

FIFTY-SECOND ANNUAL REPORT

OF THE

SANITARY COMMISSIONER FOR THE GOVERNMENT OF BOMBAY

1,915

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency,

AND

**The Annual Reports of the Health Officers of the Ports of Bombay,
Karachi and Aden.**



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SECTIONS I TO IV.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

In accordance with Government Notification in the General Department No. 2694, dated 29th March 1915, published at page 930 of Part I of the *Bombay Government Gazette*, dated 1st April 1915, the Cantonment of Jacobabad was closed from 1st April 1915.

2. Throughout this report figures for population are those at the time of the last census taken in March 1911.

3. During the year, among 30,192 Europeans 323 births and 200 deaths were recorded against 238 and 280 in 1914, the calculated birth rate was 10·65 per mille against 9·54 in 1914 and the death rate 6·62 against 9·27. One hundred and fifty-seven male and 166 female births were recorded against 137 and 151 in 1914, while 127 male and 73 female deaths were reported against 179 and 101 in 1914.

4. In a population of 8,902, 198 births were registered against 173 in 1914 and 138 deaths against 152; the birth rate was 22·24 per mille against 19·44 in 1914 and the death rate 15·50 against 17·08.

Of the births 107 were males and 91 females against 97 and 76 in 1914, whilst of the deaths 76 were males and 62 females against 74 and 78 in 1914.

5. The population including Sind is 19,587,383. There are now, including Bombay City, 27 Collectorates comprising 248 rural (Taluka or Mahal) Registration Circles, 104 towns and 8 Cantonments: in addition statistical returns are received from 7 Cantonments in quasi-foreign territory.

The population of the rural circles is 16,407,762; of the town circles 3,106,656; of the Cantonments in British territory 72,965; and of the Cantonments in Native States 100,089 persons.

6. 726,780 births were registered showing a decrease of 6,296 from the figure for 1914 and increase of 66,812 over that for the decennial mean. The number of births recorded annually since 1905 is given below:—

1905	...	...	611,173	1911	...	...	705,090
1906	...	...	625,486	1912	...	...	684,890
1907	...	...	610,533	1913	...	...	684,803
1908	...	...	660,201	1914	...	...	733,076
1909	...	...	657,685	1915	...	...	726,780
1910	...	...	689,701				

7. The birth rate for the year was 37·10 and is compared below with the rates recorded in other parts of India—

Bengal	...	...	31·80	Bihar and Orissa	...	...	40·40
Madras	31·2	United Provinces	43·49
Assam	33·60	Punjab	43·60
Burma	35·13	Central Provinces	47·95

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! Sind and Bombay City be excluded the birth rate for the Presidency was 41·37 against 42·1 in 1914. As usual a wide divergence between the birth rate for rural areas (42·67) and that for urban areas (31·73) has to be recorded.

S. Over rural areas the variation in birth rate was from 57·16 for Man Taluka in Satara District to 26·48 for Yellapur Taluka in Kanara District. Of the 187 talukas, pethas and mahals 23 or 12·3 per cent. returned birth rates under 35 per 1,000. Of these, 10 (Malvan, Vengurla, Devgad, Rajapur, Ratnagiri, Chiplun, Guhagar, Khed, Dapoli, and Mandangad) were in Ratnagiri, 7 (Karwar, Kumta, Ankola, Sirsi, Haliyal, Yellapur and Supa) in Kanara, 2 (Walwa and Malcompeth) in Satara, 2 (Bassein and Salsette) in Thana, 1 (Mawal) in Poona and 1 (Hubli) in Dharwar.

Registration in rural areas shows signs during the past two years of great improvement which is probably an index of increased interest taken in the matter by District officers. This improvement should be maintained and further advance is possible: the attainment of accuracy in registration is so important for the future of the Presidency that District officers may rest assured that time spent by them in the examination of village registers is well spent.

9. Out of 85 towns 22 returned birth rates of over 40, *viz.* Dohad (61·81), Borsad (51·94), Dholka (51·78), Umroth (51·72), Erandol (49·75), Jambusar (49·72), Dhanduka (49·01), Gokarn (48·27), Ranebennur (47·39), Sholapur (46·53), Kapadvanj (45·94), Kaira (45·91), Nadiad (45·78), Gadag-Bettegiri (44·23), Mehmabad (42·97), Barsi (42·88), Nasirabad (42·81), Ahmedabad (42·31), Parola (41·96), Bagalkot (41·05), Dharwar (40·72), Gokak (40·68).

For 51 towns or 60 per cent. (against 12·3 per cent. for rural areas) the recorded birth rates were less than 35 per 1,000: for 7 towns—against 13 in 1914—the recorded birth rates were less than 20, *viz.* Lonavla (19·28), Islampur (19·01), Kalyan (18·88), Kurla (18·63), Uran (15·78), Junnar (14·17), and Poona (11·01).

The reason for disparity in birth rates for urban areas needs investigation for each area, but it may be said that generally the cause is inefficient registration. The effect of active interest is evidenced in the cases of Ahmedabad and Surat cities. In 1912 the recorded birth rate for Ahmedabad was 23·4: it rose in 1913 to 30·84; in 1914 to 34·56 and in 1915 to 42·31. In 1914 the birth rate for Surat was 11·44; in 1915 it was 24·61. These improvements are undoubtedly due to the supervision exercised by the Health Officers and the members of the staff working under them: it would be difficult to find more ample justification for the policy leading to the appointment of Health Officers. Unfortunately a similar result is not forthcoming for Poona City, which again returns the lowest birth rate recorded in the Presidency. The matter is engaging the attention of the Health Officer.

10. In Bombay City 19,732 births were registered against 19,360 in the previous year, the birth rate being 20·48.

11. In Sind the birth rate was 23·29 against 21·95 in 1914. It is again noted that the birth rate for urban areas (32·17) is much in excess of that for rural areas (22·07), a reversal of the condition existing in the Presidency.

The registration of births is still very defective in Sind. Of 19 urban circles two—Karachi (41·60) and Rohri (41·13)—returned birth rates of over 40; four—Ratodero (37·33), Kambar (36·43), Larkana (35·90), Tatta (35·39)—between 35 and 40; and four—Sukkur (33·54), Jacobabad (32·22), Shikarpur (32·03) and Umarnot (31·68)—between 30 and 35.

Registration in rural areas in Sind presents many difficulties and for this reason deserves progressive attention.

12. The birth rate in Karachi Cantonment was 20·49 while for remaining cantonments it was below 20, varying between 17·96 for Kirkee Cantonment and 5·94 for Ahmednagar.

13. Out of 726,780 births 376,930 were males and 349,850 were females. The ratio of male to female births was as 107·74 to 100. The corresponding figure for males last year was 107·29. The proportion of male to female births varied from 102·32 in Dharwar to 136·35 in Nawabshah Collectorate.

Births by sexes.

14. 10,764 still births, or 1·43 per cent. of the total live births, were registered. The corresponding figures for 1914 were 10,034 and 1·37 per cent.

Still births.

It is impossible to estimate the percentage of still births which remain unrecorded: an indication is given by taking extreme instances thus: the percentage of still to live births varied from 0·13 for Ahmednagar to 7·72 for the City of Bombay. In Belgaum (2·62), Dharwar (3·91), Bijapur (2·89) and Kanara (5·90) districts the percentages of still to live births are high as compared with Ratnagiri (·29), Satara (·35), West Khandesh (·46), Nawabshah (·47) and Sholapur (·55). These variations are not entirely caused by differences in conditions affecting viability.

15. 511,613 deaths were registered against 577,504 in 1914. Of the total deaths registered 283,672 occurred among males and 247,941 among females against 298,988 and 278,516 in 1914.

Deaths.

The number of deaths recorded in each year since 1905 is given:—

1905	...	588,394	1909	...	505,936	1913	...	521,539
1906	...	648,019	1910	...	566,003	1914	...	577,504
1907	...	603,605	1911	...	555,312	1915	...	511,613
1908	...	501,838	1912	...	633,210			

1915 must be considered, therefore, in spite of the high incidence of plague, as a comparatively healthy year.

16. The recorded death rate was 26·12 against 29·48 in 1914 and a decennial mean of 30·39.

The death rates recorded in other parts of India are given:—

Madras	...	...	22·0	Bihar and Orissa	...	32·2
Bengal	...	...	32·83	Punjab	...	36·33
Assam	...	...	30·86	United Provinces	...	30·05
Burma	...	...	27·99	Central Provinces	...	35·91

17. Excluding Bombay City and Sind the death rate for the Presidency was 28·13 against 32·12 in 1914. The death rates for rural and urban areas were 27·56 and 32·36 against 31·82 and 33·76 in 1914 respectively.

Death rate for Presidency.

For Collectorates the highest death rate (38·02) was recorded in Nasik District and the lowest (17·07) in Panch Mahals.

Of the 187 talukas, pethas and mahals two returned death rates above 50; viz. Niphad (59·94) and Athani (51·22); 9 returned rates above 40, viz. Sinnar, Chandor, Baglan in Nasik, Sholapur and Barsi in Sholapur, Ranebennur and Kod in Dharwar, Mundgod and Supa in Kanara.

For urban areas there was a very wide variation in the death rates between 85·27 for Sholapur and 13·78 for Dhulia. Out of 85 towns 10 against 16 in 1914 returned death rates over 40, viz. Sholapur (85·27), Ranebennur (75·93), Barsi (71·45), Islampur (57·61), Gokak (49·96), Athani (47·30), Nasik (47·13), Dohad (44·18), Malegaon (41·55) and Ahmedabad (40·67).

18. The death rate for Bombay City was 24·17, the registered number of deaths being 23,287 against 31,500 in 1914. The mean death rate for the previous 10 years was 42·39.

Death rate for Bombay City.

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18. The death rate for Bombay City was 24·17, the registered number of deaths being 23,287 against 31,500 in 1914. The mean death rate for the previous 10 years was 42·39.

Death rate for Bombay City.

19. The following table gives death rates corrected in accordance with age and sex distribution for the few towns for which such correction is possible :—

	Standard death rate.	Factor for correction.	Recorded death rate, 1915.	Corrected death rate.
Presidency	37.7	1.	28.13	28.13
Bombay City	31.2	1.21	24.17	29.24
Ahmedabad	36.3	1.03	40.67	41.89
Karachi	35.6	1.06	37.03	39.23
Surat	36.6	1.03	33.09	34.08
Poona	56.5	1.03	32.31	33.27
Sholapur	36.3	1.03	85.27	87.82

Comparison between different towns is only possible by the use of corrected death rates: the variations in the death rates for the towns mentioned in the table is very largely governed by the incidence of plague, but there is one other point which requires emphasis. The high death rate for Ahmedabad is not caused by plague; some of it is caused by intestinal diseases which have in Ahmedabad a tendency to seasonal prevalence during the monsoon. The comparatively low death rate in spite of plague in Poona City is due to a saving of child life by sterilisation of the water-supply: similar attention to the water-supply of Ahmedabad may be followed by like results.

20. The death rate for Sind was 18.00. The variation between the rate for urban areas (35.32) and that for rural areas (15.63) is very marked. The urban death rates range between 17.08 for Hala and 60.13 for Mirpurkhas.

21. The lowest death rate 5.56 was recorded in Ahmednagar and the highest 30.89 in Deolali.

22. Over the Presidency as a whole the births exceeded the deaths 215,167. Figures for collecterates are given in columns 6 and 9, Annual Form II, and the following table gives the natural increase or decrease in population for the principal registration areas :—

	Excess of births over deaths.	Percentage increase on population of 1911.	Excess of deaths over births.	Percentage decrease.
Presidency excluding Sind and Bombay City	200,180	1.3	.....	.....
Sind	18,542	.53	.....	.37
Bombay City ... ..	.....	.....	3,555	.....

23. 263,672 male and 247,941 female deaths were recorded giving death rates of 25.88 and 26.38 respectively against 29.34 and 29.63 for 1914. For every 100 females 106.34 males died. The corresponding figure for 1914 was 107.35. In Sind the ratio of male to female deaths was as 122.30 to 100.

24. The following is a short extract from the report of the Executive Health Officer of Bombay City :—

* * * * *

For the Presidency the infant death rate per 1,000 registered births was 172 against 193.81 in 1914. The male and female rates were 178.92 and 164.55 as compared with 201.86 and 185.15 in the previous year.

Further observations on the percentages of deaths occurring at different periods during the first year of life were made in the Belgaum, Dharwar,

Bijápur and Kánara Districts: the results are incorporated in the following table and compared with figures for Bombay City:—

District.	Under 1 month.	Between 1 and 6 months.	Between 6 and 12 months.
Belgaum	48·49	26·99	24·52
Dhárwár	42·36	31·97	25·67
Bijápur	42·82	23·21	23·97
Kánara	56·78	24·32	18·90
Bombay City	26·61	30·34	33·24

The fact that over 62 per cent. of all child births in Bombay are attended by municipal nurses and midwives may well account for the comparatively low percentage of deaths during the first month of life. The circumstances attending child birth in the mofussil are often dangerous to the life of the infant and of the mother, and schemes for their amelioration must exercise the attention of social reformers of the present day. Apart from these unfavourable circumstances there are other factors which influence largely the viability of the infant; the more important are diseases which sap the vitality of the mothers. Malaria and the evil results of prostitution are potent causes of the early death of the infant.

Deaths by castes or classes. 25. The deaths by classes in each Collectorate are recorded in Annual Form V, Appendix IV.

26. The general death-rate in Ahmedabad City fell from 41·66 to 40·67. The mean death-rate for the past 5 years being 47·23. Ahmedabad City. Plague caused 1, fever 4,152, dysentery 240 and respiratory diseases 2,530 as against 4, 4,487, 168 and 2,279, respectively, in 1914. There were 9,054 births recorded or 42·31 per mille of population. The deaths registered under 1 year were 2,559 corresponding to a ratio of 282·64 per 1,000 of registered births.

27. The subjoined table shows the number of deaths in 1915 arranged according to causes and contrasted with the results for 1914, and with the mean of preceding five years:—

	Mean for 5 years 1910—1914.		1915.		1914.	
	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
Cholera	19,386	·99	377	·02	17,779	·91
Small-pox	5,940	·30	1,425	·07	4,209	·21
Plague	39,955	2·05	43,824	2·24	20,060	1·02
Fever	255,671	13·21	224,797	11·48	259,164	13·23
Dysentery and Diarrhœa	42,442	2·19	31,707	1·62	42,961	2·19
Respiratory diseases... ..	61,434	3·13	63,364	3·23	65,911	3·37
Injuries	7,378	·38	8,113	·41	7,670	·39
Other causes	147,257	7·61	133,006	7·05	159,720	8·15
All causes	579,513	29·91	511,613	26·12	577,504	29·48

For comments on the causes of deaths, *vide* Section VI.

28. The total number of births registered in those Cantonments which are situated in *quasi*-foreign territory during the year 1915 was 2,117 against 2,513 in 1914; the birth-rate being 21·15 per mille as against 25·77 in 1914. There were 3,690 deaths giving a ratio of 36·86 per mille against 3,880 and a ratio of 38·76 in 1914.

The high death-rate for Aden is noteworthy, caused as it is very largely by deaths from dysentery and diarrhœa. The contrast in this respect between

the civil population of Cantonment and those living within municipal limits is very marked.

The statistics are tabulated below :—

Statement showing the names of Cantonments with Population, Births and Deaths from diseases for the year 1915.

