—

"I, myself, in 1912 and subsequently have definitely associated the epidemic prevalence of Cholera with Climatic conditions of high temperature and humidity and with the prevalence of flies which is the direct outcome of the combination of favourable temperature and humidity conditions.

Each outbreak has its origin in a "carrier" and the only source of infection is human excreta.

The relationship between Cholera and Climatic conditions favourable to the multiplication of flies does not imply that the fly is the only means of transmission. It is not. But its presence in large numbers, may and most probably does, make the difference in the balance of things which precipitates the onset of an epidemic. When therefore we consider that the conditions favouring the epidemic prevalence of Cholera are regular and recurring, the facts and circumstances taken into consideration with the Climatic conditions and the seasonal periodicity of such epidemics, indicate that the fly is a most important factor in these epidemics.



Transmission by contact is obvious but its importance as a general means of transmission has been gravely overlooked by those writers who have had little practical experience in handling epidemics.

It is the most direct and the most rapid means of transmission. It is in my opinion the most important factor at the outbreak of Cholera in creating a sufficient mass of infected material to give rise to a local epidemic.

Transmission by flies is supported by the experimental work of Major Greig at Puri which demonstrated its great potentialities and by the fact that all apparent discrepancies in theories and discordant observations by different writers are reconcilable if this theory be accepted.....It explains how Cholera can become epidemic all over a large area at once when both carriers and flies are present.....Lastly and of fundamental importance is the fact that transmission by flies is the only general explanation which is reconcilable with all the observed facts and which can produce harmony in a number of otherwise discordant observations."

Sir L. Rogers has shown that "in Lower Burma low rainfall shows a remarkably close relationship to increased Cholera in this typically endemic area with comparatively slight yearly variation."

Similarly the frequency with which flies have been thought to be the main factor in the spread of Cholera raises the same question of how far the seasonal prevalence of flies here in Burma coincides with the prevalence of the Cholera epidemic year after year.

The rainfall in Rangoon averages almost 100 inches per year, nevertheless the fact remains that we have a definite period of dry and wet seasons. Throughout the Province the annual recrudescence of Cholera takes place in the dry and hot months of March, April and May when the well and tank water reaches its lowest level and when the flies are so scarce. Cholera incidence is highest just before a plentiful supply of the first rains and by July steadily declines and reaches its minimum in the Autumn months of the year. It is hard to reconcile this steady decline in the epidemic when the fly season is at its best.

We have seen above how dysentery too rapidly declines in the month of August though the flies continue unabated till the end of September or thereabouts.

This disease takes more or less an epidemic form during its seasonal prevalence just before and for some time after the break of the Monsoons. The water supply of our City since chlorination has been introduced is above suspicion, so the only measure available for the prevention of this disease is to immunise the population against the germs of this disease.



I have brought to the notice of the Committee, the new method discovered for this purpose by Professor Bisredka of the Pasteur Institute of Paris of vaccinating the intestines with the specific germs of such intestinal diseases as Cholera, Typhoid and Dysentery by the oral administration of a preparation called **Bilivaccin**, containing heat-killed and dessicated germs of these diseases. The Public Health Committee of the Corporation have readily granted the necessary funds for the trial of this form of preventive measure against Dysentery and Cholera. I have already started with the distribution of Anti-dysenteric bilivaccin on a fairly large scale and from the records maintained in my office I hope to be in a position by the end of this year to ascertain how far it is efficacious in preventing an attack of bacillary dysentery amongst the vaccinated.

The full particulars of this new method of vaccination by the mouth against Cholera, Typhoid and Dysentery have been described by me in the printed leaflet circulated some time back and it will now be possible to completely eradicate the prevalence of these three diseases from any Community, Town or Village by vaccination of the populace once every year by means of these bilivaccins.

### Tuberculosis.

964 deaths from Tuberculosis were reported, giving a death-rate of 76.2 per mille as compared with 1,152 deaths giving a death-rate of 3.33 in the previous year. Of these, 902 deaths were recorded as Phthisis. Of the 964 who died of this disease, 662 were males and 302 females, giving a death-rate of 2.77 and 2.83 respectively. The highest number of deaths were recorded from Lanmadaw, Taroktan and Theinbyu.

Of the 964 deaths, 342 were recorded in Hospitals and Other Public Institutions.

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

Year. (Census Population).	Male. Death-rate.	Female. Death-rate.
1922 ...	3.07	3.03
1923 ...	2.59	3.10
1924 ...	2.78	3.46
1925 ...	3.35	4.21
1926 ...	3.21	3.61



The death-rate amongst the various Communities was as follows :—

Hindus	...	2.75
Mohammedans and Malays	...	2.40
Buddhists	...	3.49
Christians	...	0.55
Other Classes	...	3.14

The following statement gives the number of deaths from Tuberculosis and Respiratory Diseases with their Death-rate per 1,000 of the population for the past ten years.

Year.	Tuberculosis 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.
1918	703	2.40	1,868	6.37
1919	816	2.78	1,932	6.59
1920	801	2.73	2,157	7.35
1921	856	2.50	2,241	6.55
1922	994	2.91	2,197	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

The total number of deaths from Tuberculosis last year was 964, and it would be safe to compute therefrom that the number of suffering must be at least twenty times that number i.e. there are nearly 20,000 or more cases of this disease in one or other stages of this disease. Of course no specific remedy has as yet been discovered for the relief or treatment of this fell disease but a good deal of help, relief and good could be rendered to the suffering case in an outdoor Tuberculosis Clinic where early cases would be detected and medical relief given, advanced cases sent to hospitals or appropriate homes and the patient's home visited and proper instructions given to prevent the spread of the disease to other inmates of the house.

I have dealt with this subject fully in my Annual Report for the year 1925 and I need only make one comment here that such an outdoor Clinic for Tuberculosis was first opened in England in the year 1886 and the total number of such Clinics now in existence in England alone has exceeded the figure of 450.



Though over 40 years have passed since its first inception in England, there is at present not a single Institute of its kind throughout the Province either for early, late or advanced cases of Phthisis.

Tuberculosis has long been considered all the World over to constitute one of the formidable problems of National health. Mortality from Tuberculosis has been considerably reduced in all such countries which have established outdoor Tuberculosis Clinics for the detection, advice and treatment of early cases, sanatoria and residential institutions for the care and treatment of suffering cases, isolation hospitals for the advanced cases and vocational training centres and village settlements for the after care of all those cured, relieved or in whom the disease has been found to have been arrested by the Sanatorium and Clinic treatment. Earlier diagnosis better treatment and greater care exercised by the patients who have come under the educative influence of the Tuberculosis Officer and the Home Health Visitor, to prevent further spread of infection have evidently contributed not a little towards this decline in the mortality of Phthisis, though better housing and better conditions of living and better wages would constitute the most formidable grounds on which the best progress could be achieved. The housing conditions in our town have been simply calamitous. I need only make a passing reference here to the appalling state of the living rooms I have described in my note referred to above and it is in these dark, ill-ventilated houses where the Sun's rays hardly ever penetrate that this disease takes its biggest toll. The existing building bye-laws have been proved to be extremely defective. In an extremely well-laid out town, these defective bye-laws have allowed houses and buildings to be so constructed as to hardly ever allow proper air, light or sunshine to enter the living rooms which are moreover so fearfully overcrowded. Tuberculosis is largely related to housing conditions and all preventive measures should first centre in the attempt to provide sanitary dwellings for the people to live in. The middle and inner rooms of most of the houses in our City have not a single door, window or an aperture opening direct into external air and these rooms are so dark as one has to grope his way about even at the brightest hour of the day.

The chief source of infection is from man to man and this occurs chiefly through inhalation. Sunlight is the most deadly foe to bacterial life. So far as Tuberculosis is concerned, as long as these dark, ill-ventilated houses abound in our City, there will be people rich and poor alike who will be obliged to occupy them and so long will this fell disease continue to take its heavy toll of young human lives.

I could therefore hardly urge too strongly the dire necessity of introducing some such measures in the Buildings bye-laws as outlined by me in my annual Report for the year 1925.

### **Respiratory Diseases. (Excluding Phthisis.)**

2,476 deaths were registered from this disease as compared with 2,585 deaths in the previous year. Of these, 316 deaths were recorded in Hospitals and Other Public Institutions. The death-rate per 1,000 population was 7.17 as compared with 7.48 in the previous year, the mean ratio for the past five years being 6.71.



### Cerebro-Spinal Fever.

17 cases with 10 deaths from this disease were recorded as compared with 11 cases and 8 deaths in the previous year.

8 deaths were registered in the Hospitals and Other Public Institutions. The death-rate per 1,000 population was 0·03 as compared with 0·02 in the previous year and 0·06 the average for the past five years.

### Beri-Beri.

107 deaths were registered as compared with 46 deaths in the previous year. Of these 93 deaths were reported from Hospitals and Other Public Institutions.

The death-rate per 1,000 population for the year was 0·31 and the average for the past five years is 0·25.

The following Table gives the death-rate for the various Races :—

Race.	Number of deaths.			Death-rate.
	Male.	Female.	Total.	
Hindus ...	76	7	83	·66
Mohammedans and				
Malays ...	13	...	13	·21
Buddhists ...	4	1	5	·04
Christians ...	5	...	5	·20
Other Classes	1	...	1	·06
	99	8	107	0·31

### Puerperal Septicaemia.

32 cases of Puerperal Septicaemia with 29 deaths were recorded during the year as compared with 21 cases and 18 deaths in the previous year. The death-rate per 1,000 population was 0·08 and the average for the past five years is 0·07.

Of the above total number of cases reported, 17 cases were attended by qualified Midwives.

### Measles.

125 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. The figures for the corresponding year were 172 cases and 14 deaths with a death-rate of 0·04.

The average for the past five years is 0·02.

### Chicken-pox.

255 cases of Chicken-pox were reported during the year and there were no deaths as compared with 239 cases and no deaths in the previous year.



### Diphtheria.

23 cases of Diphtheria with 10 deaths were reported during the year as compared with 12 cases and 5 deaths in the previous year.

The death-rate was 0·03 as compared with 0·01 in the previous year.

### Cancer.

30 deaths from Cancer were recorded during the year giving a death-rate of 0·09 per 1,000 of population as compared with 29 deaths with a death-rate of 0·08 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	Hindus.	Moha- medans.	Burmese.	Chinese.	Euro- peans.	Anglo- Indians.	Other Classes.	Total.
Jaws	1	...	...	1	...	1	...	3
Breast	1	...	...	1	...	...	...	2
Uterus	...	...	2	...	...	...	1	3
Stomach	1	1	1	3	2	1	...	9
Cervix	...	...	1	...	...	1	...	2
Liver	1	2	...	...	...	...	...	3
Throat	...	1	...	...	...	...	...	1
Tongue	...	1	...	1	...	...	...	2
Duodenum	...	...	1	...	...	...	...	1
Neck	...	...	...	...	...	1	...	1
Pyolorus	1	...	...	...	...	...	...	1
Parts not known	...	...	1	...	...	...	1	2
Total	5	5	6	6	2	4	2	30

### Epidemic Dropsy.

During the year 5 fatal cases were reported as compared with 1 fatal case for the previous year, giving a death-rate of 0·01 per 1,000 of population. Of the 5 deaths 1 was reported from Rangoon General Hospital, 2 from Ram Krishna Hospital and the other 2 by Private Medical Practitioners.



## Kala-Azar.

7 deaths from Kala-Azar were reported during the year under report and the death-rate was 0.02 as compared with 5 deaths in the preceding year with a death-rate of 0.01.

Out of the 7 deaths 2 were reported from Ram Krishna Hospital 4 from Rangoon General Hospital and the remaining one death was imported from India as per details below :—

Date of death.	Name.	Sex.	Age.	Occupation.	Race.	Residence at time of death.	Residence previous to last illness.	Cause of death and duration of illness.
4-1-27	Bhagaban Das	Male	25 years	cooly.	Hindu	R. K. Hospl. 28 days.	88, 39th Street.	Kala Azar
26-1-27	S. Ahmed	Male	20 years	Nil	Mhd.	R. K. Hospl. 6 weeks	82 Merchant Street.	Kala Azar
24-2-27	Abdul Rasid	Male	20 years	Nil	Mhd.	R. G. H.	270 Commissioner Road	Kala Azar
26-2-27	Mohamed	Male	6 years	Nil	Mhd.	19, 32nd St. 1 year.	India.	Kala Azar 1½ years.
28-3-27	Abdul Karim	Male	18 years	Nil	Mhd.	R. G. H.	30, Brooking Street.	Kala Azar
11-9-27	Anar Aly	Male	25 years	Nil	Mhd.	R. G. H.	R. E. T. Power Station.	Kala Azar
26-9-27	Abdul Malib	Male	18 years	Nil	Mhd.	R. G. H.	45, 37th St.	Kala Azar

## Epidemic Dropsy.

During the year 5 fatal cases were reported as compared with 1 fatal case for the previous year, giving a death-rate of 0.01 per 1,000 of population. Of the 5 deaths 1 was reported from Rangoon General Hospital, 2 from Ram Krishna Hospital and the other 2 by Private Medical Practitioners.



The following Table gives the number of deaths and death-rate per 1,000 of population from some of the principal causes of deaths in 1927 as compared with those of 1926 and the average of the preceding ten years :—

Cause of Death.	1926.		1927.		Average for 10 years.	
	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.
Plague „ „	257	0·74	168	0·49	995	2·88
Cholera „ „	149	0·43	4	0·24	117	·34
Small-pox „ „	42	0·12	203	0·59	211	·62
Influenza „ „	37	0·11	61	0·18	861	2·49
Enteric „ „	78	0·23	74	0·21	42	·12
Malaria „ „	220	0·64	219	0·63	314	·91
Tuberculosis „ „	1,152	3·33	964	2·79	966	2·80
Diseases of Respiratory system	2,585	7·48	2,476	7·17	2,110	6·11
Diarrhoea & Dysentery	1,695	4·91	1,040	3·01	1,101	3·19
Beri Beri „ „	46	0·13	115	0·33	96	·28
Puerperal Septicaemia	18	0·05	29	0·08	32	·09

The following table gives a summary of the work of Vaccination, Sanitary and Epidemic Sections for the past 12 years.

Calendar Year.	Total No. of Vaccinations performed. (Official year).	No. of Sanitary notices issued.	No. of block-ages cleared.	No. of rats destroyed.	No. of houses and house-sites disinfected and cleaned.	Total number of Plague cases.	
						attacks.	Deaths.
1916	64,466	8,276	3,054	3,85,161	11,355	1,921	1,810
1917	29,494	10,002	3,339	4,20,052	12,636	1,378	1,288
1918	53,050	10,659	3,854	3,30,924	13,135	1,776	1,668
1919	48,219	12,241	3,254	2,54,401	5,034	841	782
1920	34,603	11,072	3,047	3,45,750	9,399	1,210	1,127
1921	42,630	10,490	2,995	4,05,178	7,126	1,229	1,126
1922	45,788	11,973	3,999	4,08,785	9,345	1,522	1,402
1923	59,944	12,076	6,012	4,96,987	16,955	1,285	1,159
1924	98,493	13,211	18,240	6,30,907	37,522	554	505
1925	82,579	15,768	15,364	6,04,250	35,737	724	620
1926	85,320	17,041	22,765	6,69,084	30,485	286	257
1927	1,37,773	20,286	22,118	8,64,962	41,743	178	168



### Contagious Diseases and Observation Hospitals.

The reports of the Medical Officer on the working of the above Hospitals for the year 1927 are appended herewith.

The following Table gives a summary of the work done at the Contagious Diseases Hospital during the year 1927.

Diseases.	Patients remaining in hospital on the 31st December 1926.	No. of patients admitted during the year 1927.	Total number treated.	Discharged cured.	Died.	Case mortality rate per cent.	Patients remaining in hospital on the 31st December 1927.
Plague	...	43	43	8	34	79.07	1
Cholera	2	60	62	33	28	45.16	...
Small-pox	...	649	649	478	114	17.56	57
Chicken-pox	3	218	221	210	...	...	11
Measles	...	76	76	67	...	...	9
Mumps	1	114	115	113	...	...	2
Diphtheria	..	11	11	6	3	27.27	2
Erysipelas	...	13	13	10	3	23.08	...
Influenza	1	7	8	5	3	37.50	...
Cerebro-Spinal Meningitis	...	12	12	7	5	41.67	...
Diarrhoea	...	32	32	28	4	12.50	...
Adenitis	...	15	15	15	...	...	...
All other diseases	2	217	219	180	37	16.89	...
Grand Total	9	1,467	1,476	1,160	231	15.65	85

### Medical Relief.

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

Below is a brief account of each of the four Dispensaries.

**1. Dalla Dispensary:**—The total number of attendance of the out-door patients at this Dispensary during the year under report was 20,999 (14,666 males 2,095 females, 2,444 male children and 1,794 female children) as compared with 21,534 patients in the previous year. Of this total attendance there were 13,474 new cases.

The daily average of attendance during the year under report was 57.53 as compared with 59 in the previous year.



2. *Theinbyu Dispensary*.—The total number of attendance of the out-door patients at the Dispensary during the year under report was 43,196 (25,136 males 7,436 females 5,681 male children and 4,943 female children) as compared with 38,082 patients in the previous year. Of these total attendance there were 19,098 new cases.

The daily average of attendance during the year under report was 118·35 as compared with 104·0 in the previous year.

3. *Forest Road Dispensary*.—The total number of attendance of the out-door patients at this Dispensary during the year under report was 31,303 (18,170 males, 6,007 females, 4,182 male children and 2,944 female children) as compared with 27,452 patients in the previous year. Of this total attendance, there were 12,039 new cases.

The daily average attendance during the year was 86 as compared with 75·00 in the previous year.

4. *Kanaungto Dispensary*.—The total number of attendance of the out-door patients at this Dispensary during the year under report was 28,736 (18,677 males 4,373 females, 3,309 male children and 2,377 female children) as compared with 27,178 patients in the previous year. Of this total attendance there were 14,042 new cases.

The daily average attendance during the year under report was 79·7 as compared with 75·00 in the previous year.

The patients attending the above Dispensaries belonged to the poor working class in general.

The following is a statement of work done by the Medical Officer for the Examination of Rickshaw Pullers and Attendance to Staff of Municipal Stations.

The Medical Officer was appointed in June 1926.

#### Medical Examination of Rickshaw pullers.

	1926. June to December.	1927 January to December.	Rate per cent.
No. of Pullers examined	6,212	10,678	
No. of Pullers passed fit	5,564	8,140	76·23
No. of Pullers rejected	648	2,538	23·77

#### Of the rejected the following defects were noted :—

Under Age	55	1,052	41·45
Old Age and General Debility	45	447	17·61
T. B. Lungs	73	129	5·08
Heart Disease	401	753	29·67
Varicose Veins	40	104	4·10
Defective Vision	18	30	1·18
Deformities	9	14	·55
Enlarged Spleen	5	Nil	...
Enlarged Liver	Nil	2	·08
Hydrocele	Nil	4	·16
Hernia	2	3	·12
	<hr/> 648	<hr/> 2,538	



## Medical attendance to the Staff of:—

(a) Central and Lanmadaw Fire Stations	161	247
No. of cases attended	of which (a) 9 were injuries & (b) 2 deaths 1 accident in workshop, 1 Pneumonia at R. G. Hospital.	of which 21 were injuries due to accidents.
(b) Motor Transport Department.	32	151
No. of cases attended	of which 2 were accidents.	of which 16 were injuries due to accidents.
(c) Yegu Pumping Station.	35	60
No. of cases attended	of which 4 were injuries due to accidents & 1 death from Dysentery at Hospital.	1 death at Hospital due to accident.
(d) Compressor Station	80	120
No. of cases attended		of which 1 Small-pox, 1 Chicken-pox.
(e) Water & Sewage Department , Ejector & Sewerage Department	30	62
No. of cases attended	of which 6 were injuries due to accidents.	of which 10 were injuries.
(f) Scott Market.	Nil	201
No. of cases attended		of which 6 due to accidents and 1 case of Small-pox (from June to December 1927).

## Ambulances.

The following Table gives a full statement of the work done by the Ambulance Cars during the year 1927 :—

		No. of Trips.	No. of Patients.
1. Accident Cases	...	1,062	1,062
2. Observation Cases	...	661	2,648
3. Infectious Cases	...	1,060	1,605
	Grand Total	<u>2,783</u>	<u>5,315</u>

## 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 is in charge of the cleanliness and sanitation of the Scott Market.



## Laboratory.

Below is given a statement of work done at the Corporation Laboratory during the year :—

Bacteriological. Specimens Examined			Total.	Chemical Analyses carried out.			Total.
Water	...	...	41	Bhosee	...	...	1
Water for Larva	...	...	2	Bread	...	...	3
Soda Water	...	...	35	Butter	...	...	1
Condensed Milk	...	...	3	Chilli	...	...	1
Milk	...	...	2	Coal	...	...	6
Rats for P. B.	...	...	45,102	Corriander	...	...	1
Blood for 1 M. P.	...	...	127	Disinfectant	...	...	2
2 P. B.	...	...	64				
3 T. A. B.	...	...	7	Dye	...	...	3
4 L. D. Bodies	...	...	5				
5 Total count	...	...	3	Ghee	...	...	17
6 Differential count	...	...	40				
7 Haemoglobin per cent.	...	...	3	Lemonade	...	...	25
8 Colour Index	...	...	1				
9 Corpuscular Ratio	...	...	1	Milk	...	...	45
10 Formol-gel Test	...	...	1				
11 Globulin Test	...	...	2	Milk, condensed	...	...	24
12 Parasitic skin Diseases	...	...	1	Milk, dried powder	...	...	1
Horse blood for B. Anthracis	..	...	2	Milk, condensed for colouring matter			7
Stools for 1 C. B.	...	...	222	Oil cake	...	...	2
2 P. B.	...	...	53				
3 T. B.	...	...	42	Paint (white)	...	...	1
4 Amoeba	...	...	201				
5 B. Shiga	...	...	35	Pitch	...	...	12
6 Ova R.W. etc.	...	...	165				
7 Ankylostomas	...	...	2	Rice	...	...	2
Sputum for 1 T.B.	...	...	182				
2 Pneumococci	...	...	66	Tar	...	...	5
3 B. Influenza	...	...	36				
4 P. B.	...	...	5	Tea	...	...	22
C. S. Fluid for 1 Meningococci	...	...	11	Turmeric	...	...	1
2 Pneumococci	...	...	1				
3 T. B.	...	...	5	Urine	...	...	242
4 P. B.	...	...	1				
5 M. P.	...	...	1	Vinegar	...	...	2
Throat Swab for 1 B. Diphtheria	...	...	96	Water	...	...	35
2 Meningococci	...	...	3	Water-at Yegu Pumping Station	...	...	318
Gland smear for P. B.	...	...	50	Stools, for presence of Phosphorous			1
Pus for Gonococci	...	...	21				
Vomit for P. B.	...	...	1				
Ulcer scrapping for 1 Spr. Pallida.	...	...	1				
2 B. Lepa	...	...	1				
Pustule for 1 Spiro Palida	...	...	2				
2 Streptococci	...	...	1				
Urine for B. Coli	...	...	2				
Fish gut for 1 Amoeba	...	...	3				
2 B. Shiga	...	...	3				
3 B. Gartner	...	...	3				
4 T. A. B. . .	...	...	3				
Total	...		46,660				780



### Materials supplied to and materials sterilized for different stations :—

Distilled Water (pounds)	...	534
Fly Paste (pounds)	...	270½
Chlorine Solution (pounds)	...	147
Sterilization of packets	...	25

### Jerked Meat.

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

111 inspections were made by the Food Inspectors and 21,963 bundles of such meat were inspected by them before delivery.

The following is a statement of articles of unwholesome food and drink seized and destroyed during the year 1927 :—

#### By Inspectors.

Milk	...	1275	viss.
Butter	...	21	lbs.
Aerated Water	...	144	bottles
Fish (Fresh)	...	996¾	viss
Prawns (fresh)	...	31	"
Fish (dry)	...	32½	"
Fish (tinned)	...	768	tins
Meat (fresh)	...	40¼	viss
Meat (dry)	...	8½	viss & 1 leg Ham.
Eggs	...	2,451	Nos.
Potatoes	...	306½	viss
Onions	...	1,440	"
Vegetables	...	1,252¼	"
Fruits (fresh)	...	40,802	Nos.
" (preserved)	...	508	tins
Condensed Milk	...	5,257	"
Biscuits	...	163¾	lbs. & 2 viss
Bread	...	240½	lbs.
Patent Food	...	1,592	tins
Indian Sweetmeat	...	28¼	viss
Cocoanuts	...	14	Nos.
Tinned Milk	...	853	Cases & 23, 844 tins.

#### On request from various firms.

Sterilized Milk	...	966	tins
Cream	...	1,353	"
Cocoa	...	11	"
Patent Food	...	640	tins, 6 bottles and
		16	ozs.
Butter	...	364	tins
Cheese	...	1	tin
Feeders	...	7	Nos.



Fish (tinned)	...	...	1,011½	Cases and 1,776 tins
Meat (dry)	...	...	159	tins
			3	cases
			10	sides (bacon)
			278½	lbs.
			13	bundles.
Chocolates	...	...	1	bundle
			76	packets
			33	pieces
			65	boxes
			64	rolls
			118	slabs
			59	tins
			2	sticks.
Cigarettes	...	...	73	tins & 12 bags
Tobacco	...	...	276	tins
Vermicelli	...	...	204	lbs.
Shredded Wheat	...	...	89	packets

### Ghee Samples.

129 samples of ghee were taken under the Ghee Act. 54 cases were reported to be adulterated by the Chemical Examiner to the Government of Burma. 18 defaulters were warned departmentally as the Ghee sold by them was found to be only slightly adulterated 3 cases were not sent up for prosecution as the samples were taken at the instance of Councillor Mr. M. M. Rafi, for court purposes.

The remaining 34 cases plus one of last year were sent up for prosecution. In 24 cases the parties were fined to a total amount of Rs. 1,775, 1 case was struck off, 2 cases were acquitted and the rest of the 8 cases were pending when the year was closed.

### Eating Houses & Tea-shops.

During the year under report 10,326 Inspections were made by the Food Inspectors and 769 Licenses were issued.

### Dhoby Khana.

The total number of tanks at the Dhoby Wash House is 544 and the average number of Dhobies using them daily is 800.

### Burial Grounds.

All the Burial Grounds are properly looked after and burial passes regularly checked and collected. Proposals for the acquisition of new land for the extension of Corporation burial grounds are under consideration.

### Hides.

The construction of Hide Godowns in the newly acquired Neikban quarter has been completed and is ready for occupation, and no new License will be issued for the year 1928 for this business in the originally restricted Lanmadaw area of the town.



### Public Latrines and Urinals.

During the year under report 3 Public Conveniences were constructed (1) in Dalhousie Park, (2) corner of Dalhousie and 24th Streets, and (3) in the Hide Godowns, Neikban Quarter, at a total cost of Rs 8,074-9-0.

Another Public Convenience at the corner of Canal Street and China Street is under construction.

The total number of Public Latrines and Urinals in the town is 54.

### Registered Buildings.

The following statement gives the total number of Registered buildings in the City and the number inspected for overcrowding etc. :—

Total number of registered Buildings struck off the Register in 1927	...	52
Total number registered in 1927.	...	58
Total number of Registered Buildings on 31st, December 1927.	{ Lodging houses	1,554
	{ Mill Cooly barracks	117
Total number of persons allowed to live	{ Lodging houses	72,801
	{ Mill Cooly barracks	20,040
Total number of inspections of Registered Buildings during 1927 (this includes 390 Registered Buildings that were inspected more than once in the year)	...	1,032
Percentage of inspection to the total number of buildings registered	...	61.75
No. of individual rooms of Registered Buildings in which overcrowding was found	...	1,894
Total No. of Registered Buildings exempted from the operation of the Rule regarding 36 sq. feet floor space	...	85
No. of Registered Buildings prosecutions tried	...	1,472
Amount of fines imposed	Rs.	16,232
	Plus Cost Rs.	1,472

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.	No.	No. of labourers for whom accommodation is provided.	No. of barracks.
Rice Mill	43	12,898	205
Saw Mill	21	6,299	44
Workshop	1	850	11
Dockyard	3	3,660	18
Ice and Aerated Water Factory	1	50	3
Miscellaneous Trades	7	360	10
Total	76	24,117	291



The following Statement gives a Summary of the work done in this Department during the year 1927.

No. of Notices issued	...	20,181
No. of cases sent up for prosecution	...	3,485
No. of cases tried	...	3,325
Fines imposed	...	Rs. 26,380-8-0
Cost awarded	...	Rs. 2,564-0-0
No. of cases pending with the Municipal prosecutor or in Court up to the end of the year.	...	1,294
No. of complaints received	...	542
No. of inter departmental reports issued	...	591
No. of Licenses issued :—		
Milk	...	103
Ice cream & Sherbet	...	89
Aerated Waters	...	22
Dangerous & Offensive Trades	...	966
Hides	...	14
Public Eating House & Tea stalls	...	769
No. of letters received	...	9,362
No. of letters issued	...	14,162
No. of houses condemned under section 156	...	1
No. of houses vacated under section 156	...	Nil
No. of persons evicted	...	Nil
Amount of fees paid during the year for notification of infectious diseases by Private Medical Practitioners.	...	Rs. 190-0-0

### Revenue Received.

Issue of Licenses for Offensive and Dangerous Trades etc.	...	7,785	8	0
Issue of Licenses for Public Eating houses	...	10,515	0	0
Issue of Wash house tickets	...	17,428	7	6
Lease of Ironing shed at Dhoby Wash house	...	2,130	0	0
Issue of extracts of Births & Deaths	...	448	8	0
Miscellaneous	...	201	14	0

The following is a summary of Inspections made by the Sanitary Inspectors and Sanitary Works completed during the year 1927.

### A. Nature of Inspections or premises visited.

1. Dwelling houses excluding R. B. houses	...	...	...	36,207
2. Milch cattle stables	...	...	...	807
3. Other stables	...	...	...	2,045
4. Milk, Ice cream & Sherbet shops	...	...	...	...
5. Public Eating houses & Tea shops, etc.	...	...	...	10,289
6. R.B. Houses (1) Day	...	...	...	10,872
(2) Night	...	...	...	1,802
7. Markets, Cinemas & Schools—No. of visits.	...	...	...	4,240
8. Aerated Water Works	...	...	...	293
9. Other workshops & factories	...	...	...	1,130
10. Building works	...	...	...	1,055
11. Drains & Fittings	...	...	...	7,709
12. Inspection of places where dangerous and offensive articles are stored.	...	...	...	3,334
13. Houses where epidemic diseases occurred	...	...	...	945
14. Other Inspections & Inquiries	...	...	...	2,294

Total No. of Inspections . . .  
made by Sanitary Inspectors

83,935



## B. Works, etc., completed.

1. Dwellings.			
(a) Limewashed	...	...	1,667
(b) Kitchen floors repaired	...	...	1,444
(c) W. Cs. repaired	...	...	714
(d) New W. Cs. provided	...	...	73
(e) Water storage tanks cleaned	...	...	16,154
2. Stables.			
(a) Paved & drained	...	...	474
(b) Cleaned & refuse removed.	...	...	555
3. Markets, Theatres & Schools			
Sanitary requirements carried out.	...	...	233
4. Dangerous & Offensive Trades			
(a) Licenses issued	...	...	966
(b) Licenses cancelled	...	...	Nil
5. Milk, Ice & Aerated Water, Sherbet & Ice cream shops.			
(a) Licenses issued	...	...	214
(b) Licenses cancelled	...	...	Nil
6. Public Eating Houses & Teashops, etc.			
(a) Licenses issued.	...	...	769
(b) Licenses cancelled.	...	...	6
7. Factories & Workshops.			
Limewashing etc., carried out.	...	...	177
8. Repairs, etc., done through Corporation Plumbers.	...	...	645
9. No. of cases of accumulation of refuse, rank vegetation etc., removed.	...	...	1,584
10. Latrine tubs provided.	...	...	882
11. Blockages removed.	...	...	22,118
12. Other Works completed.	...	...	706
Total Sanitary Works completed ...			49,381

The following statement shows the work done by the Lady Health Visitors and Vaccinators for the year ending 31st December 1927.

No. of births verified	...	...	3,635
No. of unregistered births detected	...	...	2,786
No. of Small-pox cases found during house to house inspection.	...	...	50
No. of Notices served	...	...	8,997
No. of prosecutions	...	...	Nil
No. of Schools inspected	...	...	130
No. of School children inspected.	20,781	No. vaccinated.	1,879
No. of Mills inspected	...		73
No. of persons inspected	... 11,616	No. vaccinated.	6,561
No. of children vaccinated (Primary operation)	...	...	10,690
Total No. of vaccinations performed during the Calendar year under report. ...			98,195



### Staff.

The superior staff of the Health Department consists of the Health Officer and three Assistant Health Officers.

The Health Officer, Dr. K. R. Dalal, L.M. & S., D.T.M., D.P.H., was on 8 months' leave from the 9th February to 8th October 1927 and the Assistant Health Officer, West, Dr. J. Hormasji, L.R.C.P. L.R.C.S. (Edin) D.P.H., acted for him. Dr. N. S. Kotwall, M.B., B.S., D.P.H., acted for Dr. J. Hormasji and again for Dr. S. Rodriguez, M.B., CH.B., D.P.H., Personal Assistant to the Health Officer, who went on 8 months' leave from the 18th August 1927.

Dr. B. P. Srivastava, M.B., B.S., D.P.H., was the Assistant Health Officer, East from the beginning of the year and he assumed the charge of Personal Assistant to the Health Officer from the 10th October 1927.

Mr. D. M. Gangolli, M.Sc., B.A., was in charge of the Laboratory during the year under report.

### VACCINATION REPORT FOR THE YEAR 1927-1928.

The total number of vaccination performed during the year 1927-1928 was 1,37,773. This figure includes 44,937 primary operations performed among passengers on arrival of Steamers from other ports by Corporation Vaccinators under instructions of the Port Health Authorities.

Of the total number of Vaccinations recorded 56,067 were primary vaccinations and 81,706 revaccinations.

The corresponding figures for the years 1925-1926 and 1926-27 were 82,579 (50,765 primary and 31,814 revaccinations) and 85,320 (60,019 primary and 25,301 revaccinations) showing an increase of 5,302 in primary operations and an increase of 49,892 in revaccinations as compared with the figures of 1925-26 and a decrease of 4,952 in primary operations and an increase of 56,405 in revaccinations as compared with the figures of 1926-27.

The number of successful vaccinations was 37,881 showing an increase of 18,216 as compared with the figures of 1925-26 and an increase of 20,971 as compared with the figures of 1926-27.

7,500 vaccinations were performed in the Rangoon Central Jail (vide Table No. IV).

9,155 children under the age of six years were successfully vaccinated showing an increase of 534 and an increase of 169 as compared with the figures for 1925-26 and 1926-27 respectively.

The percentage of successful cases was 97.54 in primary vaccinations and 50.20 in revaccinations. The corresponding figures for the year 1925-26 and 1926-27 were 99.62 and 45.32 and 98.38 and 42.36 respectively.



*The following is a Statement showing the number of births registered and the number of children (under one year of age) vaccinated during the year, January to December 1927.*

Names of Stations.	No. of children born last year and not vaccinated.	No. of births registered during the year.	No. of children who were born outside Corporation limits and have come to Rangoon before vaccination.	Total.	No. of children vaccinated during the year.	No. died.	No left Rangoon before vaccination.	No. kept for vaccination next year.	Total.	PARTICULARS OF CHILDREN LEFT RANGOON FOR VACCINATION.				REMARKS.
										Total No.	No. in which intimation sent.	No. in which reply received.	No. in which no reply received.	
Central Depot	480	1,179	1,630	3,289	2,238	167	322	562	3,289	322	37	10	27	
Kanmendinge	326	698	899	1,923	1,371	136	50	366	1,923	50	..	..	..	
Forest Road	268	733	702	1,703	1,149	124	153	277	1,703	153	17	..	..	
Theinbyu	541	1,426	2,483	4,450	3,226	313	241	670	4,450	241	10	3	7	
Lanmadaw	207	884	394	1,485	981	157	129	218	1,485	129	11	2	9	
Botataung	458	777	115	1,350	713	87	198	352	1,350	198	26	..	..	
Dalla	128	318	94	540	317	56	26	141	540	26	..	..	..	
Kanaungto	110	215	401	726	569	41	35	81	726	35	..	..	..	
Dufferin Hospital, etc.,	..	1,086	..	1,086	399	178	389	120	1,086	..	..	..	..	
Total	2,518	7,316	6,718	16,552	10,963	1,259	1,543	2,787	16,552	1,154	101	15	43	



**Small-pox:**—The total number of attacks for the year was 771 with 203 deaths as compared with 329 attacks and 81 deaths during the year 1926-27 and 733 attacks and 318 deaths during the year 1925-26.

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

During the year under report 154 Schools were inspected and out of 23,334 children inspected 3,947 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.

During the year under report 76 mills were inspected and out of 16,333 coolies inspected 10,452 were vaccinated.

House to house inspection gangs were formed to detect all suffering cases, to send them to the Contagious Diseases Hospital and to carry out immediate vaccination of all contacts and disinfection of all the clothing, bedding and the premises.

**Staff:**—Medical Registrar Mr. M. M. Das continued to act as Supervisor Vaccination up to the 18th June 1927. Mr. K. A. Mainker acted from 19th June to 9th August and Mr. Das again from the 15th August to 30th September.

Dr. B. G. Mahodaya M.B., B.S., was appointed to act as Supervisor Vaccination on 1st October and continued to so work up to the end of the year.

The number of Medical Registrars, Health Visitors and Assistant Registrar-Vaccinators remained the same but 6 temporary Vaccinators were in addition appointed for a period of 3 months from 14th February 1928.

**Cost.**—The cost of each successful case in 1927-28 was Rs. 0-3-9. In 1925-26 the cost was Rs. 0-10-11 and in 1926-27 was Rs. 0-8-3.

**Lymph:**—Lymph was obtained from Meiktila throughout the year under report and once from Calcutta. Of 64,030 tubes of vaccine lymph obtained including 890 tubes from Calcutta. 58,403 were issued to the Corporation Vaccinators, 5,627 to Private Medical Practitioners etc. leaving no balance at the end of the year.

**Prosecutions**—118 Cases were sent up for prosecution for failure to report Small-pox cases in time. Of these prosecutions 36 were convicted, 72 of them were struck off, 8 acquitted and two cases of December 1927 are still pending in court.

There was no prosecution under the Vaccination Act during the year,



## VETERINARY AND CONSERVANCY REPORT FOR THE YEAR 1927-28.

### CONTAGIOUS DISEASES (ANIMAL.)

**Glanders.**—12 animals exhibiting clinical symptoms of this disease were detected. Of these 11 were destroyed and 1 died. 519 ponies were tested with mallein. Of these 466 were released being negative results, 26 proved to be reactors and destroyed and 27 gave doubtful results and were released. These figures compare with 10 clinicals, (6 destroyed and 4 died) in the preceding year with an average of 9 clinicals and 56 reactors for the past 3 years.

Rs. 1,520 was paid as compensation for the ponies destroyed.

**Epizootic Lymphangitis.**—No case was detected this year. Last year there was 1 case.

**Surra.**—12 cases were discovered on postmortem at the Knackery and 3 more cases were suspected to be of surra.

**Anthrax.**—4 equines were discovered on postmortem at the Knackery.

**Cattle Plague.**—There were 4 cases of this disease. None had occurred in the Municipal stud. The corresponding figures of the previous year were 24 and 1 respectively.

**Rabies.**—It is reported by the Pasteur Institute that brains of 69 dogs from Rangoon including 1 sent by this Department were examined for rabies of which 57 were positive, 10 negative and 2 were unfit for examination. 2 Dog Poisoners and 4 coolies continued to be employed during the year and the bodies of 8,226 dogs were received at the crematorium as against 11,479 in the preceding year.

From the report of the Pasteur Institute Burma for the year ending 31st March 1927 it appears that there is a steady increase in the number of cases of Rabies from Rangoon City. Of the total number of 943 patients treated during the year, 579 or 61.4 percent of the patients treated were from Rangoon City.

I have already dealt with this subject at some length in my Annual report for the year 1925 and I am afraid until some such rules as there outlined are made it would be hopeless to expect any marked reduction in the large number of persons bitten year after year or the total extermination of this dreadful disease.

The following table gives the number of dogs found to be suffering from rabies in the city during the past 10 years (as reported by the Pasteur Institute):—

Year.	No of rabid animals.
1917-18	8
1918-19	5
1919-20	1
1920-21	5
1921-22	19
1922-23	30
1923-24	55
1924-25	41
1925-26	56
1926-27	43
1927-28	67



## SLAUGHTER HOUSES.

**Cattle, sheep and goats.**—The total number of animals slaughtered at the cattle slaughter house during the year was 1,51,417 producing revenue in fees to the amount of Rs. 1,77,106 as compared with 1,59,065 animals and Rs. 1,80,188 in the previous year.

The average of the preceding 3 years was 1,76,581 animals slaughtered and revenue received was Rs. 1,85,158.

The average daily number killed was as follows:—

Animals.	1924-25.	1925-26.	1926-27.	1927-28.
Buffaloes	5.5	6.4	5.1	4.9
Bullocks	49.3	46.6	43.7	42.1
Cows	24.3	32.3	43.1	47.4
Calves	4.5	7.4	12.3	12.2
Sheep	94.5	136.4	103.6	107.4
Goats	332.5	275.7	227.9	200.9

The following statement gives the number of animals presented for slaughter, the number passed, and the number rejected as unfit for slaughter:—

Animals.	Presented.	Passed.	Rejected.	Percentage Rejected.
Buffaloes	2,028	1,786	242	11.9
Bullocks	17,155	15,358	1,797	10.5
Cows	18,819	17,294	1,525	8.0
Calves	4,592	4,443	149	3.2
Sheep	39,339	39,183	156	0.4
Goats	73,591	73,340	251	0.3

The number of whole carcasses rejected on account of tuberculosis was 15 and the compensation paid to the butchers amounted to Rs. 410 as compared with 35 carcasses and Rs. 864 in the preceding year.

Regular inspection of meat was carried out during the year as usual.

**Tripe Dressing House.** The revenue derived during the year as per details shown below amounted to Rs. 2,612 as compared with Rs. 2,528 in the preceding year.

	Rs.
Cattle Tripe Boiling Fees	2,423
Sheep and Goat Tripe Boiling Fees	129
Sheep and Goat Tripe Cleaning Fees	60
Total Rs.	2,612

**Pigs.**—The total number of pigs slaughtered at the Pig Slaughter-house during the year was 25,388 giving an average of 69.6 per diem, as compared with 26,538 and an average of 72.7 in the preceding year. The revenue derived from slaughtering fees and styre rents was Rs. 29,963 as against Rs. 31,100 in the previous year.

The following table shows the number of pigs slaughtered, the rents from the styes and the slaughtering fees received during the past 3 years:—

Year.	No. of Pigs slaughtered.	Styre rent.	Slaughtering fees.	Total fees.
		Rs.	Rs.	Rs.
1924-25.	31,879	4,526	31,879	36,405
1925-26.	29,446	4,562	29,446	34,008
1926-27.	26,538	4,562	26,538	31,100
1927-28.	25,388	4,575	25,388	29,963



**Illicit Slaughter & Meat Sale.** During the year 480 licenses were issued for sale of meat which includes 101 licenses granted for the sale of offal and the fees from which amounted to Rs. 3,891.

337 Servants' Permits were also issued and the fees therefrom amounted to Rs. 337.

The following prosecutions were instituted during the year :—

Illicit slaughter of animals	...	...	...	...	...	1
Keeping animals in prohibited limits which probably would have been illicitly slaughtered	...	...	...	...	...	1
Keeping pigs within prohibited area	...	...	...	...	...	Nil
Selling or exposing for sale meat without license	...	...	...	...	...	76

Convictions were obtained in 106 cases and fines to the amount of Rs. 740 imposed as compared with 60 cases and Rs. 287 fines in the preceding year.

### Cattle Market.

The total number of animals brought to the Cattle Market during the year was 1,62,313 as compared with 1,71,367 in the previous year.

The following table shows the number of different kinds of animals brought to the Cattle Market and the revenue derived from fees during the last 3 years :—

Animals.				1924-25.	1925-26.	1926-27.	1927-28.
Buffaloes	..	...	...	2,154	2,401	1,983	1,906
Bullocks	...	...	..	19,990	19,352	17,089	16,262
Cows	...	...	...	10,079	13,674	18,027	20,246
Calves	...	...	...	915	1,849	2,531	2,137
Sheep	..	...	...	36,859	52,560	39,248	38,997
Goats	...	...	..	1,31,121	1,09,913	92,434	82,749
Ponies	...	...	...	22	38	55	16
Elephants	...	...	..	2	..	...	..
Total				2,01,142	1,99,787	1,71,367	162,313
				1924-25	1925-26	1926-27	1927-28
Total revenue derived from fees				Rs. 35,691	Rs. 32,704	Rs. 31,690	Rs. 33,513

**Pig Market.** The construction of the Pig Market was completed during the year and it was opened on the 15th January 1928. Accommodation is provided for about 800 pigs.

4,959 pigs were brought to the Market up to the end of the year and Rs. 1,887 was received as fees.

### CATTLE AND MEAT SHOW.

The annual exhibition of fat cattle, sheep and goats was held on the 21st December 1927, when Messrs. Anderson, Md. Auzam, Patail, and Dr. Murray acted as judges.



Rs. 1,995/- was awarded in money prizes including Rs. 360 contributed by the Agricultural Department of the Government of Burma for award in special prizes for the best Burma bred sheep and goats.

The proprietors of the Vienna Cafe and Continental Confectionary awarded a cup each.

The meat show took place as usual on the 24th December 1927 and Messrs. Patail, U Ba Dun, U Kin Maung and Anderson acted as judges. Rs. 630 was awarded in prizes.

The Surati Bara Bazaar Coy. Ltd., contributed Rs. 100 with which two cups were purchased and presented to the butchers. The Royal Hotel also offered a cup.