Cantonments.	Population according to census of 1911.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from								Ratio of deaths per 1,000 of population									
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhea.	Respiratory diseases.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhea.	Respiratory diseases.	Injuries.	Other causes.	
Aden. {	Municipal limits.	40,624	67½	602	713	17·53	...	36	...	323	993	...	19	976	2,317	...	·88	...	7·91	24·41	...	·47	23·9
	Purely civil population of Cantonment.	307	7½	42	1	3·26	1	6	7	3·26	19·5
Baroda	3,473	1	3,473	73	23·09	...	...	1	26	4	...	1	29	61	...	...	·20	7·47	1·15	...	·29	6·3
Deesa	7,123	5	171,320	116	16·13	...	...	...	21	11	12	1	46	91	...	...	...	2·05	1·54	1·63	·14	6·4
Mhow	22,360	6·5	3,440	247	11·05	...	1	60	234	...	...	...	309	595	...	·04	2·68	10·46	...	...	...	13·4
Nasirabad	16,144	8·58	1,881	668	41·38	...	...	...	185	...	...	...	210	366	...	...	...	11·52	...	...	...	13·0
Nemuch	9,776	4·52	2,165	239	39·55	...	...	...	73	8	22	1	87	191	...	...	...	7·46	·82	2·25	·10	6·6
Rājkot	291	·56	359	1	4·97	...	...	...	1	...	...	...	1	2	...	...	...	4·97	...	...	...	1·9
Total	107,039	100·87	992	2,117	21·15	...	37	61	864	1,017	34	22	1,655	3,690	...	·37	·61	8·63	10·16	·34	·22	16·5	

29. The rainfall during April and May over the Deccan was well distributed with the exception of Khándesh, the Karnátak and the Konkan. Practically no rain fell in Gujarát

Rainfall.

during these months.

The south-west monsoon burst after the middle of June, and at first caused rainfall much above the average except in parts of Bijápur and on the coast of Kánara and north Gujarát. The excess was particularly noticeable in Kolába, Thána, East Khándesh, Ahmednagar and Poona Districts.

In July the rainfall was in excess generally over the Deccan and eastern portion of the Karnátak : it was in great defect in the Konkan and Gujarát.

In August the rainfall was markedly in defect over the whole reporting area, to be remedied except in Gujarát by a considerable excess in September. The condition in Gujarát by the end of September caused considerable anxiety, but timely rain fell in October.

The total rainfall in Broach, Kaira and Ahmedabad Districts was much below the average, and it was anticipated that in certain areas the supply of water might be scanty in the following-dry seasons : such scantiness is often associated with epidemic cholera. Precautionary measures were suggested.

The prices of food-grains in the Presidency were normal : in Sind low-paid servants of Government were granted grain compensation between the 1st June and end of October.

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

30. Three hundred and seventy-seven deaths were recorded compared with 17,779 in 1914. The mortality for each year since 1896 is given in the following table:—

Year.	Number of deaths.	Year.	Number of deaths.	Year.	Number of deaths.	Year.	Number of deaths.
1896	25,404	1901	13,600	1906	46,119	1911	5,817
1897	57,109	1902	3,329	1907	7,856	1912	64,505
1898	4,538	1903	1,825	1908	1,759	1913	5,134
1899	8,579	1904	13,156	1909	23,714	1914	17,779
1900	133,889	1905	5,396	1910	3,694	1915	377

Only once in the past 50 years have the inhabitants of the Presidency been so fortunate in the incidence of this disease: the comparative freedom in 1915 cannot, however, be taken as an index of sanitary progress, for, in the main cause of cholera—the indiscriminate fouling of the soil—there is little sign of improvement. So long as this can be said repetition of the experience of 1906, 1902, 1912 and 1914 may be expected. The elimination of cholera is in itself worthy of great effort, but when it is remembered that cholera is associated with excessive incidence of diarrhoea and dysentery and even of “fevers” the matter becomes of supreme importance. The future is not altogether without hope, for the past few years have seen the inauguration of several District Sanitary Associations: if the officials and members of these Associations keep in front of them the primary object of sanitary reform—the prevention of the contamination of water and food—the outlook for coming generations is bright.

31. *Distribution*:—Deaths were reported from 17 Collectorates in the Presidency and from 2 in Sind.

Thirteen towns and 61 villages reported deaths.

32. The only serious urban epidemics were in Godhra and Dohad Towns resulting in 55 and 45 deaths, respectively. Dr. Munsiff, the Deputy Sanitary Commissioner, visited Godhra and with the Civil Surgeon took steps to quash the disease. The origin of the disease was not ascertained, although in the case of Godhra suspicion rested on the river water. From these two towns the infection was carried to 12 villages, and gave rise to 36 deaths.

In the last quarter of the year 56 deaths were recorded from East and West Khandesh. Colonel Anderson, I. M. S., considers that the epidemic started in Bhusawal Town with the introduction of infection on the 15th October from Khandva in the Central Provinces by a guard on the railway. Ten deaths in Bhusawal resulted, the last case being reported on 30th October. No further deaths were registered till early in December, when two neighbouring villages on the banks of the Tapi river—Vitner and Anwarde Khurd were infected. The connecting link was probably the unrecognised infection of certain villages on the Tapi river. Colonel Anderson found that in Nanded Town in the Erandol Taluka 10 deaths in November really due to choleraic diarrhoea were registered as caused by fever. From Vitner and Anwarde Khurd the disease spread to other villages on the banks of the Tapi and Aner rivers. The disease was of a mild type and many recoveries were reported.

33. A very marked advance in the method of saving the lives of sufferers from the disease was made during the year by the issue of cholera “treatments”. Each “treatment” consists of 2 pills made to Sir L. Roger’s formula. This measure must result in good: the extent of benefit will depend on the rapidity with which treatments can be placed in the hands of village officers. To facilitate the early adoption of preventive and curative measures a post-card system of notification is being introduced.

DYSENTERY AND DIARRHŒA.

34. 31,707 deaths, of which 16,614 were males, and 15,093 females, were recorded against 42,961 in 1914, and 45,696 the mean of the previous 10 years.

The annual number of deaths registered under this head since 1904 is tabulated below:—

Year.	Number of deaths from dysentery and diarrhœa.	Year.	Number of deaths from dysentery and diarrhœa.
1904	61,470	1910	46,643
1905	55,488	1911	31,549
1906	61,736	1912	57,039
1907	53,708	1913	34,021
1908	40,781	1914	42,961
1909	35,039	1915	31,707
Total	303,222	Total	243,920
Mean	51,370	Mean	40,653

35. The urban death-rate was 2·23 and the rural 1·50.

The following table gives the towns in which the death-rate was over 2 per 1,000, and compares the death-rate for the year with the quinquennial mean:—

Town.	Death-rate.	Mean.	Town.	Death-rate.	Mean.
Erandol	2·36	0·95	Karad	2·76	4·19
Nasirabad	3·61	3·50	Ashta	2·24	1·86
Trimbak	2·94	1·96	Ratnágiri	7·58	2·43
Deolali	3·43	2·88	Vengurla	4·86	2·24
Thana	2·24	2·55	Gokak	2·73	5·37
Kurla	2·45	2·65	Athni	2·24	6·60
Bhiwandi	2·56	1·39	Dhárwár	2·62	1·82
Bombay	2·20	3·53	Nipáni	2·50	2·55
Ahmednagar	2·77	2·07	Gadag	4·53	2·12
Poona	5·38	9·49	Bijápur	2·14	1·32
Baramati	2·76	1·56	Bágalkot	3·41	3·02
Khed	3·10	1·61	Kárwár	3·16	2·71
Kirkkee	4·43	5·64	Gokarn	3·77	4·08
Sholápur	14·06	11·25	Honáwar	2·59	2·93
Bárai	3·20	5·01	Bhátikal	2·80	2·45
Pandharpur	7·39	9·06	Surat	2·85	1·12
Sátára	4·23	7·18	Borsad	2·86	3·92
Wái	3·16	3·15	Dákor	2·31	2·07

36. The dysentery death-rate in all these towns represents a very serious loss to the community and deserves attention. The disease, though rife during the hot weather in many places, is mainly a monsoon epidemic: that is from 60 to 80 per cent. of the deaths are reported during the last half of the year. The line of action from which benefit is most likely to result is sterilization of the drinking water-supply. This was tried after the beginning of July in the case of Poona City and the death-rate in the year fell from 9·49 to 5·38. The important point is that only 40 per cent. of the deaths were registered in the last half of the year instead of the usual 70 or 80 per cent.: again the reduction in the death-rate between the ages of 1 and 5 was very marked during the same period: this brings forward another fact that the chief cause of death at this age period are diseases of which diarrhœa is a prominent symptom. A study of the dysentery death-rates by age periods for the districts of Poona, Sholápur, Ahmednagar, Sátára and Ratnágiri emphasises the two facts that dysentery and diarrhœa are diseases especially fatal to children under the age of 5 during the monsoon months.

Age period.	Ahmednagar death-rates.		Poona death-rates.		Sholapur death-rates.		Satara death-rates.		Ratnagiri death-rates.	
	Aug.	Dec.	Aug.	Dec.	Aug.	Dec.	Aug.	Dec.	Aug.	Dec.
0—5	2.09	0.76	1.48	0.45	2.59	0.95	2.17	0.67	1.13	0.82
5—10	0.08	0.05	0.15	0.06	0.15	0.05	0.25	0.09	0.24	0.23
10—60	0.05	0.07	0.07	0.05	0.05	0.09	0.10	0.05	0.12	0.
Over 60	0.72	0.44	0.79	0.45	1.0	0.72	0.95	0.48	0.45	0.61

These figures would be still more striking if the population figures given in the census report permitted the calculation of death-rates for the 1—5 age period, for the majority of deaths occur between these ages. If the number of deaths from these diseases registered during August among children under 5 in Sholapur District had been maintained throughout the year a death-rate of 31 per 1,000 children would have been returned. The deaths during December were also of serious proportions, but represented, in comparison, a death-rate of 8 per 1,000. The liability to death falls rapidly in all 5 Districts with advancing years until old age is reached. The figures for Ratnagiri District are interesting in that rise in the death-rate among adults occurred in December as compared with August. It is possible that this rise is due to deaths of adults from diseases of which diarrhoea is often a terminal symptom, for instance malaria and tuberculosis.

37. The monsoon epidemic is undoubtedly largely due to the washing of surface impurities into the water supplies, and a great reduction in the sickness and mortality in Poona City was obtained by sterilization of the water with chlorine. In time this benefit can be extended to other towns provided with a general water-supply. Smaller towns especially those to which pilgrims are attracted need not be neglected, for Professor Cree Brown of the Engineering College has invented an apparatus for adding chemicals in correct proportion to small quantities of water: this apparatus can be worked wherever a reliable pump can be installed.

FEVERS.

38. During 1915, 224,797 deaths were recorded from fevers, against 259,164 in 1914 and a decennial mean of 252,597. The death-rate was 11.49 against 13.23 in 1914 and a quinquennial mean of 13.21.

The annual mortality attributed to fevers since 1904 is given below:—

Year.	Number of deaths from fever.	Year.	Number of deaths from fever.
1904	251,330	1910	263,528
1905	245,373	1911	223,027
1906	274,653	1912	286,321
1907	260,329	1913	246,319
1908	243,372	1914	259,164
1909	223,888	1915	224,797
Total	1,398,945	Total	1,503,156
Mean	233,158	Mean	250,526

39. It is obviously important to investigate as far as possible the conditions underlying a death-rate which amounts to rather over $\frac{1}{3}$ rd of the total death-rate. The most elementary part of such investigation consists in classifying the deaths according to age periods and seasons. This has been done for the past 8 years in the Southern Registration District, and the death-rates per age period for the 4 Collectorates are given below:—

	0-5.	5-20.	20-40.	40-60.	Over 60.
Belgaum	13.2	4.49	3.68	5.77	13.08
Dhárwár	16.02	4.49	4.99	8.24	22.46
Bijápur	21.53	4.07	3.97	8.08	34.94
Kánara	19.48	3.73	7.99	18.79	60.74

The high death-rates for all Districts at the age period 0-5, and the comparatively high death-rate for Kánara between the ages of 20 and 60 at once arrest attention. During the last 6 months of the year a similar analysis has been made of the figures for the Collectorates in the Central Registration District, and the result is tabulated:—

	0-5.	5-20.	20-40.	40-60.	Over 60.
Ahmednagar	15.73	1.65	1.96	3.81	9.59
Peona	18.91	2.02	1.93	3.95	22.07
Sholápur	18.25	1.83	1.75	2.77	14.09
Sátára	17.42	1.81	2.07	3.98	26.51
Ratnágiri	7.45	1.72	2.62	5.22	25.02

As the figures are for 6 months only each death-rate requires multiplication by some factor between 1 and 2 to bring it to an annual rate. In these Districts again the high incidence of fatal fevers during the first five years of life is very marked. In all the districts with the exception of Kánara and Ratnágiri from 40 to 60 per cent. of the deaths registered from fever between June and October are among children under 5. It is well known that intestinal disorders during early years of life commonly cause fever, and are very fatal. It has been pointed out in the section on cholera that in one village 10 deaths from choleraic diarrhœa were included under the heading fever, and this is no isolated instance. It is also certain that in infective intestinal affections of children death may occur before diarrhœa has had time to set in and when fever is probably the only symptom. The experience of past years has proved that the fever death-rate is exceptionally high in those years in which cholera is epidemic. All these facts point to intestinal disorders causing some portion of the fever mortality. The causes of intestinal disorders in children are the drinking of contaminated water and the eating of impure and unsuitable food, and there can be no reasonable doubt but that measures designed with the object of eliminating impure water and food will result in a lowering of the fever death-rate in addition to improvement in the mortality from cholera and diarrhoeal diseases. Impure water and food are at the bottom of the high mortality in this Presidency, and must receive attention before any material and continued improvement in morbidity and mortality can be expected.

40. The adult fever death-rate presents a more difficult problem so far as suggesting a remedy. In Kánara and probably in Ratnágiri the high death-rates between the ages of 40 and 60 are mainly due to malaria: a similar tendency to high mortality at this age period is observed in all Districts, and the season is the same for all—the last quarter of the year. In some Districts plague is a contributing factor, but probably not to a very large extent, for in severe plague years the fever mortality is usually lower than the average. It is impossible to give a definite reason for the high adult death-rate for each District without an investigation over a certain area of each District. The carrying out of such investigation can only be done as opportunities arise and must naturally be slow.

41. The investigation into malaria in Kánara concluded in August last, and a report by Dr. Mhaskar has been submitted. The medical practitioners of Hubli Town complained of the prevalence of malaria within the municipal limits and a special investigation was carried out by Mr. deMello, the acting Deputy Sanitary Commissioner of the District.

42. The preventive measures against malaria in the Presidency and Sind were limited practically to the treatment of sufferers with quinine. In Sind 8 Sub-Assistant Surgeons were appointed to travel in the Districts of Hyderabad (3), Nawábshah (2), Sukkur (2), and Thar and Parkar (1). They treated 7,174 cases of malaria.

In addition 2,937 lbs. of quinine were sold and distributed free in the Presidency and Sind. The agencies for sale and distribution were (a) District Local Boards, (b) Municipalities, (c) Post Offices.

The Municipalities and District Local Boards issued quinine mainly in the form of treatments, but some in powder and pill; while at the Post Offices it was sold in pice packets.

In Sind the District Local Boards sold in the form of treatments 107 lbs. and in powder 14.5 lbs.; and distributed free 330 lbs. as treatments, 48 lbs. in powder and 54.5 lbs. in pill. The Post Offices of the Karáchi, Hyderabad, Sukkur and Indus Right Bank Division sold 221 lbs. of quinine powders.

In the Lárkána District 244.5 lbs. of quinine treatments were distributed free and 10 lbs. sold. The prophylactic administration of quinine to school children was carried out in Lárkána and Hyderabad Districts. The reports from Bádin Táluka of Hyderabad District indicate that only 15 per cent. of treated children were attacked by fever against 95 per cent. of untreated children.

There was a general complaint of the inability to obtain sufficient quinine especially in treatment form. The rise in the price of the drug will have serious results on the future health.

In the Presidency the District Local Boards and Municipalities sold in the form of treatments 222 lbs. and 5.5 lbs. in powder: they distributed free 206 lbs. as treatments, 60 lbs. in powder and 12.5 lbs. in pills. The sales were largest in East Khándesh (93 lbs.), Belgaum (30 lbs.), Dhárwár (18 lbs.), Ahmedabad (18 lbs.), and Thána (15 lbs.), while free distribution was greatest in Dhárwár (86 lbs.), Kaira (69 lbs.), and Broach (51 lbs.). In the Post Offices 1,654 lbs. of powders were sold, and represented a fairly even distribution except that sales were low in the Konkan and Belgaum Divisions.

43. In compliance with orders in Government Order, General Department, No. 6007 of 2nd August 1915, attention was drawn by the Deputy Sanitary Commissioner, Sind Registration District, to the existence of borrow pits near 6 villages in Lárkána District and 2 in Karáchi District and to the part they played in causing malaria in those villages. The borrow pits near the villages in Karáchi District have been filled up by the District Local Board.

The Deputy Sanitary Commissioner, Gujarát Registration District, reported that the tank on the Salál-Sonásan-Nánápur Road is a permanent breeding place for mosquitos and a feeder to numerous temporary breeding places: he also advised the prohibition of "Shingodi" cultivation in the tank between Prántij and Kamalpur owing to the provision thereby of innumerable breeding grounds for anopheline mosquitos. Both these tanks are in Prántij Táluka of Ahmedabad District. The Irrigation Department are taking steps to carry out the Deputy Sanitary Commissioner's recommendations.

44. The Deputy Sanitary Commissioners continued the taking of a spleen census, and a map for the Presidency showing the distribution of malaria is a possibility of the near future.

45. In the last annual report mention was made of an outbreak of sand-fly fever, which was investigated by the Acting Deputy Sanitary Commissioner of the Southern Registration District. The disease first appeared in the Navalgund Táluka in Dhárwár District in September 1914, and spread to 36 out of 58 villages in the táluka and attacked about 6,000 persons. Between September 1914 and June 1915 the adjacent tálukas of Dhárwár, Belgaum and Bijápur Districts were infected and over 14,000 attacks were reported. In no case was the result fatal. The breeding places of the sand-fly were found to be

the stone-built pit privies and the drains in connection with bath-rooms. The disease is often attended by severe pains and lassitude, and though not fatal is of importance in its possible effect on labour: the line of prevention is obvious.

PLAGUE.

46. Forty-three thousand eight hundred twenty-four deaths (21,943 males and 21,881 females) were recorded against 20,060 in 1914 and a decennial mean of 46,793.

The annual number of deaths recorded since 1904 is given below :—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1904	23,957	1907	98,609	1910	25,043	1913	25,283
1905	71,363	1908	27,345	1911	100,399	1914	20,060
1906	51,625	1909	24,319	1912	28,984	1915	43,324

Taking the figures from 1907 onwards there is a suggestion of a 4 years cycle; should subsequent experience bear this out there is some comfort in the fact that the epidemic of 1915 was much less severe than in either 1907 or 1911. This possibility must be borne in mind in estimating the value of such preventive measures as were taken.

47. The death-rate was 2.24 against 1.02 in 1914 and a quinquennial mean of 2.05. The disease was widespread in that all collectorates and 209 out of 360 registration circles reported deaths. In 1914 two collectorates escaped and only 189 registration circles were infected. In 1915 the disease was confined to 1,536 towns and villages against 941 in 1914. In a few collectorates only was a really severe epidemic experienced, for instance, in Belgaum, Dhárwár, Sholápur, Sátára and Násik Districts in the Presidency, and in Karáchi and Hyderabad in Sind.

48. In Belgaum District 9,526 deaths were recorded: the death-rate was 10.11 against a quinquennial mean of 5.19. The urban death-rate was 13.59 and the rural 9.82. In ordinary years the death-rate from plague falls steadily in the first half of the year, but in 1915 the fall did not commence till April. The reason for this rise in mortality in the beginning of 1915 has not been ascertained; whatever the cause, this unusual seasonal rise had a marked effect on the subsequent plague history of the year, for it resulted in the late infection of several important villages in Athni and Chikodi Tálukas, and added to the number of villages in which the infection was carried over during the hot months. In May the following towns and villages reported cases:—Athni Town and Jugal in Athni Táluka; Sadalgi, Ankli, Borgaon and Mankápur in Chikodi Táluka; Sankeshvar and Solápur in Hukeri Táluka; Belgaum in Belgaum Táluka; Mouze Nandgad in Khánápur Táluka. Thus, in the northern part of the district the infection during the hot weather was firmly implanted in 3 tálukas (Athni, Chikodi and Hukeri) and in 2 tálukas (Belgaum and Khánápur) in the south. From these centres the infection rapidly spread with the onset of favourable climatic conditions and Gokák Táluka was infected by road from Athni, its neighbour. In the 3 northern tálukas 7,137 deaths were reported out of 9,526 for the whole district and 48 per cent. of villages situated therein were infected. Gokák Táluka, infected directly from Athni, was responsible for 860 deaths, and the tálukas of Khánápur and Belgaum returned 565 and 710 deaths respectively. In the 4 tálukas, in which no carrying over centres existed, there were only 284 deaths.

It is impossible to avoid the conclusion that, if it had been possible completely to stamp out infection during April and May in the towns mentioned above, the plague history of the district would have been altered materially. A temporary Assistant Surgeon was appointed with a staff to carry out rat destruction. Between July and September 648,520 baits were laid in Athni Town, Sankeshvar in Hukeri, Kágwad in Athni, Sadalgi in Chikodi and Belgaum, Gari Gunji and Santibastwad in Belgaum, and 25,027 rats were

destroyed. Four hundred and forty-three thousand five hundred and eighty-nine baits or 68 per cent. of the total were laid in Belgaum Town. The cost of the operations which were not efficiently carried out, excluding the pay of the temporary Assistant Surgeon, came to Rs. 1,203.

The disease was reported from 228 towns and villages, of which 171 were in the 4 northern talukas. Inoculation was carried out in 35 towns and villages. At the height of the epidemic, 2 Assistant Surgeons were appointed, who between them inoculated 5,323. The Medical Officers in charge of dispensaries inoculated 1,072, and 1,557 were inoculated by private medical practitioners and others. Out of 7,952 inoculations, 4,050 were performed in Belgaum and Athni Towns.

49. In Dhárwár District 5,976 deaths were registered: the death-rate being 5·83 against a quinquennial mean of 10·36. The urban death-rate was 4·92 and the rural 5·97. In May the infection was firmly established in 10 villages of 5 talukas—Ránebennur, Kadarmandalgi and Kuppelur of Ránebennur Taluka; Herur and Alur in Hángal Taluka; Chikkabur, Kervádi and Kadur in Kod Taluka; Mallur in Karajgi Taluka; and Tadas in Bankápur Taluka. These talukas returned 5,271 deaths out of the total number registered.

Rat destruction work was carried out by temporary Assistant Surgeon Gokhale at two places only for a limited period. Dhárwár Town was baited for about a month and Hángal for a week in July and August. In Dhárwár 21,844 baits were distributed and 1,666 rats were destroyed. In Hángal 10,870 baits were laid for the destruction of 1,132 rats.

Three hundred and sixteen towns and villages were infected, and in 156 of them inoculation was carried out. Five temporary Assistant Surgeons were appointed, who worked under the Assistant Surgeon whose services have been lent to the Dhárwár Sanitary Association. The total number of inoculations was 30,392, of which 13,715 were done by the special plague staff, 15,732 by Medical Officers in charge of dispensaries, and 704 by private medical practitioners and others.

50. In Sholápur District 7,769 deaths were recorded against 6 in the previous year. Sholápur City was infected in December 1914 and suffered from a fairly severe epidemic during the early months of 1915. From Sholápur the infection was carried between January and May to 16 villages in Sholápur Taluka, to Pandharpur, and to Randweechi in Mádha Taluka. During the hot weather infection was carried over in Sholápur City, and in Dhotri, Musti and Darganhali villages of the taluka, and from these centres the infection spread rapidly from September onwards. During the second half of the year the important epidemiological points are the infection of Bársi Town from Sholápur in September, and the second infection of Pandharpur towards the end of the year. Sholápur, Bársi and Pandharpur served as distributing centres. It may be taken for granted that, had it been possible to prevent the infection of these places, the epidemic in the district would not have occurred. The significance of this statement will be apparent when preventive measures are considered. During the last half of the year 58 out of 302 towns and villages in Sholápur Taluka were newly infected: 77 out of 245 towns and villages in Bársi Taluka, and 11 villages out of 171 in Pandharpur Taluka.

The special plague preventive staff under Major Kunhardt and Dr. Chitre worked in Sholápur District throughout the year. Three inoculators were appointed and performed 219 inoculations in 43 towns and villages. Two hundred and eighty persons were inoculated by Medical Officers in charge of dispensaries and 10,569 by private medical practitioners and others. There was a total of 13,040 inoculations in the district, of which 11,108 were in Sholápur City itself. The special inoculators did not move about the district sufficiently.

51. In Sátára District 3,633 deaths were recorded against 2,033 in the previous year. At the end of 1914 infection persisted in the talukas of Wálwa, Shirála, Koregaon, Tásgaon, Karád, Mán, Khatáv, Khánápur and Wái. It was fairly well spread: it died down rapidly till in May it persisted in Tásgaon and Turchi of Tásgaon Taluka, in Islámpur of Wálwa Taluka, and Shirváde of

Karád Táluka. From June on the infection spread rapidly and 94 towns and villages were infected before the end of the year: of these, 30 were in Wálwa Táluka, 22 in Tásgaon Táluka and 16 in Karád Táluka.

The special plague preventive staff under Major Kunhardt and Dr. Chitre worked in the district throughout the year. Inoculation was practised in 17 towns and villages, and 5,017 persons were inoculated against 4,022 in 1914. Two inoculators were appointed and performed 1,231 inoculations in 12 towns. Ninety-five were done by Sub-Assistant Surgeons and 369 by private medical practitioners and others.

In Sátára City the rat trapping campaign was continued: 38,541 rats were destroyed against 31,413 in 1914. The cost of the operations, excluding the pay of the temporary Assistant Surgeon in charge, came to Rs. 3,144. Two imported cases died in Sátára during February, but there was no epidemic in the city for the second year in succession.

52. In Násik District 7,139 deaths were recorded against 1,118 in 1914. It will be remembered that the district was infected in the latter half of 1914 through Igatpuri, and in December the epidemic was felt in Násik City, in 4 towns of Niphád Táluka, and in Manmád of Chandwad Táluka. Up to March the disease spread, and then died down till in May the infection persisted in 3 towns in Niphád Táluka, 1 in Násik Táluka, 1 in Chandwad, 1 in Dindori and 1 in Sinnar.

From July onwards 151 towns and villages were infected; of these, 47 were in Niphád Táluka, 15 in Chandwad, 14 in Sinnar, 13 in Dindori and 12 in Násik.

Thirty-nine of the remaining 50 villages were in Báglán Táluka, and the important epidemiological factor here was the infection in July of Satána, a town with a population of nearly 4,000.

Two temporary Assistant Surgeons were appointed, one of whom was instructed to carry out rat destruction operations.

Destruction of rats was taken in hand in Násik, Pimpalgaon Baswant, Vadner, Vinchur, Nanduri, Thergaon, Shivádi, Rawalas, Kotháre, Mouze Sukene, One, Páchora Budruk, Velápur and Vadalibhoi. Násik was baited from 28th August to December 1915. Forty-seven thousand five hundred and eighty-two baits were laid but only 1,689 rats were destroyed. The number of rats destroyed in the various towns and villages could have no effect on the course of the disease. The measures were very inefficiently carried out.

Four thousand five hundred and sixty-eight inoculations were carried out in 30 towns and villages. Two thousand one hundred and five persons were inoculated by the special inoculators, 2,406 by Medical Officers in charge of dispensaries and 57 by private medical practitioners and others.

53. In Poona District the epidemic was a great interest. One thousand eight hundred and thirty-eight deaths were recorded against 1,810 in 1914. In the early part of the year Poona City suffered fairly severely, but in June no cases or deaths were reported. In the latter half of the year the disease never really caught hold, although there were several small centres of infection following imported cases. Haveli Táluka, outside Poona City and Cantonment, was practically free from plague during the last half of the year. Junnar Táluka was badly infected during the first half of the year, and the infection was undoubtedly carried over during the off season in the village of Pimpalwandi: during the last half of the year 13 villages of this táluka and 7 of the adjacent Khed Táluka were infected: the total number of villages infected in the district during this period was 36. Ten out of the remaining 16 villages were in Máwal Táluka, and followed the infection of Lonávla. Since the introduction of the hydro-electric works Lonávla has become an important labour centre, with ready opportunity for the importation of infection. Lonávla was re-infected in July and passed through a severe epidemic.

The special plague staff under Major Kunhardt and Dr. Chitre worked in the district throughout the year and the failure of the epidemic to lay hold of Poona City may possibly be due to their efforts. Two temporary Assistant

Surgeons were appointed and inoculated people in 23 towns and villages. Four thousand nine hundred and eighty-six persons were inoculated against 12,269 in the previous year. The temporary staff performed 4,335 inoculations, Medical Officers in charge of dispensaries 298, and private medical practitioners and others 353. Two hundred and thirty-five inoculations were performed in Poona City by private medical practitioners.

54. In Sind 3,135 deaths were registered against 1,531 in 1914. The year opened with a very severe epidemic in Hyderabad City and the infection of Karáchi and Kotri. During the early months of the year every district in Sind reported cases, but the epidemic only persisted in Karáchi, where deaths were reported up to November.

Inoculation was confined practically to Karáchi, Shikárpur and Hyderabad Cities, and reached the total of 9,959. Only 23 inoculations were performed by private medical practitioners. In Hyderabad a temporary Assistant Surgeon was appointed and he performed 1,435 inoculations.

55. One hundred and twenty-eight thousand and eight hundred persons were inoculated as against 62,497 in 1914. There was progress in Native States, 21,392 inoculations being performed against 435 in 1914. In Native States the inoculation was performed by Medical Officers of the States. The number of inoculations performed is as follows:—

		<i>Native States.</i>			
Jamkhandi	6,194	Aundh	... ..	232
Kolhápúr	5,741	Khairpur	... ..	201
Sángli	2,398	Akalkote	... ..	107
Miraj Senior	2,314	Dhar	... ..	76
Savnur	1,079	Mewás	... ..	68
Miraj Junior	825	Dharampur	... ..	68
Mudhol	591	Kurundwad	... ..	65
Vishalgad	444	Rámdurg	... ..	8
Ichalkaranji	438	Káthiáwár Agency	... ..	6
Jath	509			

Nineteen temporary Assistant Surgeons were employed for portions of the year: 5 were employed in Dhárwár District, 2 in Belgaum District, 2 in Bijápúr District, 2 in Násik District, 3 in Sholápur District, 2 in Sátára District, 2 in Poona and 1 in Hyderabad (Sind).

They inoculated 44,213 persons in 285 towns and villages. The total cost of the temporary staff came to Rs. 29,014, and the average cost of each inoculation was 10.5 annas against 15.6 annas in 1914.

At Civil Hospitals and Dispensaries 29,925 persons were inoculated—two thousand two hundred and ninety-four in Násik District, 298 in Poona, 280 in Sholápur, 95 in Sátára, 1,072 in Belgaum, 4,559 in Bijápúr, 15,732 in Dhárwár, 794 in Thána, 121 in Kolába, 1,291 in Ahmednagar, 84 in Ratnágiri, 436 in Kánara, 523 in Surat, 38 in Broach, 57 in Ahmedabad, 9 in Thar and Párkar, 2,108 in Sukkur and 17 in Karáchi.