Rs. 135 was awarded as prizes for the best pigs slaughtered on the occasion of the Chinese New Year. Messrs. L. Choon Feng, U Tun Aung & Saw Hla Pru acted as judges.

Thanks of the Corporation are due to the gentlemen who acted as judges and also to all the donors who kindly offered cups.

**Knackery.** The statement below gives the number of carcasses received and destroyed during the last two years.

#### Animals.

#### Year.

	1926-27.	1927-28.
Buffaloes.	62	78
Bullocks, Cows and Calves.	1,336	1,177
Sheep and Goats.	1,005	1,023
Horses, Ponies and Mules.	316	268
Pigs.	25	23
Dogs.	11,479	8,226
Other Animals.	23	1
<b>Total.</b>	<b>14,246</b>	<b>10,796</b>

The incinerator besides serving as a crematorium for animal carcasses continued to be used for the destruction of damaged or condemned foodstuffs and old records.

A sum of Rs. 3,004 was realized from the sale of hides of carcasses as compared with Rs. 4,211 in the previous year.

**Bullock Depots.**—The three Depots, namely, Theinbyu, Ahlone and Kem-mendine continued to be maintained.

The total sanctioned strength of bullocks was 2,025. The actual numbers on the register at the beginning and close of the year were 1,321 and 1,050 respectively. During the year no bullocks were purchased. 162 bullocks were cast of which 154 were sold for slaughter and 8 destroyed. The average sale proceeds amounted to Rs. 38 for each animal and the average service rendered by these bullocks was 5 years and 7 months.



The corresponding figures for the last year were 160 animals cast and sold and the average sale price realised was Rs. 30 per head and the average period of service was 4 years and 7 months.

109 bullocks died during the year. The mortality rate was 9'0 on the monthly average of the strength of the stud as compared with 13'4 in the preceding year.

The average monthly cost of feed per bullock was Rs. 12-5-0 and upkeep Rs. 3-11-0 as compared with Rs. 12-11-7 and Rs. 4-1-10 respectively in the previous year.

With the introduction of motor lorries for Day Conservancy work the Bullock Depot Establishment has been greatly curtailed and the monthly expenditure reduced thereby is about Rs. 11,000.

Bullock Depot Workshop Establishment was abolished on the 1st November 1927 and all carts etc. are now repaired at the Corporation Workshop.

**Carts.**—The total number of carts of all descriptions maintained for service by this Department was 625.

**Cattle Pounds.**—The number of animals impounded during the year was 7,516 as compared with 7,608 in the preceding year. 17 were unclaimed and sold under section 14 of the Cattle Trespass Act and the sale proceeds amounted to Rs. 156.

The amount realized by the Corporation as fines and feeding fees was Rs. 4,784 and Rs. 416 respectively. The nett sale proceeds of unclaimed animals, credited to the Corporation funds was Rs. 29.

There was no prosecution under the cattle Trespass Act.

**Crow Nuisance.** Four temporary gangs for destruction of crows' nests and eggs were entertained during the year as usual for a period of 2 months and the total number of eggs etc. destroyed was 48,750 against 47,684.

**Rubbish Disposal.** Rubbish continued to be dumped at Mill Road, Ahlone and Kemmendine Depots. The question of acquisition of new sites for the western Division of the Town is under consideration.

The receipts from the sale of old rubbish, viz, black earth, manure etc. were Rs. 6,533 as compared with Rs. 6,825 in 1926-27.

**Reclamation Work.** No progress could be made regarding reclamation of Theinbyu Triangle and Dufferin Garden.

**Day Conservancy.** 5,07,259 cartloads of rubbish of [all kinds] which includes 58,667 motor lorry loads equalling 2,90,494 cartloads were removed during the year giving a daily average of 1,386 cartloads as compared with 1,290 cartloads in the previous year.



The following statement gives the total number of cartloads of rubbish removed during the past 5 years:—

Year.	Cartloads.
1922-23.	3,71,909
1923-24.	4,40,102
1924-25.	4,22,221
1925-26.	4,65,792
1926-27.	4,70,912
1927-28.	5,07,259

The question of the Motor Transport System for Day Conservancy work was first brought to the serious notice of the Corporation by me in the year 1924 and my proposals were mainly based on grounds of efficiency, as the then Bullock Transport though cheap was hardly able to cope with the rapidly increasing demands of the growing town as will be seen from the statement given above.

This system of Motor Lorries for Day Conservancy Transport work has been making a steady though rather slow progress since then under the control of the Motor Transport Officer, Mr. G. L. Tuppen, and by the end of the year under report, a greater portion of the town had come under its operation.

This system of transport has been based on a very sound principle and when the full development takes place and all the side drainage and other places for the collection of rubbish are provided with moveable iron containers ready for immediate removal by the S.D. Freighters type of Motor Lorries introduced for this purpose, all the town refuse will be most economically and expeditiously removed without creating nuisance of any sort.

The only thing to be guarded against is the obsession one is likely to get for the most economical running of this show on business lines, which would mean sacrifice of efficiency to the altar of economy. Economy at the cost of efficiency, where the matters of health are concerned, spells disaster. This system is still in its transitional stage and the complaints from the public of the non-removal of rubbish from many a quarter as regularly as one would rightly expect, will continue for some time till this department is properly organised and fully equipped.

**Night Conservancy.**—53,624 cartloads of night-soil each of the capacity of 200 gallons were removed as compared with 50,539 cartloads in the previous year. The receipts from the miscellaneous night conservancy amounted to Rs. 3,007.



The following statement gives a summary of the work done in the Department during the year 1927-28:—

No. of cases sent up for prosecution	...	...	...	78
No. of cases tried	...	...	...	106
				Rs. A. P.
Fines imposed	...	...	...	740 0 0
Cost awarded	...	...	...	106 0 0
No. of cases pending with the M.P. or in Court at the end of the year	...	...	...	7
No. of licenses issued for sale of meat and offal including servant permits	...	...	...	817
No. of letters, bills etc. received	...	...	...	702
No. of letters, chalans etc. issued	...	...	...	2,416
No. of animals exhibiting clinical symptom of glanders detected and destroyed and died	...	...	...	...
No. of ponies tested with mallein	...	...	...	519
No. of dogs destroyed at the crematorium	...	...	...	8,226
No. of animals slaughtered at the cattle Slaughter house.	...	...	...	1,51,417
No. of whole carcasses rejected on account of tuberculosis and compensation paid for	...	...	...	15
No. of pigs slaughtered at the Pig Slaughter-house.	...	...	...	25,388
No. of animals brought to Cattle Market	...	...	...	1,62,313
No. of pigs brought to the Pig market (between 15th January and March 1928)	...	...	...	4,959
No. of carcasses received at the Knackery.	...	...	...	10,776
No. of animals impounded.	...	...	...	7,516
No. of cartloads of rubbish of all kinds removed.	...	...	...	5,07,259
No. of cartloads of night-soil removed.	...	...	...	53,624
No. of crows' eggs destroyed.	...	...	...	48,750

### REVENUE RECEIVED.

				Rs. As. P.
Cattle Slaughter House.	...	...	...	1,77,106 0 0
Tripe Dressing House.	...	...	...	2,612 0 0
Pig Slaughter House	...	...	...	29,963 0 0
Meat and Offal Licenses and Servant Permits.	...	...	...	4,228 0 0
Cattle Market.	...	...	...	33,513 0 0
Sale of Hides.	...	...	...	3,004 0 0
Cattle Pound Fines etc.	...	...	...	5,229 0 0
Sale of Manure.	...	...	...	6,533 0 0
Miscellaneous Night Conservancy.	...	...	...	3,007 0 0

**Staff.** Dr. M. A. Montaut continued to hold charge of Veterinary Officer, East, and Dr. U Shwe Hla Owne as Veterinary Officer, West. Dr. Montaut went on leave for two months and Dr. Shwe Hla Owne held charge of both Divisions. U Thin, Superintendent Cattle Slaughter House, proceeded on 3 months leave and Dr. Montaut carried on his duties in addition to his own.

### HEALTH OFFICER'S REMARKS.

The following table gives a comparative statement of the total number of deaths and the death-rate per 1,000 of the population per year for the past twenty-two years.



A comparative Statement of the total number of deaths and the death-rate per 1,000 of the Census and the Estimated Population for the year 1906 to 1927.

Year.	Deaths.	Death-rate (Census Population).	Death-rate (Estimated Population)
1906 ...	11,996	47.57	42.62
1907 ...	11,348	45.00	39.83
1908 ...	10,488	41.59	36.12
1909 ...	9,994	33.79	33.79
1910 ...	9,278	36.79	30.80
1911 ...	11,239	38.32	38.32
1912 ...	10,348	35.28	34.62
1913 ...	8,907	30.37	29.46
1914 ...	9,770	33.31	31.86
1915 ...	8,515	29.03	27.40
1916 ...	10,597	36.13	33.76
1917 ...	9,885	33.70	31.08
1918 ...	15,411	52.54	47.84
1919 ...	15,554	53.03	47.68
1920 ...	12,140	41.39	36.75
1921 ...	12,066	35.28	35.28
1922 ...	12,232	36.04	35.53
1923 ...	11,918	34.85	33.89
1924 ...	11,448	33.13	32.11
1925 ...	12,373	35.81	33.90
1926 ...	12,231	35.40	33.04
1927 ...	10,851	31.41	28.91

Here I shall first briefly deal with some of the principal factors which affect rather adversely the general death-rate of our City. They are as follows:—

(1) The death-rate in our town is much influenced by the constant movements of the migratory population. Rangoon Port is one of the largest emmigration and immigration Ports in the world. The total number of immigrants coming through this Port far exceeds 3,50,000 per annum. An



equal number is found to leave this Port every year. Rangoon City forms the centre of this movement and besides absorbing a large proportion of this migratory population, almost all of these emigrating and immigrating population pass a short or long period at one time or another of their journey in our town. At every in-coming and out-going season, our town accommodates an extremely large number of these people and the total population of the town far exceeds the number given in the last Census report. The actual death returns are calculated on the last Census population and hence the rate calculated shows a higher return than what it actually is.

(2) Our town is a rapidly growing City. Reclamation work has been carried out far and wide. New areas have been laid out and rapidly developed during the past five years. The population has grown *pari passu* and since the last Census, the increase in the population has been as rapid as it has been great. The last Census figures give 3,45,505 as the total population of our town whereas at the lowest computation a population of over 4,80,000 would be nearer the truth at present. If our death-rate be calculated on this figure it would give a more accurate ratio and the death-rate would be appreciably affected for good. There is a constant stream of immigrants, visitors and non-resident people flowing in our town by rail, river and road, besides the huge number of immigrants coming through the port oversea.

(3) The third great factor affecting the death-rate of a town is the age and sex distribution of the population in that town. The death-rate among the males is uniformly higher than among females. Similarly the very young and the old have higher death-rates. In our town the male population is more than double that of the female viz: 2,38,716 males and 1,06,789 females.

Again the population of children under 5 years of age and that of person above the age of 50, constitute nearly 13% of the total.

The death-rates in these two groups of life are nearly seven times higher than the mean average of the intermediate groups of life. It follows therefore that our town, in which a large proportion of the inhabitants consists of age groups less favourable to long life, would obviously show a higher death-rate.

(4) The fourth great factor in the general health and mortality of the inhabitants of any town is the marked influence exerted by the density of population. It is a well recognised fact all over the World that higher the density of population, greater the sickness rate and higher the mortality rate.

Our town unfortunately is not only subjected to this great density per square mile but to another and a more baneful density of over-crowding in rooms. The greatest harm comes from this overcrowding in living rooms. The true density that must be considered more important is the number of persons living together in each room. The number of persons on a given area gives, so say, the gross density of the population. The figures given in the table for this gross density of population per square mile in some of the most



important and industrial quarters of the town are simply colossal. Lanmadaw 1,13,241 per square mile; Laroktan 1,68,838 North-West Town 1,06,854 and North-East Town 1,35,524; per square mile.

The mean density of English population is about 551 persons per square mile, the mean of the whole Province of Burma is 94 per square mile and that of Rangoon 11,365 per square mile.

Coming to density per each living room, the figures of overcrowding found and prevalent in our town are simply appalling. The Census standard of overcrowding is anything over two persons to a room. In our town 20 to 40 persons per room is rather a rule than the exception.

In crowded Communities it is a matter of vital importance whether 500, 1,000 or 5,000 or more persons are living on a square mile. Where this ratio goes up to 1,60,000 and over per square mile as in our town, the disastrous effects on such a population could be better imagined than described. Early and rapid spread of infectious diseases is not the only evil in such instances. Overcrowding means poverty, ignorance of the most rudimentary laws of health, intemperance, drink, drug, depravity and crime. It is not so much the overcrowding itself but the absence of proper air, light and sunshine, close contact to cross infection and those other factors mostly drink and drug addiction which are associated with it that produce this high death-rate in such towns like Rangoon.

(5) Another great factor is the influence for good or otherwise which occupation has upon the general health and mortality of a town. Our town is unique in more respects than one. A great majority of the population is composed of the migratory labour population. The permanent residents of the town hardly comprise one third of the total population. In this latter even, the majority are of the lower grades of life.

Thus the bulk of our population constitutes that large class of the labour population—sweated labour as all the World over, with its concomitant penury, under nutrition, ignorance, drink, drug and other evils connected with their most unfortunate social conditions of life.

With such an over-whelming majority of this class of Community in our town, the general death-rate would obviously remain high unless and until all the evils associated with this unfortunate class of humanity is dealt with and a more humane treatment meted out to them.

(6) Another great factor in the high death-rate of our town is the wide extent of the drink and drug evil prevalent in the labouring class of the community. 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 scattered close to their industrial and living quarters, which sap the last drop of blood out of their half-starved bodies. The disastrous effects of alcoholic drink, Hlawza tody, and drugs like Opium, Morphine and Cocaine are generally very insidious in origin and the general health is so undermined in time that they form essential agents in the causation of various ailments and



render their victims ready prey to various diseases. A random visit any day to these various haunts of intemperance, drink and drugs, will reveal most glaringly the cause of so much sickness, disease and crime that fill our Jails, Lunatic Asylums and the Burial Grounds with their habitual victims. With such disastrous evil effects of drink on the body and mind of these ill-clad, ill-housed, half-starved community of the population of our town, is it little wonder dearth disease and death are so rampant. The real wonder is that the general death-rate should remain so low inspite of these vicious surroundings and the pity of it is that it is this community that forms the bulk of the population in our town.

Unless and until this veritable curse to humanity, the evil effects of drink and drug on this unfortunate class of the Community is removed root and branch, it will continue to exact its toll of human life, do what you like to improve the sanitation of the town.

Some idea of the extent of the drug evil prevalent will be gained from this large amount of contraband articles seized by the Police every month, and it is a well noted fact that for every pound of the article seized, ten times or more of it is safely smuggled undetected.

The League of Nations have fixed a standard figure of 12 lbs. of Opium per annum for 10,000 population to meet medical requirements. The average for all India is stated to be 24 lbs. where in Assam it is 104 lbs., in Punjab 120 lbs, in Bombay 86 lbs., in Calcutta 287 lbs, and in Rangoon 218 lbs. These figures clearly indicate the extent of the drug habit prevalent in particular towns.

The wide extent of the illicit traffic in Opium and other narcotic drugs in Rangoon is not a closed secret and the havoc done in the large body of its victims could be seen in the Jails, Lunatic Asylums and the annual death returns of the town.

(7) Another very great factor in the cause of this high general death-rate is the existence of a very large number of kutchra areas which are neither equipped with proper roads, drains and sewers, nor provided with pipe or wholesome water supply.

In a rapidly growing town, with such an extreme shortage of houses, the worse features of slum life become a hundredfold accentuated by the fearful over-crowding which necessity enforces.

Dark, ill-ventilated houses, on sites perennially flooded with rain or tidal waters or with stagnant pools of household sulliage waste, with scarcely a ray of direct Sunshine in the inner rooms any time of the year, are inhabited by hundreds and thousands of the poor class of the Community and with their poor wages, addictions to drink or drug, squalor and filth surrounding their social life form a tragic total complex of their slum life. There are thousands of houses, huts and hovels in our town which are unfit for human



habitation but it would be simply tragic to take action under the Act and dislodge the large number of people occupying these houses as they would be simply rendered homeless under the existing acute shortage of houses in the town, or would migrate to other areas and the remedy would be worse than the disease.

To relieve the prevailing state of overcrowding alone, more than 10,000 new tenements would have to be constructed and a similar number perhaps to replace houses unfit for human habitation and which ought to be demolished. This will give some idea of the stupendous task involved in clearing the slum areas of our town and providing proper and adequate accommodation to the densely populated and rapidly growing town of our size.

In an extremely well laid-out town, the unfettered and rapid growth in the population of the town area and the resulting concentration of industrial population within a limited centre has brought about all the dangers inherent thereof.

(8) Another great factor which adversely affects the general death-rate is the existence in our town of such large institutions as the General Hospital, the Mental Hospital and the Leper Asylum and the Homes for the Aged and Incurables.

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 chronic, acute or incurable diseases or ailments requiring surgical treatment. The mortality in all such cases is fairly high and all those whose cases have proved fatal are recorded in the deaths noted for our town and the town mortality rate is thus enhanced.

Of the total number of 10,851 deaths recorded for the year 1927 as many as 2,408 deaths or over 22 per cent were accounted for as having taken place in Hospitals and Other Public Institutions.

Similarly a large number of patients come to Rangoon from Districts, and other remote parts of the Province, in the hope of trying some relief of their sickness and ailments at the hands of Rangoon Doctors and Se-Sayas and all deaths taking place among them are simply registered as having taken place in this town and the town rate gets another addition to its unwarranted quota of outside deaths.

(9) Another very potent cause of increased sickness and the increased number of deaths in our town is the large number of imported cases suffering from various infectious diseases coming into our town from various parts of the Province by rail, road and river. Some of them enter the town while suffering in the acute stage of the disease and some in the incubation stage developing the disease after their arrival here. All these cases of acute infection come to light only when death occurs or when a house to house search is carried out by my department on suspicions being aroused or when the epidemic is prevalent.



In densely overcrowded rooms, houses and areas with the most primitive standard of social life and where poverty, squalor and filth reign supreme, the disastrous consequences and rapid spread of infection from a single suffering case of an infectious or dangerous disease among them had better be imagined than described.

Statement showing the number of attacks and deaths from Plague Cholera and Small-pox and the number of imported cases of the same for the period 1916-1926.

Year.	Plague.			Cholera.			Small pox.		
	Attacks.	Deaths.	Imported.	Attacks.	Deaths.	Imported.	Attacks.	Deaths.	Imported.
1916	1,921	1,810	226	92	73	19	1,023	343	196
1917	1,378	1,288	39	76	49	48	171	18	51
1918	1,776	1,688	48	90	74	50	297	95	117
1919	841	782	15	278	232	94	1,590	656	233
1920	1,210	1,127	18	74	61	39	467	120	119
1921	1,229	1,126	32	125	101	36	96	18	21
1922	1,522	1,402	43	373	264	34	286	72	41
1923	1,285	1,159	25	65	48	26	888	363	75
1924	554	505	30	167	32	34	304	99	63
1925	724	620	38	82	60	13	1,956	630	228
1926	286	257	34	226	149	51	149	42	42

Last year a total number of 73 cases suffering from Small-pox alone were definitely ascertained to have been imported cases of the disease from other parts of the Province and some more must have escaped detection.

Similarly Plague accounted for 17 imported cases and Cholera 18, during the year under reference.

(10) Another great factor in the general mortality of a City is the absence or prevalence of serious epidemic diseases. Unfortunately such serious diseases with very high mortality rates as Plague, Cholera and Small-pox are more or less endemic in this Province including our City.

I have already submitted some exhaustive reports on the annual recrudescence of these diseases to the Corporation on various occasions during the period I have been at the head of the Health Department. I have dealt with at some length in those reports on the causes of the prevalence of these diseases and the preventive measures that should be taken by the Corporation, the Government and the General Public. I need here only invite reference to the said reports for fuller details.



(11) Another factor which causes a high death rate in our town could be summarised in a group of causes which lead to the greater prevalence of ill-health, sickness and disease in the Community than the normal, such as extreme overcrowding, poverty, ignorance, unhygienic social conditions habits and practices, early child bearing, purdah system, bad housing poor stamina, abnormal distribution of sex and age in the Community, prevalence of venereal diseases and addiction to drink and drug habit, high infant mortality due to premature births, unqualified attendance, debility, injudicious or faulty feeding, bad milk and such other causes incidental to a great industrial town. Besides a very large number of children born outside the town are brought in perennially and all the deaths occurring among these infants are recorded here, thus enhancing the death-rate of the town proper to a considerable extent.

(12) Then the last principal factor, though not of least importance, which contributes towards this high general death-rate in this town, is that the bulk of the population live in the kutchra areas of the town comprising the East and the West Suburban Areas.

These areas are, practically speaking, devoid of any proper sanitary equipment of a modern town. They are neither equipped with proper drains, sewers or pipe water supply nor are they provided with any of the amenities of a modern town beyond easy access to roads that lead to ruin viz : the toddy Hlawzaye and the Liquor shops.

In most parts of the town we are obliged to carry on still, the night conservancy work with the primitive mode of privy system. Large part of the population have still to depend on shallow or deep wells for all their water supply. The bulk of the population are still living in houses, huts and hovels, absolutely unfit for human habitation.

A very large number of house sites are perennially under water, slush and muck subject to floods of river tide and household sulliage. The bulk of the population in our town is not only migratory but comprise mainly the labouring community which is notoriously steeped in poverty, ignorance, penury and the drink and drug evil.

Added to all the above, comes the acute shortage of housing accommodation in our town for this large class of the poor. The state of overcrowding is simply appalling and the disastrous effects on the health, welfare and well-being of the masses are simply magnified a hundredfold besides the depressing and health killing influences of the conditions described above, by this extreme over-crowding. Lastly absence of any free medical relief in times of sickness is the last straw that snaps the thin thread of life sustaining them.

With conditions of life so heart-rending and depressing influences narrated above so devitalising, is it any wonder the bulk of the masses should fall ready victims to various ills and sickness human flesh is here-to ?



The Rangoon Corporation has done its best and is doing its utmost at present to remedy all the unpleasant state of affairs brought to its knowledge. It is financial considerations alone that have dwarfed all their efforts in the past. The same considerations will render them impotent against the huge task that faces them at present unless and until the State and the Public both rise to the occasion and fresh resources of revenue are found or other avenues of income are made available.

The general death-rate of our town based on the average of the previous five years is 35.05 per 1,000 and for the year under report it is 31.41 calculated on the Census population of 1921. From the list of some of the principal factors given by me herewith we have seen how very appreciably our general mortality rate is adversely affected by the influence of those prevailing factors.

The large number of deaths taking place in the General Hospital, the Mental Hospital, the Home for the Aged and the Incurables and such other Institutions, really speaking do not all belong to our town. Similarly a very large number of people are coming to Rangoon for business, trade, sickness or treatment of various sorts and all the deaths taking place among these visitors have to be included in our City returns. Thirdly a large number of infants born in the districts and other parts of the Province are brought into Rangoon and the natural high mortality rate in the infants considerably increases the total death returns of our City though they do not belong to our town. Fourthly, we have seen before what a large number of cases of such dangerous diseases as Plague, Cholera and Small-pox are imported into our City from outside while suffering from these diseases. All these deaths tend to swell our town returns. There are many other factors besides but taking these principal ones even, the total of the deaths so recorded will give a formidable figure. If the death returns of the town proper are adjusted in the light of these facts, all the outside deaths eliminated from our records and the death-rate calculated on the present population of the town, which to my belief has over-stepped the figure of 4,80,000—our corrected or true death-rate of the City will be found to be much lower than our most sanguine expectations. Of the total number of deaths registered in the town, as many as 512 deaths were ascertained to have taken place among individuals not normally resident in Rangoon but who had come to Rangoon during their final illness and had died in Rangoon. Of the total number of infant deaths, 524 were ascertained to have been born outside Corporation limits. Of the total number of deaths from infectious diseases, 23 of small Pox, 16 of Plague and 13 of Cholera were amongst cases imported from outside the City. The total number of deaths registered from the Rangoon General Hospital and other Public Institutions during the year was 2,408, a fair portion of which would represent cases coming to our City prior to death from various parts of the Province. If all these deaths be deducted from our City proper as rightly they should be, and the death-rate calculated on the present estimated population which far exceeds 4,80,000, I dare say the corrected general



death-rate of our City proper would reveal a figure any Health Officer in the East would justly be proud of.

I have dealt with at some length some of the principal factors that influence one way or the other the general death-rate of the town from which it will be seen how very fallacious it would be to compare or measure the public health conditions of our town by the general death rate of other Cities not so similarly situated. What tremendous influence proper sanitary equipments alone exert on the general sickness and mortality-rate of the population is most glaringly revealed in the Statement given herewith. Statement of the total number of deaths and the death-rate per 1,000 by Registration Circles of the City for the year 1927.

Registration Circles.	Total deaths.	Death-rate per 1,000.
Newly Added Area ... ..	118	33.31
North Kemmendine ... ..	890	33.96
South Kemmendine ... ..	609	19.08
Lanmadaw ... ..	749	38.91
Taroktan ... ..	611	27.84
North-West Town ... ..	436	20.24
South-West Town ... ..	107	9.10
North-East Town ... ..	424	18.40
South-East Town ... ..	233	14.68
Botataung ... ..	546	28.26
Yegyaw ... ..	630	26.92
Theinbyu ... ..	1,162	31.24
Cantonment ... ..	121	18.70
Dala ... ..	365	23.31
Kanaungto ... ..	366	23.24
Tamwe ... ..	1,076	34.79
Hospitals and Other Public Institutions ...	2,408	...
Adventitious Population ... ..	...	...

From this Statement it will be seen that the highest death-rates last year were recorded from the suburban areas of the town which are not equipped with proper drains, sewers or water supply whereas the fully equipped central areas of the town have recorded the lowest mortality rate. The four pucca areas of the town representing lowest mortality are the North-West Town, South-West Town, North-East Town and the South-East Town Circles comprising a total population of over 72,205 people, giving a death-rate of 20, 9, 18 and 14 respectively per 1,000 in round figures as compared with 18 per 1,000 in the Cantonment area and 31.41 for the wholetown and this too on the under-estimated 3,45,000 Census population of 1921. If corrected on the present estimated population of 4,80,000, I think few cities in the East could boast of such low mortality rates in the fully equipped areas of their towns. This speaks volumes for the Health Administration of this town. The higher death-rate in the kutchha areas of the town will certainly remain high. It will be more or less inevitable unless and until these kutchha areas too are similarly equipped as the central ones with proper drains, sewers and pipe water supply.



## SOME VERY URGENT REQUIREMENTS OF THE CITY.

1. *Water Supply.* The first and foremost need of our rapidly growing town is the provision of wholesome and adequate supply of water for the whole population.

Improvement of public water supply has ever been followed by a marked improvement in the health and sanitation of the town all the World over. Good and abundant water supply is the prime necessity of life and a factor of equal importance in the growth of a town. As I have explained before there has been such a rapid increase in the general population of the town since the last Census in 1921, that the acute shortage of water experienced last hot weather came as a painful surprise to many. The Corporation have done their best to meet this sudden increase in the demand by augmenting the present supply with some more tube wells but nothing short of a scheme like the Yunzalin one will ever meet the existing needs and growing demands of this rapidly expanding City. A scheme of this magnitude, Government alone would be able to finance. This is a proposition that admits of no dispute.

The Corporation have readily granted sanction to an up-to-date Chlorination plant which has been installed to safe-guard the purity of our town water supply.

An analysis of the raw water is carried out on the spot every morning by the Assistant Analyst, Dr. Dass, and the dose of Chlorin is adjusted for the day after ascertaining the Chlorine absorption figure for the sample of water examined that day.

Thus a very vigilant watch is kept on the varying quality of the raw water and an appropriate dose of Chlorine administered to ensure a very high standard of bacteriological purity of the water supplied to the town. During the year under report the maximum amount of Chlorine found necessary was 1.05 parts per million in the months of June and July and the minimum amount given was 0.4 parts per million, in the months of November, December and January. The results aimed at were to ensure the absence of lactose fermenters in 100 c. c. of the chlorinated water. On the whole the standard of bacteriological purity achieved after chlorination was very gratifying and my best thanks are due to Mr. Wilson, the Chief Engineer in charge of the Yegu Pumping Station who has devoted so much of his time and care to the proper working of this apparatus. The Assistant Analyst, Dr. Dass, has carefully carried out the tests for chlorine absorption figure from day to day during the year under report.

Of all the means available for the purification of City Water Supply sterilisation by means of Chlorine Gas is the most satisfactory and the most economical way of rendering water free of all pathogenic or disease micro-organisms.

So far this chlorination of our water supply has given rise to no change in taste or odour at any period of its application.



It is most gratifying record now that since June 1926 our town water supply is regularly chlorinated and the purity of the pipe water is absolutely above suspicion. Nothing further is needed, I believe, in this respect provided the chlorination of the Lake water is judiciously carried out year in and year out, and a second Chloronome installed and kept ready for immediate use in case a larger quantity of Chlorine is required to be put in as would be the case in certain seasons of the year as the capacity of the present Chloronome is limited only. Since Booster pumps have been installed to augment the present supply of water from the Lakes, the necessity for a second Chloronome has become imperative.

II. The second great need of our town is the extension of sewers in the remaining portions of the town.

Large areas of our town are still conserved on the old basket privy system. There are over 18,000 tub latrines in the kutcha areas of the town which should early be replaced with water carriage system, but this extension of sewers is dependent wholly upon the supply of water to the town. Unless and until the Yunzalin or other scheme of supply yielding at least 40 million gallons of water per day to meet the immediate demands of the present generation, comes into existence these large numbers of insanitary tub latrines will mean remain with us. Extension of the sewerage system will mean laying of new sewers and finding of a new outfall as the present sewers are working at their full capacity and a complete set of separate sewers with a separate outfall would have to be worked out.

III. *Housing Accommodation.* The third very great pressing need of our town is the provision of housing accommodation and clearance of the slum areas and houses unfit for human habitation. I have already dealt with the appalling state of overcrowding, the great density of population and the extremely bad housing conditions of the town. Literally the population has outgrown the building operations by hundredfold. The population is going up by leaps and bounds and unless and until a huge effort is made by the Government and the public bodies combined, no other frantic efforts made are likely to touch even the fringe of this problem. Nothing short of construction of 10,000 new tenements would ever relieve this appalling state of congestion due to the acute shortage of houses in the town. The Rangoon Development Trust have done yeomen service to this town no doubt by opening out new areas and developing new sites for the rich and the poor alike but the new areas have been so poorly equipped that they will soon form new slum areas as bad as the rest of the kutcha areas of the town.

The general population of our town is as unique in this respect as in others described by me. The stationary population is hardly one-third of the total. The bulk of the masses forms the labouring Community and it is this class of the Community who are occupying the most central business quarters of the town and obliged to live huddled up in the



densely over-crowded houses close to the centres of their labour, that has given rise to this high rack rent so bitterly complained of by the public.

Any number of vacant sites, however healthy or cheap, are of no avail to this bulk of the Community as it is practically beyond their means to put up any structure of their own. Beyond his toiling body and a small bundle of clothes, if any, the labourer has no other encumbrances to seek shelter for and readily accommodates to any place where he could stretch his tired limbs for a few hours. Thus in rooms hardly big enough to accommodate ten or twelve people, four times that number are found to live. Thus it is that even though high rents are demanded for houses in the industrial and business quarters of the town, the bulk of this Community manages to occupy such places much to the detriment and discomfiture of the non-labouring class. So barring this bulk of the population, a small minority remains from the permanent class of the residents who could afford to have a house of their own and all such small house-owners have their houses in the kutchha area of the town mostly of one storey only, accommodating one or at the most two families.

Thus though the number of sites and number of houses may be comparatively greater than other towns or Cities, the amount of accommodation available is comparatively extremely limited and meagre. All the new sites in the suburbs can be built upon on the one-storey type of building which is not so productive of returns and hence it is that the Capitalist class are so chary of taking up these sites. Even granting the Middle Class people go and live on these new sites in the suburban area there will still remain this acute shortage of housing accommodation in the Central part of the town where most of these labouring hands congregate and wish to live. The huge effort needed in these housing problem in Rangoon I am afraid has not as yet been fully realised. It will come to a head sooner or later. The state of overcrowding has reached its very limits and no more could now be accommodated without serious menace to the health of the town. The root cause of this evil is the large population of these labourers in our town. The housing condition of the Indian labour population as I have said before is simply calamitous. All the humane activities of the Rangoon Development Trust would be of little avail unless and until something has been done for the housing of this class of the Community. That something should take the shape of three or four storied reinforced concrete buildings or chawls on the lines of the Improvement Trust chawls built in Bombay in the fully equipped area of the town. Such chawls should certainly be built in the pucca and sewerred areas of the town so as to keep a high standard of sanitation. The number of the population to be so accommodated will not be anything short of 1,00,000 and the cost anything below a crore of rupees. This is only a rough estimate but it gives one a fair idea of the enormous expenditure involved in this problem. It is beyond the means of the Corporation or any private body of firm. Unless and until the Local Government comes to the help of this Capital City of the Province, raises a loan of a crore of rupees for providing about 5,000 tenements rooms within fully equipped areas of the town, this problem of overcrowding is not likely to be solved. It is in the interests of the Government



itself that such a step should be taken by them, for is not the future progress and development of the whole Province dependent on this bulk of the labour population coming to Rangoon from various parts of India? What Indian labourers have contributed towards the present state of development and prosperity of this Province needs to be realised to its fullest extent. The trade, railways, canals, agriculture, all owe a heavy debt of gratitude to these Indian labourers and to my mind the future prosperity of this Province is inseparably bound up with the amount of Indian labour that it can command.

There has been a general cry in the public why not compel all the big employers of labour to provide housing accommodation to their own employees, including Government, Port Commissioners, Railways and the Corporation. If such an obligation be laid on various bodies by an Act of Legislature, it will certainly give relief to an appreciable extent but such a measure will still leave a very large mass of the labourers outside the pale of its operation who would not come under the category laid down by law. I would therefore suggest here that the Government be urged to float a loan of a crore of rupees to begin with, to provide sanitary dwellings chawls or buildings to accommodate about 1,00,000 people of the labour Community.

For the newly opened out suburban areas special efforts should be made to equip at an early date with all the amenities of a residential area viz: (1) pucca roads, (2) proper drains and sewers, (3) adequate and wholesome pipe-water supply, (4) easy and cheap communications with, the business quarters of the town, by rail, tram or bus, (5) safety of their life and prosperity by adequate Police protection, (6) bazaars close to their quarters and (7) lastly but not of least importance, easy facilities for medical aid and relief in times of sickness or accident. These are the things that count most with the general public before they are induced to leave the centre of the town and enjoy the hundred and one other amenities of open air and life of a suburban area.

#### IV. Medical Relief.

The fourth very urgent need of our town is the Medical Relief for the great bulk of the very poor in our town. The figures given before of the large number of people dying in this City without any medical relief at the time of their last illness before death are too glaring to need any further comment. Happily the Corporation of Rangoon have once again come to the rescue of this suffering class. The Health Department have since 1923 taken up this question of out-door relief of the poor and by now four Dispensaries have been established in various parts of the town viz: Dalla, Kanaungto, Theinbyu and Forest Road where free medical relief to the most indigent needy and the poor to the extent of about 400 patients per day is now being administered. A small part of the great need is now being supplied by the Sri Ram Krishna Hospital in the Botataung quarter of the town but much remains as yet to be done. This has hardly touched the fringe of the subject even.



Beyond the Rangoon General Hospital with an accommodation of 515 beds and the Sri Ram Krishna Hospital containing about 100 beds, there is no other place for the large number of the acutely ill to go to for any indoor relief.

The Hospital accommodation provided for the needs of this City with over 4,00,000 population comprising mostly of the poor labouring Class is to say the least grossly inadequate.

Another General Hospital of at least 500 beds is very urgently needed for the needs of our town and half a dozen more out-door dispensaries would hardly be enough to administer to the wants of the suffering poor in this rapidly growing town.

All the countries in the West have greatly ameliorated the conditions of the poor and general sickness and mortality rates of their towns have been tremendously improved by this one measure alone of the legislature viz: the Sickness Insurances Act enabling every labourer in their land to command first rate medical relief during his sickness of every grade. I hope no efforts would be spared to bring home in a most vivid manner, the deplorable state of the great mass of the suffering humanity in this town consequent on the absence of proper medical relief. The action of the Local Government, or properly speaking, this lack of action of the Local Government to provide proper and adequate medical relief in proportion to the growing and urgent needs of this town, to my mind demands more than a passing notice.

### **Tuberculosis.**

Turning now to the prevalence of Tuberculosis in the town, the same woeful tale is in evidence. Over 40 years have passed since the out-door Tuberculosis Clinic was first started in England. Since then England has over 446 such Clinics in various parts of that country.

We out here in Burma cannot boast of a single such Institute in the whole of Province, leave aside Rangoon.

I have already dealt with this subject in my Annual Report for the year 1925 and will only enumerate here the kind of relief that is wanted for this disease.

- (1) An outdoor Tuberculosis Clinic attached to the Rangoon General Hospital preferably so as to add all the resources of this well equipped hospital towards the full realisation of the service of the Outdoor Clinic.
- (2) A certain number of beds should be set apart for the hospital treatment of moderately advanced cases of this disease.
- (3) An isolation hospital for the accommodation of cases in the advanced and incurable stages of the disease. The Bishop



Bigandet Home for the Incurables will, I believe, take some of these cases, if their funds permit.

- (4) One or more Sanatoriums for the treatment of early cases of Phthisis.

The Dufferin Hospital and the Society for the Promotion of Infant Welfare have been doing excellent service towards the amelioration of the sufferings of the poor Mothers at the time of confinement but much more yet remains to be done as fully narrated in one of my Annual Reports.

If these four great factors principally involved in the unusual prevalence of sickness, disease and the insanitary state in our town so bitterly complained of, be removed or remedied, I dare say the City of Rangoon will soon be rendered one of the healthiest and cleanest Cities in the World.

Before I conclude, I would like to place on record my great appreciation of the untiring zeal and work of the whole staff—Indoor, Outdoor and Hospital—who have helped to bring the sanitary administration of the City to a higher level of efficiency amidst such trying times of epidemics and adverse surroundings they are inevitably subjected to in their unpleasant duties for the health, care and welfare of the Public.

K. R. DALAL, L.M. & S., D.T.M., D.P.H.

*Health Officer,*

*Corporation of Rangoon.*

Rangoon:

The 15th, May 1928.



## APPENDIX. A.

**DYSENTERY—ITS CAUSE, SPREAD AND PREVENTION.**

There are two main types of dysentery. One is caused by animal parasites and known as Amoebic Dysentery and the other caused by bacteria and known as Bacillary Dysentery.

Most cases in the present epidemic were of the bacillary type. This type of dysentery, which is of world wide distribution, is more or less endemic in Rangoon and, given congenial factors such as abnormal atmospheric heat, humidity, damp and moist air, overcrowding, insanitation, infection, etc., it assumes epidemic proportions. There are several varieties of bacteria causing this disease and these bacteria are disseminated largely by means of the faecal matter of dysentery "carriers" as well as by that of persons suffering from dysentery. These are the two chief sources of the dysentery germs and they form so to say a reservoir of these bacteria from which they are conveyed to articles of food and drink by the agency of flies, dust, dirt, water infected with discharges from a patient and by direct contact with the infected materials passed by a patient or a "dysentery carrier". Thus infection usually takes place by the consumption of articles of food and drink that have been directly or indirectly contaminated with infected material. The germs may pass directly into food through careless handling by servants or the coming in contact by a sufferer from the disease with any vessel, utensil or any article of food and drink without a preliminary thorough washing of hands.

Bacillary dysentery is found all over the world, and in the Tropics it is usually widely prevalent just before and after the break of the Monsoon. It has a marked seasonal prevalence and in certain years its virulence increases to such an extent as to lead to a wide spread epidemic. Climatic influence has not a little to do with this and so has the prevalence of flies during any particular season. There are other contributory factors. The first break of the Monsoon usually washes off large quantities of dead animal and vegetable matter into all the sources of water supply. Water at this season is fully charged with animal and vegetable organic matter in all stages of decomposition and is therefore generally contaminated. Similarly at the end of the dry season there is a general scarcity of water in wells, tanks and ponds and the bottom water scraped off from there and water drawn from very shallow pools are similarly highly polluted. Thus all diseases commonly known as bowel complaints usually start at the end of the dry weather and as explained above, the subsequent advent of the wet weather accentuates all the factors making for a rapid spread of this class of diseases.

There is no doubt that the prevalence of dysentery is more severe where sanitation is defective. As explained in my last month's report, the existence of a very large number of tub latrines in Rangoon and the unusual prevalence of flies this year owing to the extensive areas of breeding places beyond the pale of ordinary conservancy work of the town, have had their share in the



present epidemic of dysentery but the fact must not be lost sight of that flies or latrine tubs or rubbish disposal grounds are not the chief or the only cause of the spread of this disease. The dysenteric bacilli are distributed mainly by the excreta of persons suffering from the disease. The main source of dissemination is by contact with a suffering case or from what are called "dysentery carriers" healthy or convalescent. There are many number of persons normally healthy in appearance, and who have had this disease at some time of their life previously who harbour these germs in their body and pass in their excreta everyday dysentery bacilli in large numbers. In my investigations so far I have been convinced of the fact that the spread of this disease is in a large majority of the cases due to contact infection from the first suffering case of dysentery. There is usually a history of first one case in the house then the disease spreads to other members of the family after a shorter or longer interval. When others have been infected soon after the first case it has generally been due to direct contact infection, and when cases have occurred after a fairly long interval they have been mostly due to infection from a person recovered from dysentery who has become a "carrier". Thus it will be seen that direct contact infection and infection from a "carrier" are the main causes of the spread of this disease. Infection through flies, dust and filth has its share in the dissemination of this disease no doubt but in my view greater stress has been laid on these factors than is warranted by the facts so far observed. There is no doubt that this and other diseases are spread through the agency of flies but if undue importance is given to this fact the general public will be misled into losing sight of the most important cause of the spread of this highly dangerous disease viz: its dissemination by direct contact and by the "carrier". This problem of the "carrier" is of the greatest importance in the aetiology of this and other diseases of the intestinal tract such as Cholera, Diarrhoea and Enteric.

The dysenteric bacilli are carried from the faecal matter to the mouth by the contamination of food and drink or utensils for the preparation or serving of food and drink when handled with soiled or unwashed hands.

Besides the actual causative agent as noted above there are certain predisposing causes also which render persons easily vulnerable to the attack of this disease.

Chill caused by exposure, sleeping in damp places, wet clothing and wet feet are the principal predisposing causes of this disease during its seasonal prevalence. Infants, young children and old persons are most susceptible to chill and the heaviest incidence of the disease falls on them. Of the total number of 420 deaths from diarrhoea and dysentery during July 1926 as many as 170 or over 40 per cent had been among children under 5 years of age.

Another great factor is some error in diet such as the consumption of raw or over-ripe fruit, or indigestible food such as mangoes, doorians, jack fruit and all varieties of shell fish such as prawns, shrimps, oysters or the eating of raw vegetables, letuce, radish, cucumber, melons, etc., which are grown on manured grounds and not properly washed.



Dysentery bacilli are capable of living in the alimentary canal of human being without causing any signs or symptoms of illness until the general health or vitality of the person is affected adversely by chill or some other predisposing cause as noted above when these germs lying dormant so long flare up and produce an acute attack. Thus it is that personal prophylaxis or care to avoid infection is of the utmost importance in the prevention of this disease. Rubbish tips, insanitary conditions, latrine tubs, flies, filth and duts, all have had their share no doubt in causing the prevailing epidemic of dysentery but unless and until all this conglomerate of causes comes into operation, aided by the unusual climatic conditions prevailing at the time, no one single factor has any marked effect on the prevalence or spread of this disease. There has been so much loose talk in public and press alike as regards the cause of this disease that the most important factor in the spread of this disease viz: the "dysentery carrier" and the 'contact' of persons suffering from it, has been almost lost sight of and the public neglect the most essential precautions against the spread of this disease.

The persons to be suspected are those who have had dysentery themselves or have been nursing or attending on others suffering from dysentery and persons occupied in cooking or handling articles of food and drink.

Since the 12th June, the Hlawga lake water has been chlorinated before being supplied to the town and the last report of a sample of tap water examined at the Pasteur Institute on the 12th. July 1926 shows that this water was of exceptional purity. The total number of colonies found in untreated Hlawga water usually varies from 400 to 800 colonies per c. c. on an average. The number of colonies found in the tap water after we had started chlorination was 8 only. The present town supply of water may therefore be considered as absolutely safe on bacteriological grounds. Such a standard of purity as achieved after chlorination is hardly to be found in nature except in waters derived from deep tube wells.

Unfortunately the weather conditions this year have been such as to cause rapid chills and the same climatic conditions have given rise to a more than usually prolific brood of flies and both have contributed towards the prevalence of dysentery but, given all the other concomitant factors as explained above, chill is, in my opinion, the most predominant predisposing cause of this disease, as the number of cases of dysentery has continued to increase during July though a marked and appreciable decrease in the number of flies has been noticed ever since the beginning of the month. There is thus strong evidence for the view that personal contact and the "carrier" factor have a predominant influence in the spread of this disease. This disease does not originate de-novo nor does it arise from flies, filth or rubbish per se. Dysentery is always due to the transfer of human excreta of a suffering case or a "carrier" to the food or drink of another person and it is most prevalent where the disposition of night-soil is most primitive. Hands, clothing, bedding, food and drink may carry the infection. From the dirty hands of the milker, the cook or the waiter these germs may find their way into the food. The problem of prevention therefore resolves itself into public and personal prophylaxis.