Three thousand nine hundred and eighty-five inmates of Jails were inoculated, and private medical practitioners in Poona City, Wái and Islámpur in Sátára District; Athni, Belgaum and Ankli in Belgaum District; Bijápúr, Hubli and Herinarti in Dhárwár District inoculated 3,456 individuals. In Bombay City the number of inoculations was 5,921.

Inoculation is still looked on with disfavour by the bulk of the rural population; the fluctuation in the number of inoculations each year depends very largely on the risk of infection run by the inhabitants of large towns. If any towns or villages in their vicinity are infected the numbers of inoculations for that year will be large. The difference in the attitude towards inoculation of rural and urban populations is seen in all districts, and the number of villages in which persons are inoculated is a small percentage of the total infected.

56. One hundred and eighty-eight persons who had been inoculated were attacked by plague, of whom 91 died; in 1914 the corresponding figures were 92 and 40. Detailed information is given in the table:—

District,	Number of inoculation.	Total plague deaths.	Attacks among inoculated.	Deaths among inoculated.
Dhárwár	30,392	5,976	67	26
Bijápur	19,694	969	37	18
Poona	4,986	1,838	21	12
Sholápur	13,040	7,769	17	12
Ahmednagar	1,812	445	13	7
Belgaum	7,952	9,526	11	6
Kánara	436	46	8	2
Násik	4,568	7,179	6	2
Sátára	5,017	3,633	4	4
Sukkur	2,718	374	3	2
Karáchi	5,894	1,429	1	0
			188	91

Sixty-three or nearly 70 per cent. of the fatal cases among inoculated occurred within one month of inoculation.

57. Two facts are brought out by the epidemic of the year :

(a) the danger of villages which are infected late in the preceding epidemic.

(b) the rapid dissemination of infection from large towns which are trade or labour centres.

It seems very clear that the elimination of plague depends on the possibility of stamping out infection wherever it exists during the off season and on the protection of important towns from infection. Into the former the enquiry under the Indian Research Fund is continuing : a small area—Poona District—is under observation for the coming year. It must not be considered that the result of this work up to date has been unsuccessful. The history of the epidemic in Poona District during 1915 is very encouraging.

58. The protection of important towns presents many problems incapable of solution in the immediate future ; among them are the grain trade, weekly markets, fairs and the ever present housing question. In the meantime these towns can be protected by continuous trapping ; this has been proved in the past in the Punjab, and the experience gained there has recently been applied to Sátára in this Presidency. The two secrets of success are continued operations throughout the year, and a sufficiency of traps. Sátára has been free from plague for two years at a cost of about rupee one per inhabited house. The question which inhabitants of important towns in the plague area have to decide is " Is freedom from plague worth the average annual expenditure of rupee one per house."

SMALL-POX.

59. 1,425 deaths were registered as compared with 4,209 in 1914 and a decennial mean of 6,015. 772 deaths were among males and 653 among females.

The annual mortality since 1904 is given below :—

Year.	Number of deaths from Small-pox.	Year.	Number of deaths from Small-pox.
1904	4,239	1910	4,600
1905	16,985	1911	4,727
1906	4,063	1912	6,331
1907	1,862	1913	9,833
1908	2,526	1914	4,209
1909	5,019	1915	1,425
Total	34,744	Total	31,125
Mean	5,791	Mean	5,187

The ratio per 1,000 was 0·07 as compared with 0·21 in 1914 and a quinquennial mean of 0·30.

The highest death-rates were returned from Kánara (0·64), Násik (0·28) and Thána (0·11).

60. Towards the end of the year the town of Málegaon in Násik District was infected, and a death-rate of 6·81 resulted. Small-pox is almost always present in this town, and epidemics are frequent. A certain section of the population consistently refuse vaccination, and the deaths are confined almost without exception to the children belonging to this community: the advent of an epidemic is timed by the collection of sufficient children since the date of the last epidemic. Gokarn Town suffered fairly severely with a death-rate of 0·94; and Poona City and Bombay City returned death-rates of 0·41 and 0·37, respectively.

61. In the Southern Registration District 182 cases in 9 infected villages were investigated, and it was found that 74 had been vaccinated previously and 108 unvaccinated. Of the vaccinated none died, of the unvaccinated 26.

A similar investigation into 288 small-pox cases in other Registration Districts revealed a case mortality of 6·04 among vaccinated against 20·75 among the unvaccinated. Taking the Presidency as a whole the case mortality among vaccinated was 4·3 against 21·9 for unvaccinated.

These figures afford very striking evidence of the protection afforded by vaccination: the contrast would be still more remarkable if the people would accept the principle of revaccination.

RESPIRATORY DISEASES.

62. 63,364 deaths (33,588 males and 29,776 females) were registered as compared with 65,941 in 1914 and a decennial mean of 53,874.

The annual number of deaths registered since 1904 is given in the following table:—

Year.	Number of deaths from Respiratory diseases.	Year.	Number of deaths from Respiratory diseases.
1904	59,579	1910	59,880
1905	54,537	1911	51,470
1906	60,615	1912	70,712
1907	58,068	1913	59,418
1908	54,671	1914	65,941
1909	53,433	1915	63,364
Total	340,903	Total	370,785
Mean	56,818	Mean	61,798

The death-rate per 1,000 of population was 3·23 against 3·37 in 1914 and 3·18 the mean of the previous 5 years.

63. In rural areas the death-rate was 2·58 against one of 6·61 for urban areas. The highest death-rates for urban areas were recorded in Kaira (14·12), Mirpurkhas (13·18), Borsad (12·14), Ahmedabad (11·82), Broach (10·91), Umreth (10·91), Jambusar (10·68), Nadiád (9·98), Surat (9·88), Ahmednagar (9·39), Hubli (9·27), and Bombay City (8·16).

64. In Gujarát Registration District 3,204 deaths from phthisis were recorded giving rise to a death-rate of 1·14 per mille. The urban death-rate was 2·76 against one for rural areas of 0·71.

The principal urban death-rates are given in the following table :—

Town.	Total death-rate.	Male death-rate.	Female death-rate.
Ahmedabad	4.14	3.83	4.52
Dákore	2.95	3.05	2.84
Nadiád	2.65	2.16	3.21
Dhandhuka	2.61	2.89	2.36
Ránder	2.52	1.89	3.53
Broach	2.49	2.08	3.03
Kaira	2.47	2.99	1.88
Dholka	2.43	3.55	1.82
Surat	2.37	1.91	2.86
Virangám	2.31	2.80	1.82

For the whole District the disease was rather more prevalent in males than in females, but the above table shows that in a few towns the female death-rate is higher than the male. 2,187 deaths or nearly 70 per cent. occurred in persons between the ages of 20 and 50.

65. In the Southern Registration District (Belgaum, Dhárwár, Bijápur and Kánara) 1,539 deaths from phthisis were registered against 1,574 in 1914. The death-rate was 0.47. The urban death-rate was 1.22 against one of 0.39 for rural areas.

The highest urban death-rates were recorded in Navalgund (3.69), Gokák (3.55), Gokarn (2.82), Ránebennur (2.2), Belgaum (2.16), Nipáni (1.67), and Gadag-Bettigiri (1.28).

66. In the Central Registration District (Poona, Ahmednagar, Sholápur, Sátára and Rátnagiri) the most serious feature in the history of phthisis is the gradual infection of the Rátnagiri Districts—urban and rural areas—by persons returning from Bombay City. Emigration to Bombay is common, the infected individual returns to the District in the advanced and infectious stage of the disease to die a few weeks after return. A partial investigation has been made by Mr. Da Gama, the acting Deputy Sanitary Commissioner: out of 168 cases examined 50 had come direct from Bombay City. This importation of infection is a serious matter for those districts which supply Bombay with labourers.

67. In Sind 641 deaths from phthisis were recorded, the great majority (518) being from the towns of Hyderabad, Tando Adam, Kotri and Karáchi; the respective death-rates were 4.16, 2.99, 1.65 and 1.33. Of the 518 urban deaths 280 were in females and 238 in males.

68. In the prevention of tuberculosis the provision of hospitals for advance cases, tuberculosis dispensaries and sanatoria in which individuals can be cured or trained in the disposal of infectious expectoration, are undoubtedly wise measures. The experience of Great Britain has shown, however, that such measures, though limiting the spread of infection will not eliminate the disease. The removal of the cause of the disease is required, and the essential cause is the unsatisfactory manner in which the people are housed.

In dealing with phthisis, as with all sanitary problems, it is necessary to remember that there are usually two distinct sides—measures of immediate urgency, in which may be classed the provision of sanatoria, etc., and measures which uproot the cause. The latter owing to financial and other reasons may have to be relegated to the future, but it is of importance, while making provision for the former, to keep them in mind with a view to their ultimate realisation.

INJURIES.

69. There were 8,113 deaths recorded, of which 4,581 were among males and 3,532 among females. The figures for the previous year were 7,670 and the mean of the preceding ten years was 7,125.

The number of deaths registered annually as due to injuries since 1904 is shown below :—

Year.			Number of deaths from injuries.	Year.			Number of deaths from injuries.
1904	...	...	6,333	1910	...	...	6,885
1905	...	...	6,586	1911	...	...	7,452
1906	...	...	6,830	1912	...	...	7,175
1907	...	...	6,799	1913	...	...	7,711
1908	...	...	7,109	1914	...	...	7,670
1909	...	...	7,029	1915	...	...	8,113
Total			41,683	Total			45,006
Mean			6,948	Mean			7,501

70. Deaths by sexes are arranged under the various heads and compared with those in 1914 in the following table :—

Causes.	1915.			1914.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,410	1,746	3,156	1,204	1,744	3,048
Poisoning	87	60	147	108	68	176
Hanging	132	74	206	124	84	208
Wounding	875	434	1,309	780	352	1,132
Wild beasts	37	10	47	24	7	31
Snake-bite	1,104	646	1,750	1,008	527	1,535
Rabies	145	67	212	122	60	182
Railway accidents	78	9	87	65	19	84
Other causes	713	484	1,199	756	518	1,274
	4,581	3,532	8,113	4,299	3,379	7,670

71. There was an increase of 215 in the deaths caused by snake-bite over the previous year's figures. The highest number of deaths occurred in Ratnágiri (271), Thána (178), Sátára (139), Kaira (109), Ahmedabad (105), Lárkána (83), while the lowest (5) was recorded in the City of Bombay.

There is always difficulty in identifying the species of snake responsible for the death and no information is available as to the number of persons bitten who recovered. Some indication as to the class of snake (chiefly) is afforded by a study of the interval elapsing between bite and death.

The following table gives the information for certain districts :—

District.	Number of deaths.	Under 6 hours.	Per cent.
Ratnágiri	87	21	24
Sátára	97	53	54
Sholapur	31	29	93
Ahmednagar	35	23	66
Poona	47	23	62
Belgaum	47	35	74
Dhárwár	36	25	69
Bijápur	26	18	69
Kánara	14	7	50

It is probable that in Ratnágiri District, where over 24 hours elapse between bite and death in 70 per cent. of the cases, the common snake belongs to the viper class. In Belgaum, Dhárwár, Bijápur and Kánara Districts 37 out of 130 deaths were definitely ascribed to the cobra.

In the majority of instances no treatment was adopted: evidence of only three cases being taken to local dispensaries is forthcoming: in three instances Brunton's lancet was used.

72. 212 deaths were reported from rabies. The highest number (28) was reported from Sátára District. Among towns the highest number (10) was returned from Bombay.

73. There were 539 suicidal deaths (271 males and 268 females) against 531 (260 males and 271 females) in 1914.

The highest number of suicides were reported from Thána (65), Bombay City (59), Dhárwár (54) and Bijápur (48). Of the 65 deaths in Thána, 30 were the result of drowning, 33 hanging and 2 wounding; of the 59 deaths in Bombay City, 13 were the result of drowning, 5 hanging, 9 wounding and 32 poisoning; of the 54 deaths in Dhárwár, 24 were the result of drowning, 24 hanging and 6 poisoning; and of the 48 deaths in Bijápur, 21 were due to drowning, 24 hanging and 3 poisoning.

OTHER CAUSES.

74. 138,006 (70,900 males and 67,106 females) deaths were registered as compared with 159,720 in 1914 and the decennial mean 133,877.

The number of deaths registered under this heading since 1904 is as follows:—

Year.	Number of deaths from other causes.	Year.	Number of deaths from other causes.
1904	144,800	1910	149,735
1905	132,666	1911	130,871
1906	142,478	1912	162,143
1907	124,575	1913	133,815
1908	124,275	1914	159,720
1909	128,495	1915	138,006
Total	797,289	Total	874,290
Mean	132,881	Mean	145,715

The death-rate was 7.05 against 8.15 in 1914.

75. In the Southern Registration District 106 deaths were recorded from measles against 1,303 in 1914: 81 were among children under 5. In the Gujarát Registration District 231 deaths were registered; of these 163 were in—Ahmedabad (84), Surat (45) and Broach (34)—towns. In Ahmedabad during November and December there was a fairly serious epidemic associated with broncho-pneumonia.

Out of the 231 deaths 207 were in children under 5.

76. The numbers of deaths from chief diseases occurring in each Collectorate by months are shown in annual Forms Nos. VII to XII.

SECTIONS VII and VIII.—No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

77. One hundred and fifty-seven city and town Municipalities worked in the mofussil during the year, of these 4 Municipalities—Yemnur and Gudguddapur in Dhárwár District and Gokarn and Ulvi in the Kánara Collectorate—were as usual appointed for short periods to deal with the sanitary conditions during seasons of pilgrimage.

Municipal Work.

The combined municipal income amounted to Rs. 1,24,87,579, of which a sum of Rs. 60,67,924 or 48·5 per cent. was expended on "public health and convenience"; an increase of Rs. 4,06,204 over the corresponding expenditure in the previous financial year. On water-supply, drainage and conservancy the expenditure was Rs. 34,43,269 or 27·57 per cent. The details of improvement in water-supplies and drainage are given in Appendix 1. The sanitary Board sanctioned the preparation of 4 new projects; 20 schemes of water-supply and drainage were either completed or made progress, and 56 others were under investigation. Deep borings for water were undertaken in 7 towns and for ascertaining rock foundations in 4 towns.

The extreme variations in climatic conditions must lead to great variations in the quality of waters supplied to towns from rivers, lakes and shallow wells. The object of every public health authority should be the issue of a water of uniform quality: this will not be attainable until by frequent analysis it is possible to ascertain the variations in quality, the reasons for variations and the success of any methods adopted for the purification of the water. The institution of laboratories for the routine examination of waters is an urgent public health requirement: a scheme with this object in view was submitted during the year.

In conservancy methods there is considerable room for improvement everywhere: some progress was made during the year in the disposal of waste matter, but little in the equally vital matter of collection. The Municipality of Surat acted on a personal suggestion to depute the Health Officer to Násik to study the system of night-soil disposal. Dr. Pinto adopted the system and by introducing certain modifications necessitated by local climatic conditions, made it such a success that Surat is now the centre for instruction of Municipal Officers in the Northern Division. Dr. Munsiff, the Deputy Sanitary Commissioner, has taken up the matter very energetically with the result that the system has been or is likely to be adopted in Broach, Dholka, Viramgám, Prántij, Godhra and Bulsár.

Thána Municipality has also commenced work on these lines.

In the Southern Division the chief Officers of Dhárwár, Hubli and Bijápur were met at Násik and the system explained. The local adoption is still under consideration.

The incidence of taxation per head of population decreased from Rs. 2-8-3 to Rs. 2-7-7 and that of income from Rs. 4-3-6 to Rs. 3-13-6.

The individual rate of contribution to the Municipal income varied as usual within wide limits from annas 4·2 in Yankanmardi in Belgaum District to Rs. 10·3 in Karáchi Town.

78. Under the scheme for the appointment of Health Officers and Sanitary Inspectors, a portion of whose salaries is borne by Government, first class Health Officers were employed during the year at Ahmedabad, Surat and Poona; one second class Health Officer at Broach and one temporarily at Pandharpur; and Sanitary Inspectors at Ahmedabad (5), Surat (4), Broach (2), Nadiád (1), Viramgám (1), Lárkána (1), Sukkur (2), Belgaum (1), Gadag-Bettigiri (1), Hubli (3), Bijápur (1), Dhulia (1), Násik (1), Poona (4), Sholápur (2), Ahmednagar (1) and Pandharpur (1).

Health Officers and Sanitary Inspectors.

In addition the Municipalities of Karáchi and Hyderabad in Sind maintained independent Health Officers: but the gentleman employed in Hyderabad has no public health qualification.

At present these Health Officers and Sanitary Inspectors do not submit copies of their reports to Government through the Sanitary Commissioner. An account of their work and the difficulties experienced can only be given as a result of inspections by Deputy Sanitary Commissioners.

In Ahmedabad the improvement in the registration of births noted in a previous portion of the report is a great achievement, and is an index of activity and keenness on the part of the Health Officer.

Dr. Pinto in Surat has already done much in improvement of registration in the training of dais, and in the appointment of lady health visitors.

In Poona there is little progress to report as a result of the appointment of a Health Officer: this may in some measure be due to change in the incumbent, for, the permanent Health Officer accepted a temporary appointment in the Indian Medical Service.

Three changes in the health officership of Broach checked advance: the present holder of the appointment has been bound down for two years and improvement may be expected in the coming year. Pandharpur enjoyed the services of a Health Officer for a short time only.

The chief grievances of Health Officers lie in the lack of control over the public health staff, and the expense of maintaining a conveyance necessary for efficient inspection. Municipal Commissioners and Chief Officers, who must necessarily be the Chief Executive Officers of Municipalities, are empowered to depute control of subordinates, and it would help Health Officers if this power were exercised in the case of those subordinates with whom they must come in intimate contact in the course of their work. The question of conveyance allowance will appeal to the sense of justice and desire for efficiency on the part of Municipal Councillors, for it is only right that the Municipality should defray expenses necessitated by its service, and in a large town efficiency of inspection is only possible in the case of rapid transit between different portions of the town.

79. The 26 District Local Boards and 216 Táluka Local Boards dealt with District and Táluka Local Boards. a population of 18,062,041.

The income during the year ending 31st March 1915 was Rs. 84,74,757 against an expenditure of Rs. 84,42,463. The sum of Rs. 3,86,393, less than 5 per cent. of the income, was spent on water-supplies, drainage and other public health works. The incidence of income per head of population decreased from annas 7 and pies 7 to annas 7 and pies 3, while the incidence of taxation decreased from annas 3·2 to 2·10.

80. Under Government Resolution, General Department, No. 3617, of 1st May 1915, a grant of Rs. 62,000 was made for the improvement of village water-supplies and it was distributed as follows:—

	Rs.		Rs.
Northern Division	... 20,000	Southern Division	... 10,000
Central Division	... 20,000	Sind Division	... 12,000

The allotments were expended in making new tanks and deepening existing tanks; in constructing new wells, and boring operations; repairing old wells and in building water troughs and cisterns.

Owing to the greatly reduced rainfall in certain parts of Guzerát inquiries were made into the possibility of shortage in the water-supplies and the Deputy Sanitary Commissioner circulated instructions for the protection of scanty supplies with a view to warding off cholera during the spring of 1916.

81. Under Government Resolution No. 3965, dated 13th May 1915, the grant of Rs. 7 lakhs made by the Government of India was distributed among the District Local Boards of the Presidency and Sind:—

Government of India grant of 7 lakhs.

	Rs.		Rs.		Rs.		Rs.
Sind Division ...	*1,54,000	Northern Division .	1,82,000	Central Division ...	2,08,000	Southern	1,56,000
Karachi ...	22,000	Ahmedabad ...	33,000	East Khándesh ...	41,100	Division.	
Hyderabad ...	20,000	Kaira ...	36,000	West Khándesh ...	29,200	Belgaum ...	30,000
Sukkur ...	20,000	Panch Maháls ...	25,000	Násik ...	29,000	Dhárwár ...	38,000
Nawábshah ...	20,000	Broach ...	31,000	Ahmednagar ...	29,200	Bijápur ...	29,000
Thar and Párkar ...	20,000	Surat ...	36,000	Poona ...	26,700	Kanara ...	15,000
Lárkána ...	28,000	Thána ...	21,000	Sátára ...	30,000	Kolába ...	19,000
Upper Sind Fron- tier ...	14,000			Sholápur ...	22,800	Ratnágiri ...	25,000

* Balance in reserve with the Commissioner in Sind, Rs. 10,000.

The sums were incorporated in the general revenues and were expended mainly on the improvement of communications ; aid was given to the equipment and maintenance of Medical and Veterinary dispensaries ; to the repair and construction of wells and tanks ; and to the provision of dharmashalas.

As a portion of the money is spent on the repair and construction of wells it may be possible in the future to devote a moiety of similar grants to the eradication of guineaworm by the conversion of step-wells into draw-wells. The distribution of guineaworm has received a great deal of attention during the past 7 or 8 years, and many suggestions for dealing with step-wells have been sent in. A remarkable instance of the benefit given by such a simple measure is furnished by the village of Palus in Sátára District, with a population of about 4,000. In the old days a very large percentage suffered from guineaworm, it is said about 50 or 60 per cent. The favourite source of water was a step-well. Through the foresight of a revenue official the step-well was converted into a draw-well about 20 years ago. Guineaworm has almost disappeared : there are now only 7 cases against as many hundreds in old days. The 7 cases existing now live in two houses (5 in one and 2 in the other), and draw water from a small step-well.

Palus is situated in an area in which guineaworm is very prevalent, and Dr. da Gama, the Acting Deputy Sanitary Commissioner, has made a close enquiry into the conditions existing in 11 towns and villages. The population of these villages is 42,814—21,900 being males and 20,914 females. At the time of the investigation there were 1,606 persons suffering or nearly 4 per cent. The incidence on males was nearly double that on females, and the largest number of sufferers was found among adults between 15 and 40.

The conversion of step-wells into draw-wells will not eradicate all ailments due to impure water, but, if properly done, will do away with guineaworm, and show the inhabitants of the affected areas the value of simple sanitary improvements.

Under the same Government Resolution noted above the sum of Rs. 25,000 was allotted to Sind for the improvement of communications :—Rs. 5,000 were given to Lárkána District ; Rs. 4,000 to Sukkur ; Rs. 3,500 each to Hyderabad and Thar and Párkar ; Rs. 3,000 each to Karáchi, Nawabshah and Upper Sind Frontier.

82. Since 1908 improvement schemes have been completed in the following towns :—

Town Improvement Schemes.

Northern Division.

Ahmedabad.
Broach.
Bándra.
Surat.
Bulsár.

Central Division.

Faizpur.
Bhusával.
Násik.
Ahmednagar.
Poona.
Sholápur.
Pandharpur.

Southern Division.

Belgaum.
Dhárwár.
Hubli.
Alibág.

and Rs. 10,43,882-13-1 have been given by Government towards their execution.

Schemes are in progress in the following towns :—

Northern Division.

Kalyán.

Central Division.

Ahmednagar.
Lhingár.
Panchgani.
Bhusával.

Southern Division.

Bijápur.

and grants totalling Rs. 67,720 have been sanctioned by Government.

83. Out of discretionary grants placed at their disposal the Commissioners of the Northern and Southern Divisions allocated Discretionary grants. Rs. 4,344 and Rs. 3,096 respectively, for sanitary projects, such as pumps for wells, improvements to tanks, boring plant, playing fields for hostels, and grants to Sanitary Committees.

84. Considerable progress has been made in the extension of village sites. Overcrowding in villages.

In Bársi Táluka of the Sholápur District extensions have been effected in 3 villages, and 3 further proposals are under consideration. The principle generally adopted has been exchange of land for that which is acquired instead of making cash payments.

In Bijápur District acquirement and allotment of land has been completed or is in course of completion in 7 villages of Bágalkot, Indi, Sindgi and Muddebihal Tálukas. The Collector has issued orders to all Revenue Officers to investigate and report monthly on any need for extension in the villages visited by them.

In Sátára District 41 acres of Inám land valued at Rs. 3,640 have been acquired for the extension of the village site of Lonand village in Khandála mahál. The owners of the land are being compensated by an annual payment of Rs. 127.

In Kaira District land for extension has been acquired in two villages in the Nadiád Táluka, 4 villages in Borsad Táluka and 2 in A'nand Táluka. Steps are being taken for extension of 3 more village sites—2 in A'nand Táluka and 1 in Borsad Táluka.

In East Khándesh Rs. 10,024 have been taken from 7 villages for the acquirement of land for extension. In Yáwal Táluka the village of Bhalod has paid Rs. 3,805; in Chálisgaon Táluka the villages of Munkhede, Hingone Sim, Chambhurdi, Bhambro Budruk and Tambole Khurd have paid Rs. 2,242, Rs. 1,550, Rs. 1,150, Rs. 1,092, and Rs. 184 respectively; in Bhadgaon peta the village of Valvadi has paid Rs. 690.

In Kolába District proposals for extension of village sites are under consideration.

In Násik District preliminary steps have been taken with regard to 4 villages in Násik, Chándor, Dindori and Málegaon Tálukas.

85. The number of notified areas was 23 exclusive of 6 in the Thána District created to exercise control over building operations.

Notified Areas.

The following statement shows the income and expenditure of these notified areas :—

District.	No.	Names of villages and towns.	Income including opening balance.			Expenditure.			Closing balance.			Remarks.
			Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	
Thána ...	1	Andheri ...	17,959	0	0	14,337	0	0	3,622	0	0	
	2	Borivli ...	8,184	0	0	6,142	0	0	2,042	0	0	
	3	Ghatkuper-Kirol ...	25,798	0	0	7,120	0	0	18,678	0	0	
	4	Malad ...	8,620	0	0	5,051	0	0	3,569	0	0	
	5	Santa Cruz ...	16,763	0	0	5,834	0	0	10,929	0	0	
	6	Vile Padle ...	9,155	0	0	2,709	0	0	6,446	0	0	
	7	Goregaon ...										
	8	Mulund ...										
	9	Eandjoli ...										
	10	Vikhroli ...										
	11	Bhandup ...										
	12	Bhayandar ...										
Broach ...	1	Palej ...	5,413	8	10	2,909	8	2	2,504	0	8	Information not received.
Sholápur ...	1	Madha ...	3,641	14	2	2,261	8	11	1,380	5	3	
East Khándesh ...	2	Karduwadi ...	4,256	5	8	2,205	5	5	2,051	0	3	
	1	Chaliskaon ...	22,473	14	8	16,792	7	9	5,681	6	11	
Násik ...	2	Pachora ...	7,961	7	6	5,943	8	0	2,012	15	6	
	1	Manmad ...										
Bijápur ...	2	Nandgaon ...										
	1	Muddebihal ...	2,693	12	10	881	0	0	1,812	12	10	
Ratnágiri ...	2	Hungund ...	1,456	15	3	1,032	5	0	424	10	3	
	1	Dapoli ...	5,122	1	4	2,484	5	8	2,637	11	8	
Belgaum ...	1	Bail Hongal ...	6,763	0	2	3,240	11	9	3,522	4	5	
	2	Kbanapur ...	1,843	1	10	994	6	0	849	11	10	
Koláta ...	3	Chikodi ...	4,316	10	2	3,629	13	4	686	12	10	
	1	Karjat ...	3,102	8	5	1,187	9	6	1,914	14	11	
Dhárwár ...	1	Hangal ...	1,633	4	3	595	9	9	1,037	10	6	
	2	Hirekerur ...	443	9	4	75	0	0	374	9	4	
Poona ...	1	Dhond ...	731	3	2	333	13	7	397	5	7	

Several of these towns (*i.e.*, all notified areas in Sálsette, Muddebihál and Hungund in Bijápur District, Manmád and Nándgaon in Násik District, Chálisgaon and Páchora in East Khándesh District and Dápoli in Ratnágiri District) were inspected during the year and in some cases detailed reports were forwarded; action on the reports is being taken.

86. Three Sanitary Boards worked during the year in place of 2 in 1914: a Board replaced the Sanitary Committee at A'mod in Broach District with satisfactory results.

87. Excluding the district of Násik for which no information has been received Sanitary Committees were at work in 348 towns and villages.

In the *Southern Division* comprising the districts of Belgaum, Dhárwár, Bijápur, Kolába, Ratnágiri and Kánara there were 62 Sanitary Committees, of these 12 were newly established, *viz.*, 4 in Belgaum District (Konnur, Mamdápur, Wantmuri and Turkewádi), 1 in Bijápur District (Almel) and 7 in Dhárwár District (Unkál, Amargol, Shirguppi, Gajendragad, Tumminatti, Kurtakoti and Dámál).

Belgaum District.—Eighteen Sanitary Committees. The total income was Rs. 14,535-15-1, of which Rs. 5,477-6-4 were made by popular contribution. The expenditure came to Rs. 8,933-13-5½.

Bijápur District.—The total receipts of the 7 Sanitary Committees were Rs. 3,083-15-6 and the expenditure Rs. 3,635-14-10. Of the income, Rs. 1,031-8-11 were raised by popular contribution. It is proposed to replace the Sanitary Committee at Bádámi by a Notified Area Committee.

Kolába District.—Nine Sanitary Committees. The total popular contributions amounted to Rs. 559-10-0 out of the total income of Rs. 1,921-0-7. The expenditure came to Rs. 1,624-7-4. Increase in the number of Committees and the rates of popular contributions is proposed.

Ratnágiri District.—Two Sanitary Committees at Khed and Málwan. The receipts during the year come to Rs. 2,775-7-11, of which Rs. 1,177-14-8 were raised by popular contribution. The expenditure came to Rs. 2,891-13-6.

Dhárwár District.—The receipts of the 26 Sanitary Committees amounted to Rs. 14,365-14-10, of which Rs. 6,588-13-2 were raised by popular contributions. The expenditure and closing balances came to Rs. 13,523-7-8 and Rs. 12,011-14-1 respectively.

In the Sátára, Sholápur, East and West Khándesh, Ahmednagar, Poona and Násik Districts of the *Central Division* 56 Sanitary Committees worked, of these 7 were established during the year: 4 (Bhilawádi, Vasagade, Khánápur and Bagni) in Sátára District; 1 (Neri Budruk) in East Khándesh District; 1 (Natepute) in Sholápur District and 1 (Kánhur) in Ahmednagar District.

Sholápur District.—Three Sanitary Committees of which the receipts, expenditure and closing balances were Rs. 1,404-12-3, Rs. 549-5-0 and Rs. 855-7-3 respectively.

Poona District.—The receipts of four Sanitary Committees during the year came to Rs. 2,096-7-6 towards which Rs. 277-0-10 were raised by popular contribution. The expenditure and the closing balances were Rs. 1,045-5-9 and Rs. 1,051-1-9 respectively. The Sanitary Committee at Dhond was converted into a Notified Area in July 1915 and its closing balance was credited to the Accounts of the Notified Area Committee.

Sátára District.—The receipts of the 14 Sanitary Committees during the year came to Rs. 3,588-14-8, of which Rs. 2,359-13-8 were raised by popular contribution. The expenditure and closing balances were Rs. 4,989-5-11 and Rs. 2,066-10-2 respectively.