### **Public Prophylaxis :—**

Rapid removal of all town rubbish by means of motor transport, final disposal of the same by means of fire in a modern Destructor or Incinerator, the substitution for the primitive method of tub latrines which is still existent in the greater portion of the town, of a water-carriage sewerage system, and the abundant and wholesome supply of pipe water to the whole town, constitute some of the chief preventive measures to be taken by the Corporation under this heading. I need not dilate upon this subject any more as it has been repeatedly dealt with before by me. It will be long before this ideal is achieved but in the meanwhile everything possible is being done by my Department to mitigate the evil under the existing conditions of the town. Special gangs have been formed for all the unsewered areas of the town to carry out disinfection of the latrines, latrine tub contents, and infected premises, with a view to prevent any further spread of this disease through the agency of flies and dust contaminated with infected excreta. All the wells, tanks and shallow pits from where water is likely to be used by the people in the suburban areas are being chlorinated and special instructions have been issued to all concerned for the seizure and destruction of milk, fruit, fish and other articles of food and drink found unwholesome.

The number of latrines disinfected during the month under report was 11,364 and the number of wells, tanks etc., chlorinated—26.

### **Personal Prophylaxis :**

Every case of diarrhoea or dysentery should be immediately notified to the Health Authorities. The patient should be properly isolated where possible at home or sent to the Hospital and detained there till he is declared free from danger to others, as a majority of convalescent cases act as diseases carriers. Similarly healthy and active "carriers should be detected, isolated, properly treated and detained in hospitals till declared free from infection.

These are ideal measures of prevention indeed but hardly practicable in any town of this magnitude.

Many of the cases in the town have been observed to have been infected in the house from a previous patient by means of contact infection. This is where the public would do well to remember the great danger of the spread of infection through infected hands, person, utensils, clothing and food. Chill through exposure, fatigue, inclement weather, wet fket or wet clothing is another great exciting cause in the attack of this disease. Next



in importance comes the consumption of not easily digestible stuff as raw or over-ripe fruit, all varieties of shell fish, cucumber, melons, jack fruit, lettuce, etc., and other articles of food and drink exposed to flies and dust. To sum up briefly the whole problem of dysentery could be epitomised in the following words:—

“Carriers, contacts, chill, food, filth, fingers and flies”, and that of prevention as:

“Never to eat any article of food or drink that has not been washed, boiled or cooked and covered”.

RANGOON :  
10th. August 1926.

K. R. DALAL, D.P.H.,  
Health Officer,  
Corporation of Rangoon.



## APPENDIX. B.

**The Fly nuisance and its menace to Health.**

With the advent of monsoon generally a steady rise in the number of cases of diarrhoea, dysentery and other bowel complaints has been ever noted to take place in every part of the Tropical and Sub-tropical regions.

This marked seasonal prevalence of these diseases has been a constant feature in our town also. Chill caused by wet feet or wet clothing, the fly season and the consumption of raw or over-ripe fruit such as mangoes, doorians, jack-fruit, pine-apple, cucumber, etc. which abound in this season, form a most potent combination of causes leading to this seasonal prevalence of bowel complaints. Infants and young children as a rule are most susceptible to cold and chill and the heaviest incidence of the disease falls on them. So far the majority of cases of dysentery and acute diarrhoea appear to be of bacillary origin and the wide spread prevalence of this disease is to a small extent due to the dissemination of the disease germs through the agency of flies coming from night soil tubs and human excreta, sitting on articles of food and drink exposed and uncovered.

Flies have particular fascination for feeding on human excreta and other filth of every description alternately with a feed in such articles of human consumption as milk, jam, sweets, fruit, etc. lying exposed or things cooked in the kitchen. Near the kitchen and tub latrines they are most conspicuous. The prevalence of flies noted this year appear to be unusually bad. Some summers are warmer than usual, some moister than others and on these two factors along with the number of breeding places present in any part of the country depend the numerical strength of the flies prevalent in that year. Unfortunately the climatic conditions ever since the first break of monsoon this year have been so congenial to insect life as to lead to a rapid and prolific breeding of flies all over the town.

The chief breeding places of flies in our town are the following:—

- (1) accumulation of kitchen refuse in household bins, baskets and other receptacles ;
- (2) all the household refuse, rubbish and garbage thrown into the Back Drainage spaces ;
- (3) all the refuse from public gharry stables, private pony stalls, cow sheds and cattle sheds scattered all over the town;
- (4) All the night soil tubs in the unsewered area of the town;
- (5) The rubbish disposal tips at Mill Road, Ahlone Road and Kemmendine;
- (6) The accumulations of paddy husks, bran and milling dust in every rice mill on both sides of the river, form an excellent fermenting mass for a rapid and prolific breeding of flies ;



- (7) The Cattle Market, the Cattle Slaughter House, Bullock Depots and the pig styas are some of the places where flies breed in abundance;
- (8) Peelings of fruit, vegetables, kitchen waste and every accumulation of rubbish which is in a rotting condition and fermentation has set in form excellent nidus for the growth of flies.

Flies as a rule lay eggs where ever there is heat moisture and fermenting stuff. A single fly lays about 120 to 150 eggs on an average and four such deposits may be made in its life cycle. Each egg hatches out into a larvae within eight hours of its first laying and the average time taken from the eggs to the adult stage is from 10 to 14 days in the Tropics. This period of hatching is considerably shortened by high summer temperature and moist climate as noticed this year. Hypothetically if we assume all the eggs laid to survive and grow up into adult flies and counting on an average 10 days to a generation, from a single fly, the total number of the adult flies that would ultimately breed in about seven generations would be about 5,598,720,000,000 of which half the number would be females. These figures have been given here just to give one an idea of the enormity of the problem involved in the extermination of this pest from any country. Countries in the west with cold and other climatic condition so adverse and hostile to the growth of these insects have not succeeded as yet in the total extermination of flies and even now thousands of infants and children are every year of summer diarrhoea caused by the spread of this disease germs through the agency of flies.

Every household kitchen refuse kept in dust bins or thrown about breeds flies. Every gharry stable and pony stall public or private breed flies. Every accumulation of cow dung, cattle dung or manure kept for gardening purposes forms potential breeding places for flies. Every latrine tub in the town breeds flies. In the experiments carried out in India, 500 flies were reared from one dropping of human excreta and there are over 16,000 latrines in our town. Every rice mill with the accumulation of paddy husk forming the fermenting stuff afford excellent grounds for breeding flies. Lastly though of not least importance is the large area of the rubbish grounds for the disposal of our town rubbish.

It is little wonder flies swarm in such numbers this year during the season of its greatest prevalence with such climatic conditions to help, and the innumerable breeding places every where as briefly enumerated above.

The wonder is this plague of flies is not worse under the existing conditions.

In my search for all the potential breeding places of flies, I have come across one which to my knowledge has not been so far recorded in the past. In every rice mill there are extensive areas of land where paddy husks have been found strewn about, often dumped to fill in hollow spaces and to give a good pathway to loading coolies. All such paddy husks got mixed with bran and milling dust coming from the mills and form a mass of fermenting stuff during the rainy season and wherever heat and moisture are present.



This fermenting mass forms an excellent breeding place of flies. Fly larvae were found in all their stages of larval life swarming in such masses. The extent of this breeding area had better be imagined from the very large number of the rice mills that exist in our town on both sides of the river.

The problem of prevention obviously resolves itself into the detection and removal of all such breeding places. Rapid removal of all the town rubbish by means of motor transport, disposal of the same by means of fire in a modern Incinerator or Destructor and the conversion of the privy-system of tub latrines into water closets by extension of the sewerage system would be the only means of ridding out town to any extent of this perennial pest of flies. Motor transport has been introduced and is on a fairway to completion. Orders have been placed for the full complement for the fleet of motor lorries required for the whole of the town. Specifications and quotations are being obtained from England for a modern Destructor suiting the requirements of our town and no sooner received proposals will be put up before the Committee for the immediate sanction of one or two units to begin with. The town has long outgrown the rubbish disposal grounds which were considered far enough from the residential quarters when first located and destruction of all the town rubbish by fire has now become a dire necessity.

In the meanwhile every action is being taken by my department to prevent the spread of these diseases by the agency of flies. Stable manure, cattle dung and human excreta are the most prolific sources of breeding of flies. Flies bred in such places are not only more numerous but more dangerous from health point of view as coming from this source they disseminate disease germs. Big iron containers are being constructed and placed near public gharry stables, cattle sheds and markets so as to collect all the stable litter and market refuse straight into such containers which are then bodily hauled up on our motor lorries and removed to rubbish tip without any further handling.

As for the night soil tubs, special gangs have been formed for all the unsewered areas of the town to carry out disinfection of all the tub latrines of reported cases by means of a spray and to fill the latrine tubs with the lotion so as to prevent any further spread from the infected material. Besides latrine tubs of all surrounding houses are similarly dealt with. We had achieved some very good results last year by systematic disinfection in all such cases reported for diarrhoea and dysentery and I have extended this method this year on a more elaborate basis. Besides instructions have been issued to all the Assistant Health Officers and Food and Sanitary Inspectors to devote particular attention to Milk, fruit, fish and other articles of food and drink sold in the bazaar so as to seize and destroy any found rotten or unwholesome.

### **Precautions to be taken by the Public.**

Here it is that the public can co-operate with the Health Authorities by keeping their homes and surroundings clean and notifying every case of diarrhoea or dysentery that occurs in their houses. If every case of diarrhoea



or dysentery is reported to the Health Officer, immediate steps could be taken to disinfect the latrine tubs from day to day till the case recovers so as to prevent spread of the disease germs from the infected excreta. Similarly every case should be taken by the inmates of the house where a case suffering from dysentery is being treated to prevent spread of the disease to others in the house by means of infected hands, clothings or utensils as the disease germs are carried very easily from this source to articles of food and drink.

A large number of the reported cases have been contacts of suffering cases. Over-ripe fruit, salad, lettuce and other vegetables which are eaten raw unless properly washed, should be avoided during this season. Infants and children should be protected from chill and cold by keeping them well clad, avoiding wet clothes and wet feet. Flies avoid houses that are kept scrupulously clean and free from any remnants of food or drink. Cooked articles of food and drink hawked about and sold in shops exposed to flies should be avoided.

Lastly no article of food or drink should ever be left exposed or uncovered for a moment, during this fly season more especially and no article of food or drink should be consumed unless it has been washed, boiled or cooked.

K. R. DALAL, D.P.H.,

Health Officer.

Corporation of Rangoon.

RANGOON.

13th July 1926.

Precautions to be taken by the Public.

Here it is that the public can co-operate with the Health Authorities by keeping their homes and surroundings clean and notifying every case of diarrhoea or dysentery that occurs in their houses. If every case of diarrhoea



# ANNUAL REPORT

## ON THE WORKING OF THE

## CONTAGIOUS DISEASES HOSPITAL

Municipal Corporation of Rangoon.

For the Year ending the 31st December 1927.

This report has been drawn up in accordance with the instructions contained in the Circular Memorandum No. 20009-R-14, dated Rangoon, the 14th December 1927, 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 Building:**—These consist of three main group of buildings for the accommodation of patients; the first consists of nine large wards holding 238 beds and is reserved for the male patients of Burmese and Indian nationalities, the second of three small wards containing 24 beds in all for the female patients of the same nationalities and the third of the three wards with 18 beds for Europeans and Anglo-Indian patients of both sexes.

**Structure:**—The first two groups of buildings have a raised pucca flooring with bamboo mat walling and dhunnee leaf roofing and the third has a pucca flooring with asbestos tiles 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 Surgeon's 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 those 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-room (7) Dhoby wash-house. All these buildings are located in different parts of the compound according to their needs and convenience.

One row of servants' quarters consisting of fifteen rooms raised about 5 feet off the ground was erected in place of the old one which was dilapidated and had to be dismantled.



All the above buildings owing to the nature of their construction require constant repairs and this has been done as far as possible.

Electricity is supplied throughout the hospital as noted in previous reports, the construction of a new Contagious Diseases Hospital is under the consideration of the Local Government but it is not known when the work will be taken in hand.

**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. S. Rodriguez was in charge of the hospital till the 17th August 1927 when he proceeded on eight months leave. As no substitute could be taken for him for some months Dr. Homasjee the then officiating Health Officer was in charge of the hospital from the 18th August 1927, till I took over charge of the hospital on the 21st October 1927. 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.
6 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 at duty both day and night, the nurses work in shifts of three for day and three for night duty in rotation. Similarly the wardboys, 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.

The following temporary staff was entertained during the year:—

February	...	...	3	ward boys.
March	...	...	4	wards boys.
"	...	...	2	sweepers.
"	...	...	1	dhoby.
April	...	...	4	ward boys.
"	...	...	2	sweepers.
"	...	...	2	dhobies.
May	...	...	4	ward boys.
"	...	...	1	sweeper.
"	...	...	1	dhoby.
June	...	...	1	dhoby.
December	...	...	4	ward boys.



**V. Hospital Management and Finance:**—Since the transfer of the hospital to the control of the Corporation all the charges necessary for the proper upkeep 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.
1,220	247	1,467

**VI. Hospital Patients.—General Statistics:—**

TABLE NO. I.

Diseases.	Patients remaining in Hospital, on the 31st December 1926.	Number of patients admitted during the year 1927.	Total number treated.	Discharged cured.	Died.	Case mortality rate per cent.	Patients remaining in hospital on 31st December 1926.
Plague	...	43	43	8	34	79.07	1
Cholera	2	60	62	33	28	45.16	1
Small-pox	...	649	649	478	114	17.56	57
Chicken-pox	3	218	221	210	...	...	11
Measles	...	76	76	67	...	...	9
Mumps	1	114	115	113	...	...	2
Diphtheria	...	11	11	6	3	27.27	2
Erysipelas	...	13	13	10	3	23.08	...
Influenza	1	7	8	5	3	37.50	...
Cerebro-Spinal Meningitis	...	12	12	7	5	41.67	...
Diarrhoea	...	32	32	28	4	12.50	...
Adenitis	...	15	15	15	...	...	...
All other diseases	2	17	219	180	37	16.89	2
GRAND TOTAL	9	1,467	1,476	1,160	231	15.65	85

(a)

TABLE NO. II

1926.			1927.		
Male.	Female.	Total.	Male.	Female.	Total.
743	133	880	1,293	183	1,476



Table No. III.

Voluntary Admission.		Those sent by the Health Department, Port Trust Authorities, Rangoon General Hospital, Sri Ram Krishna Hospital, etc.	
1926.	1927.	1926.	1927.
208	430	672	1,046

(b) The total number of cases treated during the year under report was 1,476 of which 1,293 were males and 183 females as compared with the corresponding figures of 880,747 and 133 of the previous year.

The total number of voluntary admissions was 430 as compared with 208 of the previous year.

The following table gives the percentage of voluntary admissions to the total number admitted during the year as compared with that of previous year.

Table No. IV.

1926.	1927.
23.64	29.13

The daily average attendance as compared with that of the previous year was as follows:—

Table No. V.

1926.	1927.
30	70



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

Table No. VI.

1926.	1927.
109	201

The respective dates on which this happened were the 12th March 1926 and the 11th April 1927.

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

Table No. VII.

1926.		1927.	
Total No. of deaths.	Death-rate per cent.	Total No. of deaths.	Death-rate per cent.
189	21.48	231	15.65

The total number of deaths during the year under report was 231 giving a death-rate of 15.65 as compared with 189 and 21.48 of the previous year.

The decrease in the general death-rate can only be accounted for by the large numbers of admissions for mumps as 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 of different races treated in the hospital.

Table No. VIII.

Year.	Europeans and Anglo-Indians.	Burmese.	Mohamedans.	Hindus.	Other Classes.
1926	8.18	5.80	17.73	65.79	2.56
1927	5.42	7.18	18.16	67.14	2.10

The largest number of admissions have been from the Hindus and Mohamedans. Of the total number of cases treated there were 80 Europeans 106 Burmese 268 Mohamedans 991 Hindus and 31 of other classes, giving a percentage proportion as shown in Table No. VIII.

#### VII. Prevailing Diseases:—

The following table gives the total number of infectious diseases treated during the year under report as compared with that of previous year.



TABLE No. IX.

Diseases.			1926.	1927.
Plague	...	...	75	43
Cholera	...	...	127	62
Small-pox	...	...	121	649
Chicken-pox	...	...	202	221
Measles	...	...	59	76
Mumps	...	...	26	115
Diphtheria	...	...	1	11
Erysipelas	...	...	10	13
Cerebro-Spinal Meningitis	...	...	7	12
Influenza	...	...	27	8

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.	1926.			1927.		
	Total Number treated.	Number of deaths.	Case mortality per cent.	Total Number treated.	Number of deaths.	Case mortality per cent.
Plague ...	75	54	72.00	43	34	79.07
Cholera ...	127	57	44.88	62	28	45.16
Small-pox ...	121	19	15.70	649	114	17.56
Chicken-pox	202	...	...	221	...	...
Measles ...	59	2	3.39	76	...	...
Mumps ...	26	...	...	115	...	...
Diphtheria ...	1	...	...	11	3	27.27
Erysipelas ...	10	3	30.00	13	3	23.08
Cerebro, Spinal Meningitis ...	7	5	71.43	12	5	41.67
Influenza ...	27	14	51.85	8	3	37.50
Diarrhoea ...	38	2	5.26	32	4	12.50
Adenitis ...	12	...	...	15	...	...
All other Diseases	175	33	18.86	219	37	16.89



The 37 fatal cases recorded under all other diseases during the year were due to the following causes.—

Dysentery 6, Gastro-Enteritis 13, Malaria 1, Pneumonia 9, Pulmonary Tuberculosis 1, General Debility 1, Beri-beri 1, Pyaemia 1, Tetanus 1, and Pyrexia of unknown origin 3.

### PLAGUE.

43 cases were treated during the year under report of which 41 were males and 2 females. There were 8 recoveries and 34 deaths giving a case mortality 79·07 per cent as compared with 72·00 of the previous year. This year the number of cases was the lowest on record and this probably accounts for the higher mortality rate noted this year as compared with that of the previous year, out of the 41 males 33 died and of the two females one.

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.	Unknown.
43	1	17	16	3	4	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.
34	1	9	3	13

Out of the total of 34 deaths 13 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 admission, 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 ...	40	8	31	77.50
Pneumonic ...	...	...	...	...
Septicaemia ...	3	...	3	100
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 77.50 per cent.

TABLE No. XIV.

Month.	No. admitted.	No. cured.	No. died.	Case mortality.
Remaining from previous year. ...	...	...	...	...
January ...	3	1	2	66.66
February ...	3	...	3	100.00
March ...	3	1	2	66.00
April ...	2	...	2	100.00
May ...	4	1	3	75.00
June ...	7	3	4	57.14
July ...	4	1	3	75.00
August ...	3	1	2	66.66
September ...	3	...	3	100.00
October ...	4	...	4	100.00
November ...	2	...	2	100.00
December ...	5	...	4	80.00
Grand Total ...	43	8	34	79.07

### CHOLERA.

62 cases of Cholera were treated during the year out of which 33 recovered and 28 died giving a case mortality of 45.16 per cent. Of the 28 fatal cases 8 died within 6 hours of admission, 7 within twelve hours, 5 within twenty-four hours giving a total of 20 cases who died within twenty four hours of their admission into the hospital. Of the total of 62 cases treated in the hospital 41 were given intravenous saline injections on one or more occasions as required and of these 15 recovered and 26 died. Of the remaining 21 cases that were not given saline injections owing to their pulse and blood pressure being good 18 recovered, 2 died of complications and one was remaining at the end of the year and he has since been discharged cured.



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.

Month.	Nc. of cases admitted	No. cured.	No. of deaths.	Case mortality rate.	Remaining.
Remaining in January from previous year.	2	...	2	100	
February	22	14	8	36.36	
March	10	6	4	40.00	
April	8	3	5	62.50	
May	6	5	1	16.66	
June	2	1	1	50.00	
July	...	...	...	...	
August	...	...	...	...	
September	2	...	2	100.00	
October	3	1	2	66.66	
November	3	2	1	33.33	
December	4	1	2	50.00	1
Grand Total ...	62	33	28	45.16.	

## Small-Pox.

649 cases of Small-pox were treated during the year of which 587 were males and 62 females. Out of 649 cases treated 478 recovered, 114 died giving a case mortality of 17.59 (fifty seven cases remaining at the end of the year in the hospital.)

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.	6	3	25	12	101	5	454	41	1	1
Deaths.	2	2	6	5	13	3	76	6	...	1



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

**Table No. XVII.**

Month.	1926.	1927.
Remaining from previous year ...	2	—
January	26	13
February	47	92
March	20	146
April	14	162
May	5	56
June	1	31
July	3	38
August	Nil	14
September	1	8
October	Nil	16
November	Nil	7
December	2	66
Grand total ...	121	649

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

(a) Total number of protected cases 424.

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.
424	Nil	Nil	Nil	424

(b) The total number of unprotected cases was 225.

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

**Table No. XIX.**

Protected.		Unprotected.	
Adults.	Children.	Adults.	Children.
416	8	201	24

(d) Statement of attacks amongst the unprotected:—



Table No. XX.

Variety.	1926.			1927.		
	No. of cases.	No. of deaths.	Case mortality rate.	No. of cases.	No. of deaths.	Case mortality rate.
Modified.	...	...	...	...	...	...
Discrete.	1	...	...	16	...	...
Confluent.	31	10	32.26	206	76	36.8
Haemorrhagic.	1	1	100.00	3	3	100.0
Total.	33	11	33.33	225	79	35.1

(c) Statement of attacks amongst the protected:—

Table XXI.

Variety.	1926.			1927.		
	No. of cases.	No. of deaths.	Case mortality rate.	No. of cases.	No. of deaths.	Case mortality rate.
Modified.	2	...	...	83	...	...
Discrete.	45	...	...	136	...	...
Confluent.	41	8	19.51	204	34	16.6
Haemorrhagic.	...	...	...	1	1	100.0
Total.	88	8	9.09	424	35	8

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.
649	478	114	17.56	57



From the various tables given above it will be seen that out of a total of 649 cases of Small-pox treated in the hospital during the year 424 were found to be protected by vaccination and 225 unprotected. Of the 424 protected which included 8 children, 83 had an attack of the modified type of Small-pox, 136 Discrete, 204 Confluent and 1 Haemorrhagic. 34 of the Confluent type and 1 of the Haemorrhagic proved fatal. Of the 8 children in the protected group who had been vaccinated in infancy and who developed Small-pox 3 had Discrete form of the attack and 5 Confluent. Of the 5 Confluent cases 2 proved fatal. The ages of these protected children were as follows:—

Age.	0-12 months.	1-5 years.	5-10 years.	
No. of children.	3	3	2	

Of the 225 unprotected cases which included 24 children 16 had an attack of the Discrete type, 206 Confluent and 3 Haemorrhagic.

76 of the Confluent and all the 3 of the Haemorrhagic variety proved fatal.

Out of the 24 unprotected children, 4 had Discrete and 20 had the Confluent type of diseases. Of the latter variety 9 died.

The ages of the unprotected children were as follows:—

Age.	0-12 months.	1-5 years.	5-10 years.	Total.
No. children.	7	11	6	24

Of the 35 fatal cases amongst the protected group the following vaccination conditions were noted:—

Character of vaccination.	One mark.	Two marks.	Three marks.	More than three marks.
Faint.	4	10	2	1
Moderate.	9	6	3	...
Prominent.	...	...	...	...

The age group of these 35 fatal cases were as follows:—

1-5 years.	4-19 years.	10-20 years.	20-30 years.	30-40 years.	Above 40 years.	Total.
2	...	9	19	...	5	35

Among the 424 protected cases 8 were re-vaccinated. Of these 8 re-vaccinated three had modified, two Discrete and three Confluent types of diseases and of all these eight 6 recovered and the other two were remaining at the end of the year.