West Khándesh District.—Receipts of 9 Sanitary Committees were Rs. 7,510-3-6, of which the inhabitants contributed Rs. 3,065-5-0. Expenditure came to Rs. 8,079-13-8.

East Khândesh District.—Eleven Sanitary Committees. The total receipts amounted to Rs. 18,330-10-5, of which Rs. 7,390-5-0 were raised by popular contributions. The expenditure and closing balances came to Rs. 18,956-13-3 and Rs. 9,953-1-4 respectively.

Ahmednagar District.—The total of the 15 Sanitary Committees amounted to Rs. 8,841, of which Rs. 3,579 were raised by popular contributions. The expenditure and closing balances were Rs. 9,545 and Rs. 5,749 respectively.

In *Northern Division* comprising the districts of Thána, Ahmedabad, Surat, Kaira and Panch Maháls, 71 Sanitary Committees are established, of which 4 were created during the year—2 (Mota and Saribujraj) in Surat District; 1 (Ajarpara) in Kaira District; and 1 (Dábánu) in Thána District.

Thána District.—The income of the 6 Sanitary Committees amounted to Rs. 5,783-10-2, of which Rs. 1,607-3-0 were raised by popular contributions. The expenditure came to Rs. 3,788-15-5.

Ahmedabad District.—The receipts during the year of the 8 Sanitary Committees came to Rs. 7,113, of which Rs. 3,119 were raised by popular contribution. The expenditure was Rs. 5,320 and the closing balance Rs. 4,866.

Surat District.—The inhabitants of the 14 villages in which Sanitary Committees worked raised Rs. 4,820-3-3 towards total receipts during the year of Rs. 10,778-15-0. The expenditure came to Rs. 12,560-14-7.

Kaira District.—The expenditure of the 18 Sanitary Committees came to Rs. 9,638 against receipts during the year of Rs. 10,824-6-5 towards which Rs. 5,120-6-11 were contributed by the inhabitants.

Broach District.—The receipts during the year of the 20 Sanitary Committees came to Rs. 5,218-7-3 towards which the inhabitants raised Rs. 3,522-9-7. The expenditure was Rs. 5,196-2-0 and the closing balance Rs. 10,764-7-6.

Panch Maháls.—Five Sanitary Committees worked throughout the year and expended Rs. 5,878-15-10 out of receipts during the year of Rs. 6,279-3-3 towards which the inhabitants raised a contribution of Rs. 2,605-11-3. Closing balances came to Rs. 3,395-0-6.

One hundred and fifty-nine Sanitary Committees worked in *Sind*: of these 7 were formed during the year: 2 (Chachar and Rajo-Nizamani) in Karáchi District; 4 (Mena, Junaji, Mirokhan and Dadu) in Lárkána District and 1 (Virawale) in Thar and Párkar District.

Karáchi District.—The receipts of the 30 Sanitary Committees during the year came to Rs. 6,695-5-2, of which Rs. 3,770-8-11 were raised by popular contributions. The Annual Government grant-in-aid was supplemented by an additional grant of Rs. 2,560. The expenditure amounted to Rs. 9,025-5-11.

Hyderabad District.—The receipts of the 21 Sanitary Committees came to Rs. 13,571-2-7. The expenditure and closing balances were Rs. 10,041-1-2 and Rs. 8,530-1-5 respectively.

Navábshah District.—The receipts of the 18 Sanitary Committees came to Rs. 13,303-13-1, of which Rs. 4,958-1-7 were raised by popular contributions. The expenditure and closing balances were Rs. 12,212-3-1 and Rs. 7,031-4-0 respectively.

Thar and Párkar District.—The receipts of the 23 Sanitary Committees during the year amounted to Rs. 25,753-13-2 and the expenditure to Rs. 12,646-4-4. The closing balances were Rs. 13,107-8-10.

Sukkur District.—The receipts, expenditure and closing balances of the 17 Sanitary Committees amounted to Rs. 13,730-7-11, Rs. 7,799-10-11 and Rs. 5,930-13-0 respectively.

Lárkána District.—Forty-two Sanitary Committees. The receipts during the year amounted to Rs. 13,254-0-2, of which Rs. 6,110-11-0 were raised by popular contributions. The expenditure came to Rs. 15,498-2-3.

Upper Sind Frontier.—The population of the 8 villages in which Sanitary Committees were established raised Rs. 2,942-12-6 towards total receipts during the year of Rs. 16,022-5-9. The expenditure came to Rs. 5,908-13-0.

The average income of a Sanitary Committee is very small and is swallowed up by the expenditure on lighting, road repairs and a staff for keeping the village clean. Opinions may differ as to the proportion of income that should be spent on each head, but Sanitary Committees should bear in mind that their first duty lies in the cleanliness of the villages and their surroundings: when this has resulted, it will be time to look round for other improvements on which surplus funds can be expended.

From reports of Deputy Sanitary Commissioners and others it is clear that in many places the sanitary condition of the towns and villages has been improved. The chief difficulty in the attainment of uniformity in cleanliness lies in the absence of any one whose duty it is to supervise and direct the work of the scavenging staff. In the absence of funds such supervision must be in the hands of members of committees and the sanitary condition of a village is an index of the interest taken by individual members.

In many villages the improvement is appreciable, for instance in Dondaiche in West Khándesh District the Committee have taken steps to protect the water-supply and to guard the river beds: in several instances step-wells have been blocked up; this improvement is, however, much opposed in some parts of the district.

In Dhárwár District the Sanitary Committee of Chikenur are trying to improve the water-supply and take interest in the cleanliness of the village.

In Bijápur District the Sanitary Committees of Indi and Sindgi have done good work and have drawn up useful programmes for the coming year. The Sanitary Committee of Bágewádi has also done very well: this is one of the few towns in the Presidency where for many years an effort has been made to allocate definite sites for natural purposes: some success has resulted and in the programme for the coming year is the provision of a wall round the site reserved for women. The example of Bágewádi has been copied by the Sanitary Committee of Mangoli.

Ghoda and Manchar Sanitary Committees in Ambegaon peta of the Poona District have succeeded in making their villages clean and their attention has been directed by the Collector to the necessity for the destruction of prickly pear.

88. Associations are working in the districts of Dhárwár, Belgaum, District Sanitary Associations. Bijápur and Broach, and it is probable that one will be started at Surat. Much advice to Sanitary Committees and possibly help in supervision can be given by members of these Associations.

The Commissioner, Southern Division, held a conference on sanitary matters at Belgaum during July: several papers were read and lantern demonstrations were given: both were attended by appreciative audiences.

89. The year passed without the pilgrim centres being responsible for the outbreak of a serious epidemic: the festival at Pilgrim Centres. Gokarn, however, was followed by the occurrence of 48 cases of small-pox in the village of Lichkod of the Ankola Táluka.

The Bombay Pilgrim Committee met during the year and visited the 9 principal places, and 5 important stations concerned with the railway traffic.

The Acting Deputy Sanitary Commissioner was present at Pandharpur during the Ashadi festival, and it was largely due to his efforts that the sanitary conditions showed such marked improvement.

The Tavra Kadod fair, last held in 1888, took place in Broach District this year. The fair lasted over a period of 5 weeks. Dr. Munsiff, the Deputy Sanitary Commissioner, gave personal attention to the sanitary arrangements.

No epidemic disease resulted. Nearly 60,000 pilgrims arrived, some from places so distant as Násik, Pandharpur and Cawnpore.

At Alandi and Bhima Shankar, the sanitary arrangements for pilgrims made under the direction and through the zeal of Mr. J. Rodgers, the District Deputy Collector, were excellent.

SECTION X.

90. The Deputy Sanitary Commissioners visited 611 towns and villages. Complete sanitary surveys were made of those towns which had not been visited for several years. They entered remarks in 32 village sanitary inspection books, while Inspectors of Sanitation and Vaccination wrote in 241 books. Special visits were made to enquire into epidemics, and notice is directed to the investigation into sand-fly fever in Navalgund Taluka, and into malaria in Hubli by Dr. D'Mello, and into plague in Sholapur District by Dr. A. da Gama.

At the Belgaum Vaccine Institute much useful work was done on the possibility of cultivating the vaccine virus in the testicular tissue of rabbits, and into the possibility of producing a bacterially pure calf vaccine by the preliminary use of bacterial vaccines.

Dr. Mhaskar worked at the malaria investigation of Kánara District up to August. His report is a valuable one and will be submitted to Government in due course.

Captain Morison continued his investigations into the association of the water-supply with the annual epidemics of dysentery and diarrhoea in Poona. He has put the clarification of water by alum on a sound scientific basis, and by instituting the sterilization with chlorine of the Poona Cantonment and City water-supplies has been responsible for a great reduction in sickness and in the death-rate, especially of young children.

During the year the following changes have occurred among the officers of the Department.

Colonel Anderson, I. M. S. (retired), returned to take over the appointment of Deputy Sanitary Commissioner, Western Registration District.

Dr. R. D. Dalal, Deputy Sanitary Commissioner, Southern Registration District, went on special leave, and Dr. D'Mello was appointed to act in his place.

The Sanitary Commissioner was a member of the Pilgrim Committee and in addition visited over 50 towns for various purposes, such as the water-supply, selection of sites for schools, plague, and general sanitary advice.

F. H. G. HUTCHINSON, M.B., C.M., D.P.H.,

Major, I.M.S.,

Sanitary Commissioner.

Poona, 3rd July 1916.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD, BOMBAY
PRESIDENCY, FOR THE YEAR 1915.

During the year under report there was no change in the constitution of the Board.

Three meetings of the Board were held to consider water-supply and drainage schemes and the following important questions were dealt with :—

- 1) The report submitted by the Sanitary Commissioner for the Government of Bombay on the results of his experiments in connection with the experimental Sewage Installation.
- (2) The pollution of canal water used for drinking and the means available for preventing such pollution.
- (3) Appointment of a Consulting Engineering Chemist.
- (4) Note on the examination of waters by the Sanitary Commissioner for the Government of Bombay.
- (5) Question regarding the appointment of district health officers.
- (6) Valuation of water works and sewerage installations.
- (7) Appointment of a salaried secretary.
- (8) Procedure to be adopted in connection with the preparation of sanitary schemes.

During the year the following grants were distributed to local bodies for minor sanitary works from the grant placed at the disposal of the Board :—

				Rs.
Central Division	...	...	...	1,960
Southern Division	...	...	...	9,830
			Total	11,790

The Board sanctioned the preparation of the following projects :—

- (1) Chálisgaon water-supply.
- (2) Shikárpur water-supply.
- (3) Shikárpur drainage.
- (4) Sukkur drainage.

2. The projects sanctioned by Government were as follows :—

				Rs.
(1) Mátherán water-supply 1st stage	...	...	...	1,90,408
(2) Pen water works	...	...	...	17,715
(3) Water-supply at Násik-Sanction to plans and estimates in connection with	...	...	...	14,244
(4) Álandi water-supply	...	...	...	1,34,760
(5) Purification works for the Central Distillery at Khánápur	...	...	...	33,574
(6) Nandurbár water-supply	...	...	...	2,48,836
(7) Installation of Paterson Filter Plant at the Poona Cantonment water works...	...	...	...	1,73,133
(8) " V " Shaped drain in extension of the existing Poona Cantonment drain	...	...	...	12,176
(9) Revised plans and estimates for the extension of the Ahmedabad water works ...	...	...	...	11,94,499
(10) Improvements to Sukkur water-supply ...	...	...	...	4,36,256

3. Government were pleased to grant during the year a sum of Rs. 7,81,329 as grant-in-aid for Sanitary Works amongst the various Municipalities in the Bombay Presidency, the principal grants being as follows :—

				Rs.
Ahmedabad water-supply	...	...	...	2,75,000
Álandi water-supply	...	...	...	1,34,760
Lonávla water-supply	...	...	...	56,000
Sávda Municipality—Sanitary Improvements (Loan)	...	...	...	20,000

4. The following project was submitted to Government for sanction :—

	Rs.
Ahmednagar Sewerage	8,72,050

5. The following water-supply works were either in progress or completed during the year :—

Sind.

Karachi.—Two pumping plants were installed and one mile in length of masonry conduit completed. Expenditure Rs. 1,09,476.

Hyderabad Sind Improvements.—The work, with the exception of the roofing of Shahakadam Tank and high service reservoir, was completed and handed over to the Municipality. Expenditure Rs. 38,567.

Sukkur.—Project for improvements to water works amounting to Rs. 4,20,222 was sanctioned by Government and its construction is held over pending provision of funds.

Jacobabad.—Municipal Tank rebuilt at a cost of Rs. 4,246.

Northern Division.

Ahmedabad.—Project for improvements to water works amounting to Rs. 11,94,499 was sanctioned by Government and the works in connection with jack well, manholes, fixing of Venturi Meter and pipe laying (5,742 feet) were completed. Expenditure Rs. 1,33,042.

Surat.—The work of fixing a Venturi Meter at Head Works was nearly completed and a water testing apparatus and Workshop erected. Expenditure Rs. 5,701.

Central Division.

Poona City.—Six thousand feet of new mains for High Level Service were laid and subsidiary water mains in connection with the two 21" mains completed. Expenditure Rs. 10,613. During the monsoon season and until the close of the year the supply to the Poona City Settling Tanks was treated with chloride of lime. The cost of this treatment for the year amounted to Rs. 1,321.

Poona Cantonment.—Sterilization of water by means of chloride of lime was carried on at a cost of Rs. 2,250. The raw water was also chemically treated with alum at a cost of Rs. 8,080.

Londwla.—Works in connection with the masonry dam and gravitation main were completed and the construction of the service cistern was in progress. Expenditure Rs. 1,31,229.

Barsi.—Construction of service reservoir was completed and materials for laying gravitation main collected. Expenditure Rs. 2,33,930.

Sholapur.—All the works that were in progress last year, such as, erection of engine and boiler suction, relaying gravitation mains were completed, with the exception of the workshop for which machine tools have been purchased but no building provided. Expenditure Rs. 1,56,466.

Ahmednagar.—Works in connection with the earthen dam, valve tower, waste weir and service reservoir were completed. Expenditure Rs. 1,01,744.

Karad.—Works in connection with intake pipe, tunnels, settling tanks, filter beds and pure water tank were completed. The pumping machinery has been delayed on account of the war but delivery is expected shortly. Expenditure Rs. 54,077.

Satdra Camp.—Resetting of valves, etc., and special repairs to service reservoirs were carried out at a cost of Rs. 4,791.

Southern Division.

Bijapur.—Miscellaneous works, such as laying of branch mains, erecting new stand posts, &c., were completed. Expenditure Rs. 8,853.

Hubli.—Chaukidars' quarters near high service reservoir were constructed and modifications in distribution system carried out. Expenditure Rs. 4,671.

Rajapur.—Miscellaneous works such as taking out, cleaning and relaying the pipes and other repairs were carried out at a cost of Rs. 5,485.

6. The following drainage works were either in progress or completed during the year:—

Sind.

Karachi.—4.28 miles of gravitating sewers were laid in Civil Lines and Frere Town. Expenditure Rs. 90,990.

Northern Division.

Ahmedabad.—New boiler and feed pump installed and repairs to machinery were carried out. Expenditure Rs. 57,505.

Central Division.

Poona Drainage.—About 10,860 feet of branch sewers were laid, and 870 manholes, 42 flushing tanks and 15 ventilating shafts were constructed. About 4,000 house connections were made. The work of constructing percolating filters and sludge well was completed. Expenditure Rs. 1,35,629.

The question of the distribution of the effluent from the Poona City Sewerage Purification works has been referred by Government to a Special Committee.