The following table gives the total of cases, varieties, and case mortality rate among the protected and the unprotected.



TABLE No. XXIII.

Variety.	Protected.			Unprotected.		
	Admitted.	Died.	Case mortality rate.	Admitted	Died	Case mortality rate.
Modified	83	...	...	...	...	...
Discrete	136	...	...	16	...	...
Confluent	204	34	16.66	206	76	36.89
Haemorrhagic	1	1	100.00	3	3	100.00
Total	424	35	8.25	225	79	35.11

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 424 protected cases only 35 died while of the 225 unprotected as many as 79 died. Nearly 93 p.c. 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	339	84	24.77
1913	223	44	19.73
1914	262	6	9.67
1915	243	49	20.16
1916	233	162	22.10
1917	158	8	5.06
1918	199	37	18.59
1919	1120	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	1448	257	17.75
1926	121	19	15.70
1927	649	114	17.56



### Chicken-pox.

The total number of cases of Chicken-pox treated during the year under report was 221 which included 3 cases remaining from previous year. The figure for the previous year was 202. There was no death among the cases admitted.

### Measles.

76 cases of Measles were treated during the year. There were no deaths amongst them, 67 having been discharged as cured and 9 remaining at the end of the year. The case mortality rate was nil as compared with 3.39 of the previous year. The number of cases treated in the previous year was 59.

### Mumps.

115 cases of Mumps were treated during the year as compared with 26 cases of the previous year. 113 cases were discharged as cured and 2 had remained at the end of the year. The case mortality rate was nil which is the same as that of the previous year.

### Diphtheria.

The number of cases of Diphtheria treated during the year was 11. Of these 6 recovered 3 died and two had remained at the end of the year giving a case mortality rate of 27.27 p.c. There was only one case of Diphtheria treated in the hospital during the previous year and this had recovered. All the cases of Diphtheria had injections of Anti-toxin.

### Erysipelas.

13 cases of Erysipelas were treated during the year of which 3 died giving a case mortality of 23.08 p.c. as compared with 10 cases 3 deaths and a case mortality of 30.00 p.c. during the previous year.

### Influenza.

8 cases of Influenza including Influenzal Pneumonia were treated during the year as compared with 27 cases of the year before. Of these 8 cases 5 recovered and 3 died giving a case mortality rate of 37.50 per cent. The number of recoveries in previous year and the case mortality rate are 12 and 51.85 per cent.

### Cerebro-spinal Meningitis.

12 cases were admitted during the year of which 7 recovered and 5 died giving a case mortality rate of 41.67 p.c. as compared with 7 admissions 2 cures 5 deaths and a case mortality of 71.43 p.c. of the previous year.



The following table gives the classification of males and females of different communities:—

		Hindus.			Mohammedans.			Burmese.			Anglo-Indian.		
		Admitted.	Cured.	Died.	Admitted.	Cured.	Died.	Admitted.	Cured.	Died.	Admitted.	Cured.	Died.
Males	...	9	5	4	1	...	1	1	1	0	...	...	...
Females	...	1	1	...	...	...	...	...	...	...	...	...	...
Total	...	10	6	4	1	...	1	1	1	0	...	...	...

The following table gives the number of cases admitted during each month of the year:—

Month.	Admitted.	Cured.	Died.	Remaining.
January	1	1	—	
February	1	—	1	
March	3	2	1	
April	—	—	—	
May	1	1	—	
June	1	—	1	
July	1	—	1	
August	1	—	1	
September	1	1	—	
October	1	1	—	
November	1	1	—	
December	—	—	—	
Total	12	7	5	

In all 12 cases lumbar puncture was performed, 10 by the staff of the hospital and 2 by that of Rangoon General Hospital prior to transfer to this hospital.



Meningococci were found in 9 cases and absent in the other 3.

Anti-Meningococcus serum was injected in six cases of which 3 recovered and 3 died. No serum was injected in the other six cases of which 4 recovered and 2 died. (One lumbar puncture was done in the Rangoon General Hospital and died within 8 hours of admission into the hospital; in the other meningococci were not found)

### Diarrhoea.

32 cases of Diarrhoeas were admitted into the hospital for observation, out of which 28 recovered and 4 died giving a case mortality of 12.50.

### Adenitis.

15 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 these cases recovered.

### All other diseases.

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

219 cases were included under this heading of which 37 proved fatal, i. e., 6 Dysentery, 31 Gastro-Enterites, 1 Malaria, 9 Pneumonia, 1 Pulmonary Tuberculosis, 1 General Debility, 1 Beri-beri, 1 Pyaemia, 1 Tetanus and 3 Pyrexia of unknown origin.

VIII. All the Surgical work done at the hospital was of a minor character such as opening Buboes lumbar punctures etc.

### IX. Expenditure : -

	1926.	1927.
	Rs.	Rs.
1. Establishment	60,000	59,371
2. Medicine	2,505	2,511
	{ European	
	{ Bazaar	
3. Diet	217	390
4. Miscellaneous	8,088	15,827
charges.	2,929	2,851
5. Buildings & Repairs	7,152	13,721
Total ....	80,901	94,671

The increase under Diet and Bazaar Medicines is due to the larger number of patients treated during the year as compared with that of the previous year-viz, 1,476 patients in 1927 with 880 in 1926. The increase under Buildings is due to an expenditure of Rs. 5,200 incurred in the re-erection of menial quarters which were dilapidated.



### 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 oil, Digitalin, etc.

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

**Small-pox**—A freshly saturated solution of Potassium permanganate is painted on the skin where the eruption have appeared or if necessary on the entire skin of the body. This method of treatment has been adopted since the end of November of the year under report and it has been found that not only is the intense factor so characteristic of Small-pox patients absent from the wards but the course of the evolution of the skin lesions is modified cutting short or aborting the stage of pustulation and bringing the stage of dessication earlier in a good number of cases. The secondary rise of fever is not also so severe. It is now a routine to paint with this solution the skin of every patient admitted into the hospital for small-pox and its result will be summarised in the next report. In the few cases of which I have had experience the results appear to be encouraging enough to justify a trial on a large scale.

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

### Concluding Remarks.

The largest number of patients admitted into this hospital came from the poor, many of whom are 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 disease 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 the generosity in supplying this hospital daily with newspaper.

B. P. SRIVASTAVA

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

Medical Officer,

Contagious Diseases Hospital

Municipal Corporation of Rangoon.

Rangoon:

The 5th, January 1927.



# ANNUAL REPORT

## ON THE WORKING OF THE MUNICIPAL OBSERVATION HOSPITAL

Municipal Corporation of Rangoon,

For the Year ending the 31st December 1927.

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

**I. Class of Hospital and 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 patient.
- (6) Servants' quarters and Kitchens.

All the above buildings have been kept under proper repair.

**Equipment.**—There is not much to say as 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
3 Ward-Sweepers	1 Waterman-Lampman
1 Female Attendant	2 Gate Durwans
	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:—**

1926.			1927.		
Male.	Female.	Total.	Male.	Female.	Total.
1,974	209	2,183	1,523	191	1,714

The total number of cases admitted during the year was 1,714 as compared with 2,183 of the previous year.

*Daily Average Attendance:*

1926.

14

1927.

12

The largest number of cases in the hospital on any one day was 68 as compared to 105 of the previous year. The respective days on which this occurred, were the 15th November 1927 and 8th December 1926.

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 percentage proportion of various Communities admitted into the Hospital.

1926.					1927.				
Europeans and Anglo-Indians.	Burmese.	Mohammedans.	Hindus.	Other Classes.	Europeans and Anglo-Indians.	Burmese	Mohammedans.	Hindus.	Other Classes.
0.14	0.23	23.55	70.54	5.54	0.06	0.29	25.38	69.72	4.55



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

Diseases.			1926.	1927.
Plague	...	...	...	...
Cholera	...	...	...	...
Small-pox	...	...	1	2
Chicken-pox	...	...	...	...
Measles	...	...	3	1
Mumps	...	...	...	...
Diphtheria	...	...	...	...
Erysipelas	...	...	...	...
Influenza	...	...	4	...
Cerebro-Spinal Meningitis	...	...	1	...
Diarrhoea	...	...	...	7
Adenitis	...	...	...	...
No. Appreciable diseases	...	...	1,336	828
All other diseases	...	...	838	876
Total			2,183	1,714

Out of a total of 1,714 cases admitted during the year 828 had no appreciable disease giving a percentage 51.11 to the total admission.

The 828 cases shown under all other diseases consisted of patients 798 of whom had a slight rise of temperature on admission coming down to normal in a day or so and the following other diseases: —

Pneumonia	11	Syphilis	2
Bronchitis	3	Epistaxis	1
Broncho-pneumonia	3	Acute abdomen	1
Ulcer	1	T. B. Lymphadenitis	1
Dysentery	3	Burns	1
Malaria	1	Rash	2
Total 30			

Only 3 cases of infectious diseases were admitted during the year out of a total of 1,714 admissions giving a percentage of 0.18 to the total number admitted.

They were 2 cases of Small-pox and 1 of Measles.



**Expenditure:—**

		1926.	1927.
		Rs.	Rs.
(1)	Establishment	.... 2,650	2,509
(2)	Diet	.... 1,150	729
(3)	Miscellaneous charges	.... 206	446
(4)	Buildings and Repairs	....	....

The decrease under diet is due to the less number of persons admitted. The increase under miscellaneous charges is due to purchase of furniture for the hospital.

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

B. P. SRIVASTAVA.

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

*Medical Officer,*

*Observation Hospital,*

*Municipal Corporation of Rangoon.*

RANGOON:

*The 25th January 1927.*

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*Meteorological Data for the City of Rangoon during the year 1927.*

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	...	89·7	65·5	77·6	78	N. 22° E.	...
February	...	92·9	68·2	80·6	82	N. 9° E.	·43
March	...	96·2	79·5	83·3	80	N. 23° W.	...
April	...	95·5	75·5	85·5	80	S. 65° W.	3·12
May	...	89·4	77·0	83·2	88	S. 8° W.	11·39
June	...	86·9	76·7	81·8	90	S. 6° W.	16·27
July	...	84·8	76·1	80·5	93	S. 10° W.	28·73
August	...	85·1	75·3	80·2	93	S. 7° W.	20·01
September	...	87·4	76·3	81·8	91	S. 34° E.	15·80
October	...	87·9	75·7	81·8	87	N. 40° E.	11·19
November	...	89·3	72·4	80·9	82	N. 34° E.	1·15
December	...	87·8	66·3	77·1	81	N. 17° E.	·12



# VITAL STATISTICS.

## Table No. 1.—Births registered by Registration Circles during 1927.

1	2	3	4	5	6	7	8	9							
Registration Circles.	POPULATION ACCORDING TO CENSUS 1921.	NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.							
		Male.		Total.	Male.		Total.								
		Male.	Female.	Total.	Male.	Female.	Total.								
Newly added area	2,027	1,516	3,543	74	44	118	36.51	29.02	33.31	168.18	...	...	...		
North Kemmendine	15,687	10,519	26,206	346	293	639	22.06	27.85	24.38	118.09	...	9.58	...		
South Kemmendine	20,910	11,003	31,913	478	505	983	22.86	45.90	30.80	94.65	11.72	...	...		
Lanmadaw	12,291	6,960	19,251	267	278	545	21.72	39.94	28.31	96.04	...	10.60	...		
Taroktan	13,999	7,950	21,949	258	254	512	18.43	31.95	23.33	101.57	...	4.51	...		
North West Town	16,368	5,173	21,541	224	217	441	13.69	41.95	20.47	103.23	...	...	...		
South West Town	8,883	2,871	11,754	104	84	188	11.71	29.26	15.99	123.81	...	...	...		
North East Town	16,190	6,850	23,040	252	186	438	15.57	27.15	19.01	135.48	...	...	...		
South East Town	12,441	3,429	15,870	119	124	243	9.57	36.16	15.31	95.97	...	...	...		
Betataung	13,648	5,671	19,319	208	196	404	15.24	34.56	20.91	106.12	...	7.35	...		
Yegyaw	15,048	8,351	23,399	335	310	645	22.26	37.12	27.57	108.06	...	...	...		
Theinbyu	23,288	13,912	37,200	381	368	749	16.36	26.45	20.13	103.53	...	11.10	...		
Cantonment	4,540	1,931	6,471	35	33	68	7.71	17.09	10.51	106.06	...	8.19	...		
Dala	11,731	3,926	15,657	159	168	327	13.55	42.79	20.89	94.64	...	2.43	...		
Kanaungto	11,158	4,599	15,757	126	99	225	11.29	21.53	14.28	127.27	...	8.95	...		
Tamwe	20,541	10,393	30,934	419	372	791	20.40	35.79	25.57	112.63	...	9.21	...		
Port	13,400	401	13,801	...	...	...	...	...	...	...	...	...	...		
Hospitals and other	...	...	...	...	...	...	...	...	...	...	...	...	...		
Public Institutions	...	...	...	...	...	...	...	...	...	...	...	...	...		
Adventitious popula- tion	6,566	1,334	7,900	...	...	...	...	...	...	...	...	...	...		
Total	2,38,716	1,06,789	3,45,505	3,785	3,531	7,316	15.86	33.07	21.17	107.19	...	10.23	14.13	29.73	18.95



Table No. 2—Deaths by Registration

1	2		3	4	5			6			7
No.	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	63	55	118	114.55
	North Kemmaidine	...	3.37	77,76.26	1,587	10,519	26,206	480	410	890	117.07
	South Kemmaidine	...	2.43	13,132.92	20,910	11,003	31,913	329	280	609	117.50
	Lanmadaw	...	0.17	113,241.18	12,291	6,960	19,251	457	292	749	156.51
	Taroktan	...	0.13	168,838.46	13,999	7,950	21,949	417	194	611	214.95
	North West Town	...	0.13	165,700.00	16,368	5,173	21,541	274	162	436	169.14
	South West Town	...	0.11	106,85.455	8,883	2,871	11,754	70	37	107	189.19
	North East Town	...	0.17	135,529.41	16,190	6,850	23,040	254	170	424	149.41
	South East Town	...	0.21	75,571.43	12,441	3,429	15,870	152	81	233	187.65
	Botataung	...	1.25	34,174.40	13,648	5,671	19,319	363	183	546	198.36
	Yegyaw	...			15,048	8,351	23,399	371	259	630	143.24
	Theinbyu	...	1.39	26,762.59	23,288	13,912	37,200	643	519	1,162	123.89
	Cantonment	...	1.35	4,793.33	4,540	1,931	6,471	64	57	121	112.28
	Dala	...	6.58	4,774.16	11,731	3,926	15,657	236	129	365	182.95
	Kanaungto	...			11,158	4,599	15,757	236	130	366	181.54
	Tamwe	...	5.28	5,858.71	20,541	10,393	30,934	596	480	1,076	124.17
	Port	...	...	...	13,400	401	13,801	...	...	...	...
	Hospitals and other Public Institutions	...	...	...	...	...	...	1,929	479	2,408	402.71
	Adventitious population	...	...	...	6,566	1,334	7,900	...	...	...	...
	Rangoon River, Pegu River and Pazundaung creek.	...	6.75	...	...	...	...	...	...	...	...
	Total	...	30.40	11,365.30	238,716	106,789	3,45,505	6,934	3,917	10,851	177.02



Circles during the year 1927.

8													9				
DEATH PER 1,000 OF POPULATION FROM.													MEAN RATIO OF DEATHS PER 1,000 DURING PRE- VIOUS 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.			
...	...	...	...	...	1.98	..	2.54	1.13	9.03	.28	18.35	31.08	36.28	33.31			
.50	.15	...	.57	...	.80	.11	2.56	1.95	7.94	.23	19.16	30.60	38.98	33.96			
19	.16		.31	.03	.19	.19	1.82	1.66	4.14	.06	10.34	15.73	25.45	19.08			
...	.47	...	.36	31	.52	.16	3.43	4.10	9.45	.26	19.79	37.18	41.95	38.91			
...	.09	...	.14	.18	.59	.23	3.46	3.23	7.84	.14	11.94	29.79	24.40	27.84			
.05	.32	...	.79	.19	...	.84	1.30	1.35	6.17	.05	9.19	16.74	31.32	20.24			
.09	.59	...	.17	.09	.09	.34	.26	.43	2.72	...	4.34	7.88	12.89	9.10			
...	.26	...	.17	1.56	.22	.52	.13	1.61	6.25	.04	7.64	15.69	24.82	18.40			
.38	.13	...	.19	...	.25	.63	1.39	.88	4.22	.03	6.55	12.22	23.62	14.68			
.41	.36	...	.31	.36	.52	.62	3.31	2.80	6.21	...	13.35	26.60	32.67	28.26			
.21	.43	...	1.07	.09	73	.73	2.22	1.75	7.35	...	12.35	24.65	31.01	26.92			
.11	.32	...	.40	.31	.51	.38	3.47	1.56	8.25	.03	16.08	27.61	37.31	31.24			
...	...	...	...	...	1.39	.62	1.08	2.47	4.32	.15	8.65	14.10	29.52	18.70			
...	...	.13	...	...	1.53	.51	2.55	1.34	6.83	.32	10.09	20.12	32.86	23.31			
.25	.76	...	...	...	1.08	.25	2.73	1.27	5.71	.32	10.85	12.19	28.27	23.24			
.16	.19	...	.87	.03	1.07	.32	4.07	1.33	7.53	.16	19.04	29.02	46.18	34.79			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
.24	.59	.006	.49	.21	.63	.49	3.01	2.61	7.17	.81	15.15	29.05	36.68	31.41	32.45	41.70	35.05







Table No. 3.—Deaths by Registration Circles during each month of the year 1927.

Registration Circles.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
Newly added area	9	5	16	5	13	7	11	9	8	12	9	14	118
North-Kemmendine	73	74	66	69	61	71	85	73	60	94	71	93	890
South-Kemmendine	46	46	41	53	49	62	70	52	49	56	50	35	609
Lanmadaw	75	56	63	68	61	54	58	55	63	72	55	69	749
Taroktan	52	34	50	63	43	67	60	44	40	63	57	38	611
North-West Town	23	32	41	47	39	39	29	39	38	40	40	29	430
South-West Town	14	7	10	6	13	7	9	4	8	6	13	10	107
North-East Town	41	31	41	39	32	36	30	32	34	42	29	37	424
South-East Town	25	23	15	18	26	14	16	22	19	22	19	14	233
Botataung	46	37	38	35	41	35	49	45	42	59	52	67	546
Yegyaw	43	50	54	48	49	67	49	30	49	64	58	69	630
Theinbyu	86	80	99	88	80	107	124	104	89	96	107	102	1,162
Cantonment	11	7	6	9	10	9	11	17	4	13	9	15	121
Dala	30	29	26	19	37	35	29	29	31	38	23	39	365
Kanaungto	28	35	31	32	30	31	39	25	21	31	33	30	366
Tamwe	112	68	86	73	88	106	96	83	74	88	99	103	1,076
Port	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other Public Institutions	181	171	212	222	192	192	212	176	202	217	210	221	2,408
Total ...	895	785	895	894	864	939	977	839	831	1,013	934	985	10,851



Table No. 4.—Deaths registered according

1	2	3		4		5		6		7	
No.	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 3,785.	Female 3,531.	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 ...	10	14	9	9	3	1	2	7	2	
	North Kemmendine ...	106	91	37	50	11	10	11	13	23	22
	South Kemmendine ...	104	82	39	45	6	13	5	8	7	7
	Lanmadaw ...	95	71	42	37	10	9	7	7	23	9
	Taroktan ...	63	57	38	32	8	7	3	5	4	4
	North West Town ...	53	42	23	26	6	6	8	4	20	5
	South-West Town ...	10	11	6	9	...	2	4	2	5	2
	North East Town ...	57	42	26	16	5	4	7	3	9	18
	South East Town ...	21	24	9	6	3	3	4	...	8	4
	Botataung ...	56	51	24	17	3	5	6	4	18	3
	Yegyaw ...	81	70	40	34	8	10	10	7	11	4
	Theinbyu ...	179	137	48	55	17	25	12	8	21	21
	Cantonment ...	15	18	7	4	2	1	2	1	5	1
	Dala ...	41	32	25	24	3	7	3	2	8	1
	Kanaungto ...	42	38	21	19	9	5	6	...	8	5
	Tamwe ...	138	110	58	68	15	22	13	10	17	21
	Port ...	...	...	...	...	...	...	...	...	...	...
	Hospitals and other Public Institutions. ...	90	100	38	19	16	9	124	7	96	25
	TOTAL ..	1,160	990	490	470	125	139	124	83	290	154
	Ratio per mille ...	306.47		280.37							
	Total deaths under 5 years	Male 1650		Female 1460							
	Ratio per 1,000 ...	142.23		126.81		10.15	12.27	8.21	7.81	13.48	13.67

\* 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 1927.

8		9		10		11		12		REMARKS.
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 66,475.	Female. 47,10.	
Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male	Female.	
6	3	5	6	4	5	7	2	12	11	8 male and 3 female deaths, age shown unknown, in Civil General Hospital.
51	50	62	42	49	39	48	29	82	64	
30	30	46	22	32	16	25	13	35	44	
65	21	56	30	54	26	41	30	64	52	
45	12	73	23	62	23	54	15	67	16	
43	30	36	15	30	11	21	1	34	22	
17	2	6	1	4	3	10	4	8	1	
39	20	31	13	25	13	21	13	34	28	
21	12	35	8	17	7	15	4	19	13	
70	33	55	26	41	11	41	8	49	25	
41	29	44	21	46	27	32	20	58	37	
69	59	64	43	81	39	44	40	109	92	
5	6	7	8	8	4	8	6	5	8	
39	11	32	10	34	7	15	13	36	22	
34	14	35	14	28	11	22	7	31	17	
64	45	65	55	64	31	47	35	115	83	
..	...	...	...	..	...	...	...	...	...	
488	118	556	95	359	56	158	31	97	16	
1,127	495	1,208	432	938	329	609	271	855	551	
17.94		22.56		37.21		36.90		132.05	116.99	

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. 6. The Birth-rate and infantile Mortality in each Circle for the Year 1927.**

Circles.	Estimated normal population of 1927.	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 ...	3,942	24	118	29.96	203.39	
North Kemmendine ..	23,908	197	639	26.73	308.29	
South Kemmendine ...	24,234	186	983	40.56	189.22	
Lanmadaw ...	14,544	166	545	37.47	304.59	
Taroktan ...	18,570	120	512	27.57	234.38	
North West Town ..	11,462	95	441	38.47	215.42	
South West Town ..	6,244	21	188	30.11	111.70	
North East Town ..	15,790	99	438	27.74	226.03	
South East Town ...	8,402	45	243	28.92	185.19	
Botataung ...	11,858	107	404	34.07	264.85	
Yegyaw ...	20,112	151	645	32.07	234.11	
Theinbyu ...	29,886	315	749	25.06	420.56	
Cantonment ..	3,672	33	68	18.52	485.29	
Dalla ...	8,164	73	327	40.05	223.24	
Kanaungto ...	10,236	80	225	22.08	355.56	
Tamwe ...	22,276	248	791	35.51	313.53	
Port ...	938	...	...	...	...	
Hospitals and other Public Institutions ...	...	190	...	...	...	
Adventitious population	4,268	...	...	...	...	
Total ...	2,38,506	2,150	7,316	30.67	293.88	



Table 7.—*The number of Deaths from*

Months.		Cholera.			Small-pox.			Measles.			Plague.			Fevers.		
		1925	1926	1927	1925	1926	1927	1925	1926	1927	1925	1926	1927	1925	1926	1927
January	...	4	1	5	37	3	5	...	1	...	36	14	18	49	37	27
February	...	6	2	28	94	9	19	1	3	...	49	37	23	28	32	32
March	...	2	6	12	208	15	42	...	4	...	73	48	9	46	37	33
April	...	11	30	10	161	6	54	...	2	...	96	30	10	43	23	40
May	...	14	43	7	91	3	21	...	2	...	56	15	13	53	30	38
June	...	12	34	3	19	3	19	...	...	...	59	12	12	36	27	35
July	...	3	22	2	14	...	12	...	...	...	75	13	22	31	46	38
August	...	2	2	1	2	...	4	...	...	...	80	33	13	43	36	40
September	...	1	...	5	2	...	2	...	1	...	62	34	9	32	35	44
October	...	1	1	3	...	1	3	1	...	2	19	6	13	40	34	50
November	...	4	2	3	...	...	1	...	...	...	11	8	13	33	26	37
December	...	...	6	5	2	2	21	...	1	...	4	7	13	27	40	48
Total	...	60	149	84	630	42	203	2	14	2	620	257	168	461	403	462



*various causes for 1925, 1926 and 1927.*

Bowel complaints.			Respiratory Diseases.			Injuries.			Other causes.			Total.		
1925	1926	1927	1925	1926	1927	1925	1926	1927	1925	1926	1927	1925	1926	1927
86	85	73	277	333	277	11	20	16	481	443	474	981	947	895
50	70	70	266	312	237	17	15	28	423	446	348	934	926	785
59	86	69	321	342	309	21	28	24	465	405	397	1,195	971	895
88	112	73	308	292	325	20	29	31	459	457	351	1,186	981	894
130	135	92	334	300	275	22	14	13	435	424	405	1,135	966	864
148	220	136	301	316	267	18	16	16	442	486	451	1,035	1,114	939
234	420	157	303	323	256	17	17	31	466	596	459	1,143	1,437	977
132	257	101	298	340	250	12	29	21	508	561	409	1,077	1,258	839
98	109	67	268	298	261	17	36	19	506	493	424	986	1,006	831
72	72	59	273	280	310	18	16	21	479	476	552	903	886	1,013
63	54	59	272	290	332	23	23	28	447	455	461	853	858	934
89	75	84	311	252	279	21	16	33	491	482	502	945	881	985
1,249	1,695	1,040	3,532	3,678	3,378	217	259	281	5,602	5,734	5,233	12,273	12,231	10,851







Table No. 9—Deaths registered from Small-pox by Registration Circles during each month of the year 1927.

1	2	3												4		5		6	7	No.	
		Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1000 OF POPULATION				
															Male.	Female.	Male.				Female.
	Newly added area ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	North Kemmendine ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	South Kemmendine ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Lanmadaw ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Tarokton ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	North-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	South-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	North-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	South-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Botataung ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Yegyaw ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Theinbyu ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Cantonment ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Dala ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kanaungto ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Tamwe ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Hospitals and other Public Institutions...	3	10	23	33	9	9	8	3	...	1	1	14	95	19	114	...	...	...	...	
	Total ...	5	19	42	54	21	19	12	4	2	3	1	21	145	58	203	...	...	...	...	
											</										







TABLE No. 11.—Deaths registered from Plague by registration circles during each month of the year 1927.

Registration Circles.	3												4			5			6	7
	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.	No.		
													Male.	Female.	Male.	Female.				
Newly added area ...	...	...	...	3	3	3	2	4	...	...	...	...	12	3	...	...	...	...		
North Kemmendine ...	...	...	...	...	...	3	5	1	...	...	...	...	5	5	...	...	...	...		
South Kemmendine ...	...	...	1	...	...	1	...	...	1	1	...	...	6	1	...	...	...	...		
Lanmadaw ...	...	2	1	1	...	...	...	...	...	...	...	1	3	...	...	...	...	...		
Tarokten ...	...	...	...	1	...	...	1	2	...	2	...	2	14	3	...	...	...	...		
North-West Town ...	...	2	1	...	...	...	3	...	...	3	...	1	2	...	...	...	...	...		
South-West Town ...	...	...	...	1	...	...	...	...	...	...	...	...	3	1	...	...	...	...		
North-East Town ...	...	2	...	1	...	...	...	...	...	...	...	...	3	...	...	...	...	...		
South-East Town ...	...	1	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...		
Botataung ...	...	...	...	...	1	...	...	...	...	4	1	...	16	9	...	...	1'08	1'07		
Yegyaw ...	...	3	1	2	4	2	5	...	...	...	4	...	10	5	...	...	...	...		
Theinbyu ...	2	5	3	...	1	1	1	...	...	...	2	...	...	...	...	...	...	...		
Cantonment ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Dala ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Kanaungto ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Tanwe ...	12	5	...	...	1	...	1	3	2	1	1	...	...	...	...	...	...	...		
Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Hospitals and other Public Institutions...	2	3	2	2	3	3	4	2	...	4	2	...	33	1	...	...	...	...		
Total ...	18	23	9	10	13	12	22	13	9	13	13	13	129	39	168	54	37	49	2'29	



Table. No. 12.—Deaths registered from Enteric Fever by Registration Circles during each month of the year 1927.

1	2	3												4		5		6	7		
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		Male.	Female.			Total.	
														Male.	Female.						
Registration Circles.																					
	Newly added area	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lanmadaw	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tarokton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Botataung	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tanwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hospitals and other Public Institutions...	1	3	3	7	1	1	3	2	8	6	2	3	32	8	40	...	...	...	...	...
	Total ..	3	4	5	10	6	6	6	6	13	10	2	5	58	16	74	24	15	21	16	



Table No. 13 Deaths registered from Cerebro Spinal Meningitis by Registration Circles during each month of the year 1927.

1 No.	2 Registration Circles.	3												4		5			6	7		
		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.	No.		
														Male.	Female.	Total.	Male.	Female.			Total.	
	Newly added area ...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
	North Kemmendine ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South Kemmendine ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lanmadaw ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tarokton ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Botataung ...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
	Yegyaw ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Theinbyu ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cantonment ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dala ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kanaungto ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tanwe ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hospitals and other Public Institutions...	...	1	...	...	...	1	3	2	...	...	...	...	...	7	1	8	...	...	...	...	...
	Total ..	...	1	1	1	...	2	3	2	...	...	...	...	...	9	1	10	...	...	...	...	...



Table No. 14—Deaths registered from Diphtheria by Registration Circles during each month of the year 1927.

No.	1	2	3												4		5			6	7				
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		Male.	Female.	Total.						
															Ratio of Deaths per 1,000 of Population.										
No.	Registration Circles.																			Mean ratio per 1,000 during previous five years.	No.				
			Newly added area ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			North Kemmendine ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			South Kemmendine ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Lanmadaw ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Tarokton ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			North-West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			South-West Town ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			North-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			South-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Botataung ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Yegyaw ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Theinbyu ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Cantonment ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Dala ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Kanaungto ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Tamwe ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Hospitals and other Public Institutions...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total	2	...	1	1	...	1	1	...	1	1	2	...	6	4	10	...	...	...	...	...	...	...



Table No. 15—Deaths registered from Puerperal Septicæmia by Registration Circles during each month of the year 1927.

No.	1	2	3												4		5		6	7
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION			
															Male.	Female.	Male.	Female.		
Registration Circles.																				
Newly added area	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...
North Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
South Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
Lannadaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
Tarokton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
South-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South-East Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Botataung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cantounment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and other Public Institutions...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	3	3	...	3	4	2	5	1	3	1	3	1	3	1	...	29	29	...	...	...



Table No. 16.—Deaths registered from Malarial Fever by Registration Circles during each month of the year 1927.

1	2	3												4		5		6	7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		No.	Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.				Male.	Female.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
				Male.	Female.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									



Table No. 17. Deaths registered from Other Fevers including Influenza by Registration Circles during each month of the year 1927.

No.	Registration Circles.	3												4		5		6	7	No.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.				
														Male.	Female.	Male.	Female.			
	Newly added area ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	North Kemmendine ..	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	
	South Kemmendine ..	...	...	...	...	...	2	1	...	...	1	...	...	...	...	...	...	...	...	
	Lanmadaw ..	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	
	Tarokton ..	1	...	...	...	1	1	...	3	2	...	...	...	...	...	...	...	...	...	
	North-West Town ..	...	1	2	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	
	South-West Town ..	...	...	...	...	...	...	...	...	1	6	...	...	...	...	...	...	...	...	
	North-East Town ..	2	...	1	...	...	...	...	...	...	4	1	1	10	2	.72	.29	.52	.63	
	South-East Town ..	...	1	...	...	...	...	...	...	...	2	1	1	9	1	.62	.29	.34	.52	
	Botataung ..	2	...	...	3	1	...	...	1	...	2	1	2	6	6	.44	1.06	.35	.35	
	Yegyaw ..	3	1	1	1	1	...	...	...	...	3	2	1	14	3	.93	.36	.73	.73	
	Theinbyu ..	...	...	...	1	2	...	...	...	...	2	2	1	8	6	.34	.43	.38	.38	
	Cantonment ..	...	2	1	...	...	...	...	...	...	1	...	...	3	1	.66	.52	.62	.62	
	Dala ..	...	2	1	...	1	...	...	4	...	1	...	...	4	4	.34	1.02	.51	.51	
	Kanaungto ..	1	2	1	...	...	...	...	...	...	...	...	...	2	2	.18	.43	.25	.25	
	Tanwe ..	...	...	...	...	4	...	...	1	1	1	...	...	8	2	.39	.19	.32	.32	
	Port ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Hospitals and other Public Institutions...	1	2	4	7	4	2	3	5	2	2	2	3	34	5	...	...	...	...	
	Total ..	11	12	10	16	17	10	12	12	17	27	13	12	121	48	.51	.44	.49	.54	



Table No. 17A—Deaths registered from Influenza by Registration Circles during each month of the year 1927.

1	2	3												4		5		6	7			
		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.	Male.				Female.	Male.
		Newly added area	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		North Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		South Kemmendine	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...
		Lannadaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Tarokton	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		North-West Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		South-West Town	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		North-East Town	2	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...
		South-East Town	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...
		Botataung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Yegyaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Theinbyu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Cantonment	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Dala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kanaungto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Tamwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Hospitals and other Public Institutions...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total	4	4	4	4	6	5	7	3	4	4	12	6	2	45	16	61	19	15	18	32



Table. No. 17. B.—Deaths registered from Other Fevers excluding Influenza by Registration Circles during each month of the year 1927.

No.	Registration Circles.	3												4			5			Mean ratio per 1,000 during previous five years.	No.		
		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	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	2	...	06	...	10	...	08
	North Kemmendine	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	05
	South Kemmendine	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	...	...	...	14	...	14
	Lanmadaw	...	...	...	...	...	...	...	2	...	...	...	...	...	2	2	10	...	...	...	25	...	46
	Tarokton	...	1	...	...	...	...	...	...	1	1	...	...	...	1	1	1	...	...	...	39	...	09
	North-West Town	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	6	...	...	...	15	...	26
	South-West Town	...	...	1	...	...	...	...	...	1	1	...	...	...	1	1	3	...	...	...	...	...	19
	North-East Town	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	57
	South-East Town	...	...	...	...	...	3	...	...	...	2	1	...	...	5	6	15	...	...	106	...	...	64
	Botataung	2	...	...	1	...	...	...	...	3	...	1	...	...	12	3	15	...	...	36	...	...	24
	Yegyaw	3	1	1	1	1	...	...	...	...	3	1	...	...	6	3	9	...	...	22	...	...	15
	Theinbyu	...	...	...	1	...	...	...	...	...	2	2	...	...	1	3	7	...	...	...	...	...	45
	Cantonment	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	4	...	...	...	...	...	25
	Dala	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19
	Kanaungto	...	1	1	...	...	...	...	...	...	...	...	...	...	3	2	4	...	...	...	...	...	...
	Tamwe	...	2	...	2	...	...	...	1	...	1	1	...	...	2	2	6	...	...	...	...	...	...
	Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hospitals and other Public Institutions...	1	2	3	3	4	1	4	3	4	...	1	3	...	24	5	29	...	...	...	...	...	...
	<b>Total</b>	7	8	6	10	12	3	9	8	13	15	7	10	76	32	108	...	32	30	31	...	...	23



Table. No. 18.— Deaths registered from Diarrhoea and Dysentery by Registration Circles during each month of the year, 1927.

1	2	3												4		5			6	7		
		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.	No
			Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.							
	Newly added area ....	1	...	1	...	2	1	1	...	1	...	1	...	4	5	9	1.97	3.29	2.54			
	North Kemmendine ....	5	9	3	4	6	6	12	5	5	4	2	6	46	21	67	2.93	1.99	2.56			
	South Kemmendine ....	5	6	4	4	6	8	11	7	3	2	1	1	35	23	58	1.67	2.09	1.82			
	Lanmadaw .....	3	2	6	1	8	6	13	4	3	7	4	9	46	20	66	3.74	2.87	3.43			
	Tarokton .....	5	4	1	5	7	13	14	6	4	4	8	5	52	24	76	3.71	3.02	3.46			
	North-West Town ....	1	2	2	1	1	9	7	1	2	...	...	2	18	10	28	1.10	1.93	1.30			
	South-West Town ....	...	...	...	...	...	1	1	...	...	...	...	...	3	...	3	.34	...	.26			
	North-East Town ....	4	3	3	1	1	8	4	4	3	2	2	1	24	12	36	1.48	1.75	1.56			
	South-East Town ....	...	3	1	...	2	2	3	3	2	2	1	3	14	8	22	1.13	2.33	1.39			
	Botataung .....	4	4	1	4	7	10	9	7	3	3	2	10	41	23	64	3.00	4.01	3.31			
	Yegyaw .....	3	2	5	3	7	3	6	3	7	2	4	7	30	22	52	1.99	2.63	2.22			
	Theinbyu .....	11	8	11	12	7	16	16	15	8	7	7	11	66	63	129	2.83	4.53	3.47			
	Cantonment .....	2	1	1	...	...	1	2	...	...	...	...	...	6	1	7	1.32	.52	1.08			
	Dala .....	3	4	2	2	7	3	8	1	3	4	...	3	25	15	40	2.13	3.82	2.55			
	Kanaungto .....	1	6	3	8	6	2	6	3	2	3	...	3	33	10	43	2.96	2.17	2.73			
	Tamwe .....	6	5	10	10	13	19	17	15	4	6	10	11	75	51	126	3.65	4.91	4.07			
	Port .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	Hospitals and other Public Institutions....	19	11	15	18	12	28	27	27	17	13	16	11	178	36	214	...	...	...			
	Total .....	73	70	69	73	92	136	157	101	67	59	59	84	696	344	1040	2.92	3.22	3.01		3.33	



Table No. 19 Deaths registered from Tubercle of Lungs by Registration Circles during each month of the year 1927.

1	2	3												4		5		6	7			
		Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		Male.			Female.	Total	
															Male.	Female.						
No.																				Mean ratio per 1,000 during previous five years.	No	
	Newly added area	...	1	...	...	1	...	1	...	...	1	...	...	3	1	4	1.48	.66	1.13			
	North Kemmendine	...	2	2	...	4	1	6	2	2	2	11	23	28	51	1.47	2.66	1.95				
	South Kemmendine	...	1	1	4	6	2	5	9	3	3	8	28	25	53	1.34	2.27	1.66				
	Lamnadaw	...	10	6	7	9	8	3	5	4	8	6	59	20	79	4.80	2.87	4.10				
	Tarokton	...	7	3	11	10	5	3	9	3	4	5	54	17	71	3.86	2.14	3.23				
	North-West Town	...	4	2	1	4	3	1	1	1	3	1	14	15	29	.86	2.90	1.35				
	South-West Town	...	...	...	1	...	...	...	...	...	...	...	4	1	5	.45	.35	.43				
	North-East Town	...	7	1	1	2	4	1	1	2	5	6	20	17	37	1.24	2.48	1.61				
	South-East Town	...	...	3	1	1	1	...	...	...	...	...	9	5	14	.72	1.46	.88				
	Botataung	...	3	2	6	3	3	5	6	3	3	6	28	26	54	2.05	4.58	2.80				
	Yegyaw	...	1	3	5	5	5	7	...	6	6	4	1	20	21	41	1.33	2.51	1.75			
	Theinbyu	...	10	8	8	6	2	1	10	2	1	4	2	32	06	58	1.37	1.87	1.56			
	Cantonment	...	...	1	...	...	2	2	3	1	2	1	3	9	2	16	1.98	3.63	2.47			
	Dala	...	2	2	...	1	3	2	2	2	3	3	1	15	7	21	1.28	1.53	1.34			
	Kanaungto	...	...	1	...	4	4	...	2	3	1	2	3	14	2	20	1.25	1.30	1.27			
	Tamwe	...	6	6	5	4	6	2	2	4	1	1	2	28	13	41	1.36	1.25	1.33			
	Port	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	Hospitals and other	...	19	20	28	26	37	24	28	35	21	27	22	260	48	308	...	...	...			
	Public Institutions...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	Total	...	72	62	80	85	87	67	80	60	83	73	84	69	620	282	902	2.60	2.64	2.61	2.98	



TABLE No. 20 Deaths registered from Respiratory Diseases excluding Tubercle of Lungs by Registration Circles during each month of the year 1927.

1	2	3												4		5			6	7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Registration Circles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Table No. 21—Deaths registered from Injuries by Registration Circles during each month of the year 1927.

1	2	3												4		5		6	7		
		Registration Circles.												TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.				Mean ratio per 1,000 during previous five years.	No.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Male.	Female.				
	Newly added area ...	...	...	...	...	...	1	...	...	...	...	...	1	...	.49	...	.28	...	.28		
	North Kemmendine ...	...	1	...	2	1	1	...	...	...	...	...	5	1	.32	.10	.23	...	.23		
	South Kemmendine ...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	.18	.06	.06		
	Lanmadaw ...	1	...	3	1	...	...	1	...	...	...	...	...	3	.16	.53	.26	.14	.14		
	Tarokton ...	...	...	1	1	...	...	...	...	...	...	...	...	...	.21	...	.05	...	.05		
	North-West Town ...	...	...	...	...	1	...	...	...	...	...	...	...	1	.06	...	...	...	.04		
	South-West Town ...	...	1	...	1	...	...	...	...	...	...	...	1	...	.08	...	.03	...	.03		
	North-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	South-East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Botataung ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Yegyaw ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Theinbyu ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...		
	Cantonment ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.04	...	.03	...	.03		
	Dala ...	1	1	...	...	...	...	1	...	...	...	...	...	1	...	.53	.15	.15	.15		
	Kanaungto ...	...	...	...	1	...	...	1	...	...	...	...	2	4	.34	.25	.32	.32	.32		
	Tamwe ...	...	1	...	1	...	...	1	...	...	...	1	4	1	.36	.22	.32	.32	.32		
	Port ...	...	1	...	1	...	1	...	1	...	...	...	1	1	.15	.19	.16	.16	.16		
	Hospitals and other ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Public Institutions...	14	24	20	24	11	15	27	19	17	20	24	29	193	51	...	...	...	...		
	Total	16	28	24	31	13	16	31	21	19	21	28	33	219	62	.92	.58	.81	.69		



Table No. 22. Deaths registered from all other causes by Registration Circles during each month of the year 1927.

No.	Registration Circles.	3												4		5			Mean ratio per 1,000 during previous five years.	6		
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL		RATIO OF DEATHS PER 1000 OF POPULATION.						
														Male	Female	Male	Female	Total.				
	Newly added area ...	6	1	6	3	5	4	7	4	3	11	4	11	28	37	65	13.81	24.41	18.35			
	North Kemmendine ...	51	38	41	36	36	37	46	43	35	51	42	46	243	259	502	15.49	24.62	19.16			
	South Kemmendine ...	30	31	17	21	29	35	35	24	30	30	20	28	165	165	330	7.89	14.99	10.34			
	Lanmadaw ...	38	24	27	31	31	26	33	31	30	42	33	35	193	188	381	15.70	27.01	19.79			
	Tarokton ...	22	14	18	25	16	31	15	21	23	29	28	20	172	92	262	12.14	11.57	11.94			
	North-West Town ...	13	17	18	17	19	17	9	19	15	19	21	14	115	83	198	7.03	16.04	9.19			
	South-West Town ...	8	2	4	1	7	2	5	4	4	2	6	6	32	19	51	3.60	6.62	4.34			
	North-East Town ...	13	13	19	15	15	15	14	11	15	15	10	21	101	75	176	6.24	10.95	7.64			
	South-East Town ...	10	9	8	6	13	9	7	8	9	10	11	4	54	50	104	4.34	14.58	6.55			
	Botataung ...	19	17	17	14	15	15	27	22	28	29	25	30	160	98	258	11.72	17.28	13.30			
	Yegyaw ...	19	21	26	16	18	31	24	19	21	37	21	36	159	130	289	10.57	15.24	12.35			
	Theinbyu ...	40	36	39	48	49	55	65	54	56	57	51	48	327	271	598	14.04	19.48	16.08			
	Cantonment ...	6	2	4	5	4	5	3	5	1	5	7	9	26	30	56	5.73	15.54	8.65			
	Dala ...	15	11	12	5	15	21	12	13	12	17	12	13	99	59	158	8.44	15.03	10.09			
	Kanaungto ...	21	11	18	5	15	11	14	11	10	21	18	12	92	79	171	8.25	17.18	10.85			
	Tanwe ...	69	34	43	34	40	59	55	44	36	60	50	65	294	295	589	14.31	28.38	19.04			
	Port ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Hospitals and other Public Institutions...	94	67	80	65	78	78	88	76	96	117	102	104	788	257	1045	...	...	...			
	<b>Total</b>	474	348	397	351	405	451	459	409	424	552	461	502	3046	2187	5233	12.76	20.48	15.15	16.31		



TABLE NO. 23—Deaths from Diarrhoea and Dysentery registered according to Class by Registration Circles during the year 1927.