7. An estimate amounting to Rs. 1,87,922 for the installation of a Paterson Filter Plant at the Poona Cantonment Pumping Station was sanctioned by Government. The work is under construction and good progress has been made towards completion.

8. Fifty-six projects were under investigation by the Sanitary Engineer to Government (27 by the Executive Engineer, Southern Sanitary District, 24 by the Executive Engineer, Northern Sanitary District, and 5 by the Sub-Divisional Officer, Sind Sanitary Sub-Division). Those nearing completion are:—

- (1) Uran water supply.
- (2) Improvements to Sātāra water-supply.
- (3) Islāmpur water-supply.
- (4) Nipāni water-supply.
- (5) Thāna water-supply.
- (6) Borsad water-supply.
- (7) Dholka water-supply.
- (8) Godhra water-supply.
- (9) Hyderabad (Sind) Improvements to water-supply.

Projects completed in the rough.

- (1) Surat Sewerage.
- (2) Hyderabad (Sind) Sewerage.
- (3) Combined scheme for Belgaum City and Cantonment water-supply.

9. Borings for artesian water supplies were in progress at the following places:—

	Depth reached.
(1) Broach ... ..	... 1,535 feet
(2) Nadiād ... ..	... 932 "
(3) Dholera ... ..	... 610 "
(4) Gogha ... ..	... 445 "
(5) Khārāghoda 3rd bore	... 317 "
(6) Khandāla (Sātāra District)	... 100 "
(7) Viramgaum ... ..	... 190 "

The water met with in the Nadiād and Khārāghoda bores was passed as potable.

Borings for ascertaining rock foundations in connection with water-supply schemes were in progress at the following places:—

- (1) Godhra.
- (2) Kapadvanj.
- (3) Jalgaon.
- (4) Pārola.

10. The services of the Analyst to the Sanitary Board were lent during the whole year to the Sanitary Commissioner for the Government of Bombay in connection with the special research work on the Poona waters.

11. The Mechanical Engineer to Government gave advice to the Executive Engineers concerned in designing suitable machinery for water-supply and drainage schemes. The pumping plants in charge of local bodies were thoroughly inspected by him during the year.

12. The Sanitary Engineer to Government carried out his annual tour throughout the Presidency including Sind and gave advice to the Local Bodies generally.

H. O. B. SHOUBRIDGE, M. Inst. C. E.,

Secretary, Sanitary Board,
Bombay Presidency

APPENDIX II (a).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY
FOR THE YEAR ENDING 31st DECEMBER 1915.

I.—SUMMARY.

The following summary shows the inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1915.

950 vessels of all sorts with 203,880 crew and passengers were examined as against 1,099 vessels with 309,121 crew and passengers during the preceding year.

The clothing, bedding and other articles of 61,420 members of crews and passengers of outgoing and incoming vessels and of members of crews of vessels lying in the Port were disinfected. Of these 49,530 were Asiatic and African members of crews, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India and 11,890 were members of crews, passengers and pilgrims who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while lying in the Port. In addition to the abovementioned numbers 4,922 baggage coolies and stevedores' men were disinfected in order to enable certain vessels to work cargo for a few hours after medical inspection and disinfection of their crews and passengers.

36 vessels on which cases of infectious diseases had occurred were disinfected and 4 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats, cockroaches, etc., by means of sulphur dioxide gas generated in a Clayton apparatus. Besides the outgoing pilgrimships 9 incoming vessels (including 2 pilgrimships), 44 outgoing vessels were also fumigated. 1,621 persons among whom cases of small-pox had occurred were vaccinated. In addition to this number 2,308 outgoing pilgrims were vaccinated by a special vaccinating staff lent by the Municipality under the direction of the Police Commissioner.

II.—OUTGOING VESSELS.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P, dated 14th June 1899, and No. 2671-P, dated 2nd October 1912, which were superseded by Government Notification, General Department, No. 5331, dated the 6th July 1915, the medical examination of all vessels, crews and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers and of all Asiatic and African servants who sailed on such vessels (with the exception referred to in para. 4 below) were carried out immediately before they left the Port of Bombay.

3. 791 outward bound vessels (including Asiatic sailing craft) with 78,479 crew and 84,246 passengers or a total of 162,725 persons were inspected as against 913 vessels with 88,495 crew and 167,415 passengers or a total of 255,910 persons during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 34,183 Asiatic and African members of crews and of 15,134 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 213 members of crews who sailed in Asiatic sailing craft for ports out of India were also disinfected.

5. A few vessels had cases of infectious diseases among their crews and passengers within 12 days prior to their departure from this port. The Bills of Health granted to these mentioned the diseases which had occurred on-board as well as the measures which had been taken before their departure for the prevention of the spread of infection on board or its introduction at other ports.

III.—INCOMING VESSELS.

6. In accordance with the rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide* Notification, General Department (Plague), No. 1645-P, dated the 12th March 1900, Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P, dated the 31st March 1900, which were superseded by Government Notification, General Department, No. 5331, dated the 6th July 1915, medical

inspection and disinfection of vessels which were actually infected or suspected to be infected were carried out. All pilgrimships and all vessels which arrived from East African Ports were also inspected on arrival.

7. 146 incoming vessels of various kinds with crews aggregating 13,890 persons and 26,601 passengers were thus inspected during the year. Of the 146 vessels inspected 21 were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. Four were vessels from East African Ports with 475 crew and 1,300 passengers, among whom 21 cases of jigger had occurred. The cases were removed to the Jamsetji Jijibhoy and Arthur Road Hospitals for treatment. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crew were also disinfected. One was a vessel from Jeddah with 111 crew and 1,296 pilgrims among whom 1 case of small-pox had occurred. The small-pox patient was removed on arrival here to the Arthur Road Hospital for treatment. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. The vessel was disinfected the bedding and effects of crew being separately disinfected. The remaining 14 vessels arrived from other ports with 2,509 crew and 3,079 passengers among whom 2 cases of small-pox, 21 cases of measles and 8 cases of chicken-pox had occurred. The vessels and the clothing and bedding of the crews and passengers were disinfected.

IV.—INFECTIOUS DISEASES ON VESSELS ARRIVING AND DEPARTING AND IN THE HARBOUR AND DOCKS.

8. Tabular Statement No. 1 gives the number of cases of infectious diseases which occurred on vessels arriving, departing and in the harbour.

It will be seen that 83 cases occurred on vessels arriving as follows:—3 cases of small-pox 52 cases of measles, 7 cases of chicken-pox and 21 cases of jigger.

At the inspections of crews and passengers of outgoing vessels three cases of small-pox were detected. One case of chicken-pox which was found in a convalescent stage among onward bound passengers was allowed to continue his voyage. Five cases of small-pox and one case of scarlatina were reported to have been landed at Aden from certain ships which arrived there from Bombay.

1 case of plague, 12 cases of cholera, 13 cases of small-pox, and 8 cases of chicken-pox occurred on vessels including Asiatic sailing craft lying in the harbour and docks.

9. Tabular Statement No. 2 gives separately details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of these vessels aggregating 664 persons were disinfected. All these vessels were thoroughly disinfected. The vessel on which a plague case had occurred was also thoroughly fumigated.

V.—DISINFECTION AND FUMIGATION OF SHIPS.

10. During the year under report 93 vessels of all sorts were disinfected and fumigated.

11. Of the 93 vessels referred to in the foregoing paragraph the fumigation of 57 vessels including 4 outward and 2 inward pilgrim ships was carried out by means of the Clayton process under the direction of the Port Health Officer. 657 dead rats and innumerable cockroaches were found on these vessels after fumigation. In addition to this number the British India Steam Navigation Company had 19 of their vessels and 2 outside steamers fumigated by their own apparatus under the supervision of the Port Health Staff. This number is not included in Tabular Statement No. 1.

12. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection. 527 bundles containing such clothing and bedding were disinfected as against 626 during the previous year. 1,875 blankets were also disinfected during the year at the request of the Senior Marine Transport Officer, Bombay. 4,922 baggage coolies to work cargo on outward bound vessels after obtaining Bills of Health were disinfected at the request of their Commanders and Agents.

VI.—GENERAL HEALTH OF THE SHIPPING.

13. During the year under report 1,168 persons connected with the shipping were admitted into the various hospitals in the city. The St. George's Hospital admitted 410 European patients, of whom 10 died, 384 were discharged cured and 16 remained under treatment after the 31st December 1915. The Jamsetji Jijibhoy Hospital admitted 245 Asiatic patients, of whom 15 died; the Gokuldas Tejpal Hospital 427 Asiatics of whom 59 died; and the Arthur Road Hospital 88 Asiatics, of whom 7 died and 79 were discharged cured.

14. No deaths occurred in connection with the cleansing of bilges of ships during the year. There were 252 minor accidents on board of vessels which were lying in the harbour or docks.

VII.—RED SEA PILGRIM TRAFFIC.

A.—Outward Pilgrim Traffic.

15. In accordance with the Government of India's Notification, Home Department (Sanitary), No. 1606, dated the 13th July 1908, and Government Resolution, General Department, No. 4361, dated the 18th August 1909, and Government of India's Notification, Department of Education (Sanitary), No. 635, dated Simla, the 24th April 1912, reproduced in Bombay Government Notification, General Department, No. 2759, dated 30th April 1912, the Port of Bombay was open for the embarkation of Mubammadans going on pilgrimage to Mecca *via* Jeddah. Before the pilgrims embarked at Bombay the ships were thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

16. The names of the ships, the numbers of pilgrims carried by them and the dates on which they left Bombay for Jeddah are given below :—

Name of Vessel.	No. of pilgrims sailed.	Date of Departure.
1. S.S. "Jehangir" ...	372 ...	26th August 1915.
2. S.S. "Hejaz" ...	669 ...	8th September 1915.
3. S.S. "Akbar" ...	768 ...	18th do.
4. S.S. "Sardar" ...	623 ...	1st October 1915.
	<u>2,432</u>	

17. It will be seen that 2,432 pilgrims left during the season as against 11,922 in the previous year.

18. The classification of the pilgrims is as follows :—

14 Bombay City.	1 Mauritius.
67 Bombay Presidency (including Sind).	13 Chinese Territory.
47 Madras Presidency and Malabar.	172 Afghanistan.
95 Bengal Presidency.	2 Baluchistan.
1,496 Eastern Bengal and Assam.	8 Persia.
90 United Provinces and Oudh.	92 Russian Territory.
208 Punjab and North-West Frontier.	{ 19 Arabia.
5 Central Provinces.	{ 24 Java.
2 Ceylon (British Colony).	2 Nepal State.
63 Native States.	1 Straits Settlements.
	11 Unclassified.
<u>2,087</u>	<u>345</u>

Total ... 2,432

19. 2,308 outgoing pilgrims were vaccinated before starting by a special staff placed under the Police Commissioner by the Municipality. Besides these, some pilgrims from other Provinces and Native States had been vaccinated before leaving their homes for Bombay. It is thus probable that nearly all the pilgrims had been persuaded to voluntarily undergo vaccination and, considering that most of these were illiterate and many fanatical, it reflects the greatest credit on the Pilgrim Department under the Commissioner of Police and others who aided in persuading so large a percentage to avail themselves of the measure.

20. The pilgrim Observation Camp at Perim was not opened during the year 1915 as per Government Order, General Department, No. 6923, dated 6th September 1915, and No. 8785, dated 15th November 1915.

21. From the medical diaries of the doctors in medical charge of pilgrim ships it appears that there were 4 deaths on board these ships between Bombay and Jeddah. The causes were old age, dysentery and heart disease.

22. During the season under report no doctor was appointed to the medical charge of a pilgrim ship unless he was in possession of either a degree, or at least the license of a recognized Indian University, or the qualification of a Military Assistant Surgeon and had his name and qualifications registered in the United Kingdom or in India in accordance with the Government of India Notification, Department of Education (Sanitary), No. 14, dated the 7th January 1915.

B.—Inward Pilgrim Traffic.

23. During the year under report, 4,093 pilgrims, including a number who left Bombay in the previous year's Haj, arrived from Jeddah in 8 vessels. The names of the ships and the number of pilgrims brought by each vessel as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay are tabulated in Statement No. 3 which is appended to this report.

24. The total number of deaths which occurred at sea among the returning pilgrims was 38. The chief causes were old age, general debility, dysentery, diarrhoea and bronchitis.

25. One pilgrim ship had during her voyage from Jeddah to Bombay 1 case of small-pox. The patient was removed to the Arthur Road Hospital on arrival at Bombay. 1,296 pilgrims among whom the case occurred had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 111 members of the crew of the infected ship were also disinfected.

VIII.—SANITARY STATE OF THE HARBOUR AND FORESHORE.

26. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

IX.—CHOLERA, SMALL-POX AND PLAGUE IN THE CITY OF BOMBAY.

27. During the year under report 16 deaths from cholera, 359 deaths from small-pox and 599 deaths from plague occurred in the City of Bombay as against 221 from cholera, 252 from small-pox and 2,941 for plague during the preceeding year.

I.—ESTABLISHMENT.

28. The undersigned was in charge of the Port Health Department during the year under report.

29. The following list shows the names of the Medical Officers and subordinates and of the members of the Sanitary Police and clerical staffs who did duty under the Port Health Officer during the year:—

Names.	Period of Service.
<i>(1) Medical Staff.</i>	
	Y. m. d.
Dr. (Miss) S. Smith	1 0 0
Sub-Assistant Surgeon B. M. Bhatt	1 0 0
Do. do. F. H. Anklesaria	1 0 0
Do. do. Z. M. Sheikh	1 0 0
<i>(2) Sanitary Police Staff.</i>	
Mr. A Dixon, Inspector	1 0 0
„ W. R. Marshall, Sergeant	0 3 15
„ G. Beldon, Sergeant	0 8 15
„ H. G. Lewis, Sergeant (for Pilgrim Season)	0 1 12
<i>(3) Clerical Staff.</i>	
Mr. Ramrao G. Kamalakar, Head Clerk	1 0 0
„ Shamrao S. Dhurandhar, Second Clerk	1 0 0
„ Dattatraya V. Gokhale, Third Clerk	0 11 0
„ Dattatraya N. Ratanjankar, Acting Third Clerk.	0 1 0

30. In addition to the abovementioned Medical Staff the services of a Commissioned Medical Officer had to be engaged on several occasions when work was heavy, particularly in connection with the simultaneous departures of numbers of troop-ships. An extra Lady Doctor had also to be engaged from time to time.

31. The Medical, Sanitary Police and Clerical Staffs and the members of the Launch Disinfection and Menial Establishments carried out their respective duties with energy and zeal and to my entire satisfaction.

32. Monvi Abdulla Ahmed, the Protector of Pilgrims, Mrs. M. Lennon, the Lady Superintendent of Pilgrims, Mr. H. M. Robottom, the Inspector of the Preventive Service, and the Dock Police under Superintendent C. Priestley rendered much help to the Port Health Staff, while carrying out the inspection and disinfection of pilgrims and in connection with their despatch from the Disinfection Station to the steamers by which they travelled.

33. I am also indebted for valuable assistance in the embarkation of pilgrims and otherwise to Mr. A. R. Bennett, Assistant Collector of Customs, who gave much of his time in order to help in securing harmonious working between the different departments concerned.

34. The shipping agents and commanders of vessels, as a rule, observed the regulations and carried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

W. E. JENNINGS, M.D., D.P.H.,

Bombay, Port Health Office:
Town Customs House, dated 6th March 1916.

Lieut.-Colonel, I.M.S.,
Health Officer of the Port.

TABLE No. 1.