1	2.		3.						4											
Registration Circles.	Population according to Census of 1921.						Number of deaths registered.						Ratio of deaths per 1000 of population.							
	Christians.	Hindus	Muhammadans	Buddhists	Other Classes	Total	Christians		Hindus		Muham- medans.		Buddhists		Other Classes.		Total.	Male.	Female.	Total.
							Diarrhoea	Dysentery	Diarrhoea	Dysentery	Diarrhoea	Dysentery	Diarrhoea	Dysentery	Diarrhoea	Dysentery				
Newly Added Area	35	624	116	2,748	20	3,543	...	1	4	1	1	...	3	...	...	...	9	1.47	3.29	2.54
North Kemmendine	1,473	6,550	2,529	15,321	333	26,206	1	2	14	15	6	...	16	9	...	...	67	2.93	1.99	2.56
South Kemmendine	4,354	10,492	3,998	12,451	618	31,913	2	2	9	14	4	...	12	11	...	...	58	1.67	2.09	1.82
Lamnadaw	359	5,566	1,366	10,946	1,014	19,251	2	2	11	14	3	...	7	24	...	...	66	3.74	2.87	3.43
Taroktan	294	3,479	1,387	6,976	9,813	21,949	...	1	5	3	4	...	2	19	42	...	76	3.71	3.02	3.46
North-West Town	678	7,672	10,638	1,388	1,165	21,541	...	...	6	5	6	...	9	1	1	...	28	1.10	1.93	1.30
South-West Town	78	4,907	4,693	1,659	417	11,754	...	...	1	1	...	...	1	...	...	...	3	1.34	...	.26
North-East Town	3,797	9,311	5,403	3,200	1,329	23,040	1	1	13	12	3	...	2	...	...	...	36	1.48	1.75	1.56
South-East Town	2,429	7,576	4,281	1,216	377	15,870	2	2	7	5	1	...	2	2	...	...	22	1.13	2.33	1.39
Botataung	1,111	9,059	3,908	4,840	401	19,319	2	1	20	12	13	...	8	4	...	...	64	3.00	4.01	3.31
Yegyaw	2,375	9,175	3,419	7,785	645	23,399	...	...	16	15	4	...	6	7	...	...	52	1.99	2.63	2.22
Theinbyu	3,833	14,032	6,105	12,712	518	37,200	10	13	20	39	8	...	8	12	...	...	129	2.83	4.53	3.47
Cantonment	1,901	2,759	648	1,084	79	6,471	1	...	1	3	...	...	...	...	...	...	7	1.32	.52	1.08
Dala	234	6,919	2,470	5,806	228	15,657	...	2	10	9	3	...	...	6	...	...	40	2.13	3.82	2.55
Kanaungto	155	7,304	2,043	5,818	437	15,757	...	1	10	18	2	...	3	7	...	...	43	2.96	2.17	2.73
Tamwe	1,116	11,358	4,103	14,013	344	30,934	4	4	24	36	8	...	20	16	...	...	126	3.65	4.91	4.07
Port	869	7,116	4,265	1,374	177	13,801	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals and Other	...	...	...	...	...	...	6	17	37	76	...	...	...	...	...	...	...	...	...	...
Public Institutions	259	1,736	698	4,961	246	7,900	...	...	...	...	...	...	...	30	...	...	214	...	...	...
Adventitious	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Population	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	25,350	1,25,626	62,070	1,14,298	18,161	3,45,505	31	46	208	278	73	81	123	181	4	15	1,040	2.92	3.22	3.01



Table No. 24.

*The following Table gives a 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.		
	Ratio of deaths per 1,000 of population.			Ratio of deaths per 1,000 of population.		
	Males.	Females.	Total.	Males.	Females.	Total.
Newly Added Area ...	1.48	0.66	1.13	10.85	6.60	9.03
North Kemmendine ...	1.47	2.66	1.95	7.65	8.37	7.94
South Kemmendine ...	1.34	2.27	1.66	3.97	4.45	4.14
Lanmadaw ...	4.80	2.87	4.10	10.66	7.47	9.45
Taroktan ...	3.86	2.14	3.23	8.36	6.92	7.84
North-West Town ...	0.86	2.90	1.35	5.56	8.12	6.17
South-West Town ...	0.45	0.35	0.43	2.14	4.53	2.72
North-East Town ...	1.24	2.48	1.61	5.19	8.76	6.25
South-East Town ...	0.72	1.46	0.88	4.02	4.96	4.22
Botataung ...	2.05	4.58	2.80	6.96	4.41	6.21
Yegyaw ...	1.33	2.51	1.75	7.31	7.42	7.35
Theinbyu ...	1.37	1.87	1.56	7.60	9.34	8.25
Cantonment ...	1.98	3.63	2.47	2.64	8.29	4.32
Dala ...	1.28	1.53	1.34	5.88	9.68	6.83
Kanaungto ...	1.25	1.30	1.27	5.92	5.22	5.71
Tamwe ...	1.36	1.25	1.33	6.77	9.04	7.53



**Table No. 25. Statement showing the Immigration and Emigration for the Port of Rangoon during the year 1927.**

Year 1927.	Immigrants.					Emigrants.					Total.
	Adults.		Children.		Total.	Adults.		Children.			
	Males.	Females.	Boys.	Girls.		Males.	Females.	Boys.	Girls.		
1927	3,39,454	31,531	8,134	7,873	3,86,992	24,684	4,129	1,213	1,130	31,156	
			Indian	Ports		2,80,739				2,80,739	
	3,39,454	31,531	8,134	7,873	3,86,992	3,05,423	4,129	1,213	1,130	3,11,895	

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



Table No 26. *Burial Statement for the year January to December 1927.*

Serial No.	Burial or Burning Grounds.	No. of burials ordered by Medi- cal Registrars, etc.	No. of passes collected by Vaccinators and Caretakers.		Remarks.
			Old.	New.	
1.	Ayeywa near Jamal's land, Kemmendine	30	...	30	
2.	Seikgyi, Kemmendine	16	2	14	
3.	Municipal, West Hanthawaddy Road	3,274	152	3,122	
4.	Karen, Bagaya Road	26	5	21	
5.	Hteedan, Sanchoung Road	317	...	317	
6.	Armenian, Stockade Road	10	2	10	
7.	Baptist, Montgomery Street	26	11	15	
8.	Parsee, U Ohn Ghine Road	4	2	2	
9.	Jewish, U Ohn Ghine Road	7	...	7	
10.	Mogul, U Ohn Ghine Road	20	3	17	
11.	Chinese, Culvert Road	291	20	271	
12.	Chinese, Tamwe Road	497	24	473	
13.	Municipal East, Tamwe	4,407	227	4,180	
14.	Suratee, Tamwe	1,231	22	1,209	
15.	Dawbong, Patheingyi Village	77	...	77	
16.	Dawbong, Arracan Co's Village	52	1	51	
17.	Dawbong, near Steel's land	16	...	16	
18.	Dawbong, Ayeywa Village	5	...	5	
19.	Dalla Burial Ground	210	1	209	
20.	Hindu Burial Ground Dalla	43	...	43	
21.	Kamakasit (East)	34	...	34	
22.	Kamakasit (West)	35	2	33	
23.	Angyi, Dalla	57	...	57	
24.	Minywa Seikgyi Dalla	7	1	6	
	Carried over	...			



*Burial Statement for the year January to December 1927.—Concl'd.*

Serial No.	Burial or Burning Grounds.	No. of burials ordered by Medi- cal Registrar, etc.	No. of passes collected by Vaccinators and Caretakers.		Remarks.
			Old.	New.	
	Brought forward ...				
25.	Seikgyi, Kanaungto	225	5	220	
26.	Burmese, North Kanaungto	85	7	78	
27.	Mohammedan, do.	11	2	9	
28.	Cantonment	32	3	29	
29.	Kamayut	30	2	28	
30.	Shwedagone Pagoda Slopes	2	2	...	
31.	Kekine Burial Ground	2	2	...	
32.	Shwegondine Kyaungdike	1	1	...	
33.	Salin Kyaungdike	1	1	...	
34.	U Thiri Kyaungdike	1	1	...	
35.	Angyi Anouk Kyaungdike	1	1	...	
36.	Gandama Phongyi Kyaung	1	1	...	
37.	Roman Catholic closed Cemetery	4	3	1	
	No. of dead bodies in Mortuary	275	...	275	
	Total ...	11,363	507	10,860	

Waiting burial from last year	...	2
Total No. of deaths during year	...	10,851
Total No. of Still births during year		512
No. of dead bodies brought from outside Corporation limits.	...	54
Total	...	11,419

Total No. of passes collected during the year ... 11,367  
 No. of dead bodies removed to outside Corporation limits ... 35  
 Waiting burial passes at the end of the year ... 17

Total .. 11,419



# VACCINATION.

Table No. 1.—Statement comparing the work during the year 1927-28 with that each of the two preceding years.

Year.	Total number vaccinated.	Number successful vaccinated.		Rates per cent of Primary successful (verified.)	Average cost of each successful case.	Average number of persons vaccinated by each.		Primary vaccination per 1,000 of population.	Number of births registered per 1,000 of population.	RE MARKS.
		Primary.	Re-vaccination.			Vaccinator.	Registrar.			
1925-1926	41,410 *	18,977	10,688	99.62	0.10-11	...	1 874	118.96	19.12	There were 9 secondary cases performed during the year.
1926-1927	35,557 *	9,246	7,664	98.38	0.8-3	...	1,404	173.71	20.42	There were 8 secondary cases performed during the year.
1927-1928	92,836 *	9,546	28,335	97.54	0.3-9	...	2,886	268.70	22.09	There were 6 secondary cases performed during the year.

\* These figures does not include vaccinations done at the Port Health Station but includes those done by the Private Medical Practitioners.



Table No. 11.

*Statement showing births registered during the year 1927-1928, and vaccination of Infants under one year of age.*

CIRCLES.	Total births excluding Still births.	Still births.	Deaths under one year.	Number of Infant surviving.	Number of Infants vaccinated.	Percentage of vaccination to births registered.	Remarks.
Newly Added Area	133	2	26	107	324	243·61	
North Kemmendine	661	33	184	477	1,097	63·45	
South Kemmendine	1,068	65	174	894			
Lanmadaw	535	22	148	387	954	89·24	
Taroktan	534	11	122	412			
North-West Town	457	28	99	358	923	138·59	
South-West Town	209	9	22	187			
North-East Town	451	13	86	365	608	87·61	
South-East Town	243	13	48	195			
Botataung ...	432	20	101	331	724	65·23	
Yegyaw ...	678	31	154	524			
Theinbyu ...	800	48	315	485	1,751	110·26	
Tamwe ...	788	80	237	551			
Dalla ...	319	14	66	253	606	107·83	
Kanaungto	243	12	71	172			
Cantonment	81	7	35	...	...	..	
Port ...	...	...	...	...	..	...	
Hospitals and other Public Institutions	...	158	200	...	..	...	
Vaccination performed by Private Medical Practitioners	...	...	...	..	176	...	
Private Vaccinators	...	...	..	...	...	..	
Total ...	7,632	566	2,088	5,698	7,163	91·55	



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.					
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	
Eastern	North-East Town	43	289	2,841	72	79	1	...	...	4	2,841	1	..	...	...	
	South-East Town	7	104	2,153	..	...	...	...	...	35	2,153	..	...	...	...	
	Botataung West	39	331	4,457	59	33	10	...	...	...	4,457	...	5	2	...	
	Botataung East	...	...	...	...	2	...	...	...	...	...	...	...	...	...	
	Theinbyu	...	...	2	295	7	...	..	...	...	295	...	...	.	...	
	Pazundaung	...	...	..	...	...	...	...	...	...	...	...	...	...	...	
	Kandaw	...	34	9	319	6	...	...	...	...	319	...	...	...	...	
	Total	...	123	735	10,065	144	114	11	...	...	39	10,065	1	5	2	...
Western	North-West Town															
	“ C ” Block	...	36	103	1,860	18	40	...	...	1	...	1,860	...	...	...	...
	South-West Town															
	“D” Block	...	22	124	3,057	29	24	..	...	...	3,057	...	...	...	...	
	Taroktan	...	13	566	2,935	58	51	4	5	1	464	2,935	...	2	...	...
	Lanmadaw	...	12	52	1,814	30	6	...	...	1	...	1,814	1	..	...	...
	North Kemmendine	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
South Kemmendine	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	
	Total	...	83	845	9,666	135	121	4	5	3	464	9,666	1	2	...	...
	GRAND TOTAL	...	206	1,580	19,731	279	235	15	5	3	503	19,731	2	7	2	...



## TARY.

cleared during the year 1927.

CLEARED BY														REMARKS.
OWNER.							CORPORATON PLUMBER.							
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.	
1	Deep.	Surface.					1	Deep.	Surface.					
1	2	3	4	5	6	7	1	2	3	4	5	6	7	
40	241	...	60	72	1	...	3	44	...	11	7	...	...	
7	69	...	...	...	...	...	...	...	...	...	...	...	...	
31	306	...	51	28	8	...	8	25	..	8	...	...	...	
...	...	...	...	2	...	...	...	...	...	...	...	...	...	
...	2	...	5	...	...	...	...	...	...	2	...	...	...	
...	...	...	...	...	..	...	...	..	...	..	...	...	..	
28	9	...	4	..	...	...	6	...	...	2	...	...	..	
106	627	...	120	102	9	..	17	69	...	23	7	...	...	
32	95	...	16	40	...	...	3	8	...	2	...	...	...	
21	110	...	26	23	...	...	1	14	...	3	1	...	...	
12	98	...	55	49	4	5	...	4	...	3	...	...	...	
11	47	...	26	6	...	..	...	5	...	3	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	..	...	...	...	...	
76	350	...	123	118	4	5	4	31	...	11	1	...	...	
182	977	...	243	220	13	5	21	100	...	34	8	...	...	



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

Division.	Circle.	NOTICES SERV																
		Section.						Sch. II. Chap. I.					Sch. II. Ch.V. II.		Sch. II. Ch. VIII		Sch.	
		123	124	156 (i)	156 (2)	156 (4)	182.	Rule 1.	Rule 2.	Rule 25.	Rule 27 (e).	Rule 13.	Rule 2 (a)	Rule 2 (b)	Rule 1 (b)	Rule 1 (c).	Rule 1.	
Eastern	North East Town ..	...	...	...	...	...	494	64	18	408	...	...	26	59	368	..	163	
	South East Town ...	...	...	...	...	...	310	31	5	366	...	...	4	82	329	...	172	
	Botatoung West ...	...	...	...	...	9	271	5	5	421	...	...	...	32	277	.	80	
	Botatoung East ...	...	...	...	...	...	324	1	1	319	..	..	4	228	88	..	59	
	Theinbyu ...	...	...	...	...	1	145	18	12	351	...	...	...	154	106	...	101	
	Pazundaung ...	...	...	...	...	...	64	...	4	58	1	1	...	815	21	1	32	
	Kandaw ...	...	...	...	...	...	142	4	4	323	37	...	..	520	...	...	58	
	R. B. East Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	49	
	F. I. East Town ..	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	.	
	F. I. East sub. Area ...	...	...	...	...	...	...	...	...	...	...	..	..	...	...	...	...	
Total ...		...	...	...	...	10	1,750	123	49	2,246	38	1	34	1,890	1,189	1	714	
Western	North-West Town ...	...	...	...	...	...	365	63	3	376	...	...	27	40	236	...	152	
	South West Town ...	...	...	...	...	...	396	192	2	556	...	...	37	45	407	..	346	
	Taroktan ...	...	...	...	...	...	171	113	...	481	...	...	81	29	327	...	194	
	Lanmadaw ...	...	...	2	12	4	213	57	...	227	...	...	59	35	436	...	214	
	North Kemmendine ...	...	2	...	...	...	71	1	...	149	4	1	4	194	1	...	135	
	South Kemmendine ...	...	3	...	...	...	162	49	9	112	...	...	...	330	...	...	84	
	Kamayut ...	...	...	...	...	...	106	...	18	135	...	...	...	192	...	.	7	
	Dalla ...	...	...	...	...	...	...	...	...	...	1	...	...	3	...	...	4	
	Kanaungto ...	...	...	...	...	...	...	...	...	...	...	...	...	12	...	...	22	
	R. B. West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
	F. I. West Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	F. I. West sub: Area ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total ...		...	7	12	4	...	1,484	475	32	2,036	5	1	208	880	1,407	...	1,159	
Grand Total ...		...	7	12	4	10	3,234	598	81	4,282	43	2	242	2,770	2,596	1	1,873	



## sections of the City of Rangoon Municipal Act, 1927 during the year 1927.

ED UNDER.

II. Chap. VIIIA.					Sch. II. Ch. XIA.	Sch. II. Ch. XII.					Sch. II. Ch. XIII.			Milk bye-laws.	Ice and Aerated water bye-laws.	Sherbet and Ice- cream bye-laws.	Food bye laws	Sec. 179.	Sch. II. Ch. XV. R 4.9.11.	Ch. 13. R 2 (a)	Ch. 8A R 3.	Total.
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 20 & 21.	Rule 13.									
1	70	1	...	...	63	...	...	...	...	7	1	4	...	...	...	...	...	3	1	...	...	1,751
...	56	...	...	1	70	...	...	...	22	79	1	...	...	...	...	...	...	...	...	...	...	1,528
4	26	...	...	1	65	...	...	...	...	5	51	9	...	...	...	...	...	...	...	...	...	1,261
3	23	6	...	13	94	...	...	...	...	1	3	85	3	...	...	...	...	...	...	...	...	1,255
1	7	...	...	20	50	...	1	2	...	1	4	14	...	...	...	...	...	...	1	...	...	989
...	...	...	...	5	40	...	...	...	3	7	2	5	...	...	...	...	...	...	3	...	...	1,062
...	39	...	1	2	114	...	...	...	...	...	29	60	...	...	...	...	...	...	2	...	...	1,335
...	...	...	...	...	...	...	23	22	...	...	...	...	...	...	...	...	...	...	...	...	...	94
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	210	...	...	...	...	...	210
...	...	...	...	...	...	...	...	...	...	...	4	...	6	...	...	286	...	...	...	...	...	296
9	221	7	1	42	496	...	24	24	25	100	91	181	3	6	...	...	496	3	7	...	...	9,781
...	33	...	...	1	90	...	...	...	...	6	3	...	...	...	...	...	...	...	...	...	...	1,395
1	59	...	...	...	33	...	...	...	...	20	4	...	...	...	...	...	...	...	1	...	1	2,100
1	63	...	...	...	101	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	1,565
1	6	...	...	7	188	...	...	...	...	23	2	17	...	...	...	...	...	...	...	...	...	1,503
...	31	...	...	27	155	...	...	...	...	8	32	122	...	...	...	...	...	...	...	5	...	942
3	6	...	...	21	105	1	...	...	5	3	2	49	...	...	...	...	...	...	...	...	...	943
1	31	...	...	11	33	...	...	...	...	...	...	56	11	...	...	...	...	...	...	...	...	601
...	...	...	...	...	28	...	...	...	8	1	...	11	...	...	...	16	...	...	...	...	...	72
...	...	...	1	...	49	...	2	2	14	25	...	10	...	...	2	2	17	...	...	...	...	159
...	...	...	...	...	...	...	42	61	...	...	...	...	...	...	...	...	...	...	...	...	...	104
...	...	...	...	...	...	1	...	...	...	...	...	...	...	9	3	...	543	...	...	...	...	556
...	...	...	...	...	...	...	...	...	...	...	...	...	...	18	7	40	395	...	...	...	...	460
7	229	...	1	67	782	2	44	63	27	86	43	265	11	27	12	42	971	...	1	4	5	10,400
16	450	7	2	109	1,278	2	68	87	52	186	134	446	14	33	12	42	1,467	3	8	4	5	20,181







*the Ghee Act and the different Sections of the City of Rangoon Municipal Act, 1922 issued during the year 1927.*

[illegible]



**Table No. 3. - Showing Number of cases Prosecuted and amount of fines imposed under and the number of notices**

Rule or Section.	Name of offence.	EASTERN DIVISION.						
		No. of prosecutions.	No. of cases tried.	Amount of		No. of cases acquitted.	No. of cases withdrawn.	No. of cases struck off.
				Fines imposed. Rs.	Cost awarded Rs.			
	Brought Forward ...							
Do. Rule 6	Not furnishing names of keepers of registered building ...	4	4	17	4	...	...	4
Do. Rule 10 (e)	Refusing access to registered building for inspection ...	37	37	200	27	...	10	27
Do. Rule 10 (g)	Overcrowding in registered building ...	910	897	7,203	742	2	13	742
Do. Rule 13	Failure to do repairs, etc., to registered building under R. B. Rules ...	27	27	322	24	...	3	24
Sch. II Chap. XIII	Keeping animals in contravention of rules ...	156	152	875	95	10	4	95
Sch. II Chap. XV	Breach of market rules ...	6	6	62	6	...	...	6
Sch. II Chap. XVI	Breach of rules respecting condensed milk ...	2	1	5	1	...	1	1
„ 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 ...	241	204	1,510	158	—	37	158
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 ...	6	...	55	6	...	...	6
Bye-laws for aerated water, Ice cream, etc. (Sec. 102, B. M. Act, 1898).	Sale of aerated water, Ice cream, etc., without license ...	...	...	...	...	...	...	...
Sec. 124 ...	Storing or keeping in any premises articles prescribed as D and O or likely to be a nuisance or dangerous ...	...	...	...	...	...	...	...
Sec. 182 ...	Execution of work required of any person at owner's cost ...	...	...	...	...	...	...	...
Ghee Act ...	Adulteration of ghee or refusing ghee sample for analysis ...	12	12	440	1	...	...	12
Sec. 126 ...	Sale of fish outside market ...	2	2	1	1	...	1	1
Sec. 156 (1 and 2)	Using house unfit for human habitation ...	...	...	...	...	...	...	...
„ (4) ...	Demolishing or repairing houses declared unfit for human habitation ...	...	...	...	...	...	...	...
Sec. 179 ...	Inspection of Premises ...	...	...	...	...	...	...	...
	Total ...	1,769	1,676	12,277	1,287	13	93	1,298



*the Ghee Act and the different Sections of the City of Rangoon Municipal Act, 1922 issued during the year 1927.*

WESTERN DIVISION.								Total								Number of notices issued
No. of prosecutions.	No. of cases with-drawn.	No. of cases tried.	No. of cases acquit-ted.	No. of cases struck off.	No. of cases con-victed.	Amount.		No. of prosecutions	N. of cases with-drawn	No. of cases tried	No. of cases acquit-ted.	No. of cases struck off.	No. of cases con-victed.	Amount of		
						Fine's imposed. Rs.	Cost awarded. Rs.							Fines imposed. Rs	Cost awarded. Rs.	
13	1	12	...	...	12	53	12	17	1	16	...	...	16	70	16	87
24	...	24	...	8	16	177	16	61	...	61	...	18	403	377	43	...
884	...	884	...	154	730	9,029	730	1,794	13	1,781	2	307	1,472	16,232	1,472	52
8	...	8	...	1	7	43	7	35	...	35	...	4	31	365	31	186
149	2	147	...	37	110	513	110	305	6	299	10	84	205	1,388	205	598
...	...	...	...	...	...	...	...	6	...	6	...	...	6	62	6	8
3	1	2	...	...	2	101	2	5	2	3	...	...	3	106	3	...
289	33	256	...	75	181	1,659	181	530	70	460	...	121	339	3,169	339	1,467
8	...	8	...	1	7	72	7	14	...	14	...	1	13	127	13	33
3	...	3	...	...	3	21	3	3	...	3	...	...	3	21	3	54
1	...	...	...	...	1	1	1	1	...	1	...	...	1	1	1	7
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3,234
12	...	12	1	...	11	1,235	...	24	...	24	1	...	23	1,675	1	...
...	...	...	...	...	...	...	...	2	...	2	...	1	1	1	1	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
1,716	67	1,649	6	355	1,288	14,103/8	1,277	3,485	160	3,325	19	720	2,586	26,380/8	2,564	20,296