The following tabular statement gives a summary of the shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1915 :—

Vessels including country craft.	Number of vessels inspected.	Number of persons inspected including crew of vessels.	Number of Asiatic crew and 3rd class or dock passengers dis-infected.	Number of vessels.		Number of persons vaccinated.	Diseases and number of each case.							
				Dis-infected.	Fumi-gated.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Scarlatina.	
1915.														
Entered	146	40,491	11,226	21*	9	1,621	...	...	3	52	7	21	...
Left	701	162,725	49,530	2	48		8	1
In harbour during the year ...	13	664	664	13	...		2,308	1	12	13	...	8
Total ...	950	203,880	61,420	36	57	3,929	1	12	24	52	15	21	1	
Total for 1914 ...	1,099	309,121	80,658	39	68	9,255	6	9	74	9	5	...	4	

* Two of these vessels sailed shortly after arrival for ports out of India.

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native sailing craft which became infected while lying in the Port of Bombay during the year 1915 :—

Months.	Number of persons who were attacked with infectious disease at the Bunders and Docks.		Total number of infected vessels.	Total number of infectious diseases in the Bombay Harbour.					Number of crew dis-infected.
	Plague.	Cholera.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1915.									
January	2	...	...	1	...	7	124
February	1	...	...	1	...	...	143
March	12	6	...	...	8	...	1	326
April	2	...	...	2	...	...	...
May	1	1	...	...	...	...	...
June	1	...	...	1	...	...	71
July
August
September
October
November
December
Total	12	13	1	...	13	...	8	664
Total for 1914 ...	1	...	13	3	9	4	4	...	651

TABLE No. 3.

Statement showing the number of pilgrims who returned to Bombay from Mecca by vessels during the year 1915.

No.	Name of Ship.	Date of arrival, 1915.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.	Number of cases of infectious diseases on board during voyage.		Remarks.
						On arrival.	During voyage.	
1	S.S. "Islami"	2nd January	74	568	4	1 case of small-pox landed at Bombay.
2	S.S. "Bahrein"	4th do.	86	583	8	...	...
3	S.S. "Akbar"	30th do.	111	1,290	18	1	...	
4	S.S. "Lawoe"	16th February	84	134	1	...	...
5	S.S. "Koweit"	2nd March	90	101	1	...	...
6	S.S. "Koweit"	16th November	103	650	4	...	...
7	S.S. "Sardar"	18th do.	81	371	1	...	...
8	S.S. "Jehangir"	3rd December	134	392	1	...	...
			763	4,093	38	1	...	

APPENDIX II (b).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF
KARACHI FOR THE YEAR ENDING 31ST DECEMBER 1915.

I.—OUTGOING VESSELS.

During the year under report 423 steam vessels outward bound for Ports out of India were inspected by the Health Officer of the Port and were given Bills of Health as against 432 during the preceding year.

Of this number 189 vessels were proceeding to Aden, the Red Sea and Europe, and 234 to other Ports out of India including the Persian Gulf.

Bills of Health were also given after inspection to 462 country boats, as against 289 during the preceding year.

The native crews and deck passengers of all steamers and country craft proceeding to Ports out of India were medically inspected, their boxes scrubbed and finally rinsed out with a solution of perchloride of mercury, and their bedding and clothing disinfected by steam in the Equifex Stoves at the Port Health Disinfection Station, Kiamari, immediately before their departure from the Port of Karachi.

II.—INCOMING VESSELS.

Nineteen steam vessels were inspected for the existence of infectious disease, as against fifty-three during the preceding year.

Of these 19 steamers, 1 steamer arrived from East Africa, and the remainder hailed from various other ports.

No country boats arrived from East African Ports during the year under report.

III.—SYNOPSIS OF INSPECTION AND DISINFECTION PERFORMED.

The following tabular statement shows the number of vessels, crews and passengers inspected during the year under report:—

	Vessels.			Crews and passengers.		
	Steamers.	Country boats.	Total.	Steamers.	Country boats.	Total.
Incoming	19	...	19	7,302	...	7,302
Outgoing	423	462	885	102,231	6,433	108,664
				Total ...		115,966

Of the 115,966 crews and passengers who were medically inspected on their arrival at, or departure from, the Port of Karachi, 44,631 crews and passengers also had their bedding and clothing disinfected. The corresponding figures for last year were 125,275 and 45,908, respectively.

IV.—MISCELLANEOUS DISINFECTION.

On several occasions during the year the clothing and bedding of patients suffering from infectious disease as well as the clothing and bedding of "contacts" were received for disinfection from the Epidemic Diseases Hospital, the Civil Hospital, and other Institutions in Karachi, also from private individuals, and were duly disinfected by steam in the "Equifex Stoves" at the Port Health Disinfection Station, Kiamari.

V.—P. & O. MAIL PASSENGERS.

Three hundred and three Saloon passengers proceeding to Europe *via* Bombay were medically inspected on shore at Karachi and given passes for direct transhipment to the P. & O. Mail Steamers at Bombay. The corresponding figure for last year was two hundred and twenty.

VI.—PLAGUE.

No cases of this disease were detected during the year.

VII.—CHOLERA.

No cases of this disease were detected during the year.

VIII.—SMALL-POX.

Two cases of small-pox were removed from incoming vessels to the Epidemic Diseases Hospital, *viz.*, one from the S. S. "City of Paris" on the 19th March 1915, and the other from the S. S. "Neyara" on the 30th April 1915. The usual precautionary measures were carried out on board the steamers concerned on their arrival, and the crews of both these steamers were re-vaccinated before their departure from the Port of Karachi.

IX.—CHICKEN-POX.

One case was removed to the Epidemic Diseases Hospital from the S. S. "Nordfarer" on the 25th March 1915, and the fore-castle occupied by the patient (an Indian fireman), as well as the clothing, bedding and boxes of the crew were duly disinfected.

X.—MEASLES.

One case occurred on board the S. S. "Akbar" lying in the harbour; the patient (a Tally Clerk) was removed to the Epidemic Diseases Hospital for treatment, and the usual precautionary measures (redisinfection, etc.) were duly carried out.

XI.—PAROTITIS (MUMPS).

During the year seven cases of Mumps (all of which occurred among Indian firemen) were removed for treatment to the Civil Hospital from the undermentioned hired transports, *viz.*, two from the "Egra," three from the "Basian," and two from the "Erinpura." The fore-castles, as well as the clothing, bedding and boxes of the crews of all these transports were thoroughly disinfected before re-embarkation of troops.

XII.—JIGGER.

No cases of this disease were detected during the year.

XIII.—SLEEPING SICKNESS.

No cases of this disease were detected.

XIV.—TYPHUS FEVER.

No cases of this disease were detected during the year.

XV.—CASES OF OTHER DISEASES DETECTED.

During the year under report ten cases of illness, of all sorts (*viz.*, malaria, enteric fever, pneumonia, etc.) were detected during the course of the usual Medical Inspection of crews and passengers before embarkation, and were sent to the Civil Hospital, Karachi, for treatment.

XVI.—DEATHS FROM OTHER DISEASES REPORTED ON BOARDSHIP.

During the year under report, nine deaths from various diseases (*e. g.*, pneumonia, bronchitis, phthisis, sunstroke, heart-failure, etc.) were reported as having occurred on board of vessels either in Karachi Harbour or during the voyage to Karachi.

XVII.—EMIGRANTS.

During the year under report thirty-nine Emigrants proceeding to Mombassa, East Africa, *via* Bombay, were medically examined by the Health Officer of the Port, as Medical Inspector of Emigrants, and given certificates that they were in a fit state of health to undertake the voyage to East Africa, as required in section 65 (1) of the Indian Emigration Act of 1908.

XVIII.—RED SEA PILGRIM TRAFFIC.

Owing to the abnormal shipping conditions brought about by the war, no pilgrimships sailed from, or returned with pilgrims to, the Port of Karachi during the year under report.

XIX.—PILGRIM CAMP.

About 500 intending pilgrims came to Karachi from time to time during the Haj Season which lasted from the middle of May to the end of September 1915, and of this number about

100 availed themselves of the accommodation in the Pilgrim Camp. But, inasmuch as no steamers were forthcoming to convey them to the Hedjaz, the pilgrims were induced, in their own interests, to postpone their pilgrimage and return to their native places till normal conditions were restored.

XX.—CLAYTON APPARATUS.

During the year three vessels were disinfected (fumigated) by means of the Clayton Apparatus before sailing hence for ports out of India, as shown in the following table:—

No.	Name of Steamers.	Date of Fumigation.	Remarks.
1	S. S. "Querimba" ...	7th August 1915 ...	At the request of the Agent.
2	S. S. "Sealda" ...	16th October 1915 ...	Do.
3	A. Government vessel ...	31st December 1915 ...	Do.

XXI.—SANITARY STATE OF THE HARBOUR.

The sanitary state of the Harbour was fairly satisfactory.

XXII.—PORT HEALTH ESTABLISHMENT.

During the year under report Assistant Surgeon G. de S. Fylinto, L. M. & S., acted as Health Officer of the Port from 1st January to 14th June 1915, on which date the undersigned, having returned from furlough, resumed charge of the Port Health Department.

The following list shows the names of the Medical Staff who did duty under the Health Officer of the Port during the year:—

Names.	Period of service.		
	Y.	m.	d.
Assistant Surgeon G. de S. Fylinto	0	9	0
Assistant Surgeon Samuel Joseph	0	3	0
Sub-Assistant Surgeon Baharsing Toursing	1	0	0
Mrs. Lake, Lady Nurse	0	11	0
Mrs. Lobes, Acting Lady Nurse	0	1	0

Assistant Surgeon G. de S. Fylinto, L. M. & S., was transferred to Civil duty at Sávantvádi (Bombay Presidency, on 1st October 1915, and Assistant Surgeon S. Joseph, L. M. & S., was appointed in his place.

Mrs. Lake proceeded on one month's privilege leave from 19th November to 18th December 1915, and Mrs. Lobes was appointed to act for her.

The above Medical Staff carried out their responsible duties with tact and efficiency.

The Clerk, Mr. Mahomed Jaffer Sheikh Ibrahim, also performed his duties conscientiously and efficiently.

The office peons and all the members of the Disinfection Station, Steam Launch and Clayton Apparatus establishments worked satisfactorily.

Karachi, 20th January 1916.

H. CAREY VENIS,
L.R.C.P., L.R.C.S., D.P.H.,
Health Officer of the Port, Karachi.

APPENDIX II (c).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT,
ADEN, FOR THE YEAR 1915.

I.—GENERAL REMARKS.

Shipping.—1,125 steamers and rigged vessels were granted bills of health during the year.

Of the above number 876 were sailing under the British flag and 249 under Foreign flags.

Bills of health issued to vessels having had cases of infectious diseases on board were annotated according to the circumstances of each case.

1,027 bills of health were issued to dhows during the year.

The accompanying Table A gives a list of vessels on board of which infectious diseases existed on arrival. In the case of these vessels all sanitary precautions were taken to prevent the spread of the disease.

The following cases of infectious diseases were landed from the shipping :—

Small-pox	...	...	...	13
Scarlatina	...	...	...	1
Chicken-pox	...	...	...	8
Measles	...	...	...	5
Jigger	...	...	...	15

II.—PILGRIM TRAFFIC.

Nine ships carrying pilgrims passed through this port during the year; all were medically inspected but they were not granted pratique.

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Remarks.
1915	9	5,555	7	

III.—TABLE A.

List of vessels on board of which cases of infectious diseases existed on arrival at this port, during the year ending 31st December 1915 :—

Date.	Name of Ship.	Nationality.	From	To	Number of cases.	Remarks.
.....	A hired transport	British	.....	.....	1 s.-p....	Landed.
17th January 1915	S.S. "Kaisar-i-Hind"	Do.	London	Bombay	1 mls.	On board.
24th " " "	" "Merkara"	Do.	Calcutta	London	1 mls....	Do.
26th " " "	" "Arabia"	Do.	Bombay	Do.	1 c.-p.	Do.
30th " " "	" "Barosi"	Do.	Colombo	Do.	1 s.-p.	Landed.
4th February 1915	" "Falcon"	Do.	D'Jibouti	S. Coast	1 s.-p....	Do.
" " " "	" "Tadjoura"	French	Do.	D'Jibouti	1 c.-p....	Do.
4th March 1915	" "Nirvana"	British	Calcutta	London	1 s.-p.	Do.
" " " "	" "Cluny Castle"	Do.	London	Natal	9 mls....	On board landed.
7th " " "	" "Morea"	Do.	Do.	Sydney	1 ger. 1 mls.	On board.
11th " " "	" "Tadjoura"	French	D'Jibouti	D'Jibouti	1 s.-p. 1 c.-p.	Landed.
16th " " "	A War Ship	British	.....	.....	1 c.-p....	On board.
17th " " "	S.S. "Clan Macanlay"	Do.	Calicut	London	1 c.-p.	Landed.
20th " " "	" "Kandahar"	Do.	Calcutta	New York	1 c.-p....	Do.
" " " "	" "Porto di Adalia"	Italy	Mombassa	Assab	1 s.-p. 9 jiggs.	Do.

Date.	Name of Ship.	Nationality.	From	To	Number of cases.	Remarks.
26th March 1915...	S.S. "Budrie"	British	Massawa	Karachi	1 c.p.	On board.
.....	A transport	Do.	.....	.....	4 mls.	Do.
28th March 1915 ...	S.S. "Kaisar-i-Hind"	Do.	London	Bombay	1 mls.	Do.
.....	A Hospital Ship	Do.	.....	.....	1 s.p.	Landed.
.....	A War Ship	Do.	While in the	Harbour	1 c.p.	Do.
18th April 1915 ...	S.S. "Moldavia"	Do.	London	Sydney	1 ger. mls.	On board.
20th " " ...	" "Kaisar-i-Hind"	Do.	Bombay	London	1 mls.	Do.
25th " " ...	" "Caledonia"	Do.	London	Bombay	1 ger. mls.	Do.
27th " " ...	" "Chapra"	Do.	Colombo	London	1 s.p.	Landed.
3rd May 1915 ...	" "Jelanga"	Do.	Bombay	Bombay	1 s.p.	Do.
6th " " ...	" "Novara"	Do.	Do.	London	1 s.p.	Do.
13th " " ...	" "Khiva"	Do.	Calcutta	Do.	1 s.p.	Do.
17th " " ...	" "Clan Macdon-gall"	Do.	Manila	Port Said	1 s.p.	Do.
10th June 1915 ...	" "Tadjoura"	French	D'Jibouti	D'Jibouti	1 c.p.	Do.
12th " " ...	" "Tadjoura"	Do.	Do.	Do.	1 c.p.	Do.
13th " " ...	" "Falcon"	British	S. Coast	S. Coast	1 c.p.	Do.
.....	A transport	Do.	.....	.....	1 scart.	Do.
0t August 1915	S.S. Malwa"	Do.	Sydney	London	1 mls.	On board.
.....	A transport	Do.	.....	.....	1 scart.	Do.
29th October 1915	S.S. "Moldavia"	Do.	Sydney	London	4 mls. 2 mls.	Landed. On board.
7th Nov. 1915 ...	" "Porto di Adalia"	Italy	Mombassa	D'Jibouti	2 jigger.	Landed.
30th " " ...	" "Arabia"	British	London	Sydney	1 c.p.	On board.
1st December 1915	" "Tuna"	Do.	Zanaibar	Kamaran	4 jigger.	Landed.
3rd " " ...	" "Zoroaster"	Do.	Bombay	Mostyn Deep	1 s.p.	Do.

N. B.—S.-P. stands for small-pox, C.-P. for chicken-pox, Mls. for measles, Scart. for scarlatina, and Ger.-mls. for German measles.

IV.—The following are the names and other information regarding pilgrimships, which passed through Aden during the year :—

No.	Date and month.	Names of Vessels.	Nationality.	From	To	Number of		
						Pilgrims.	Cases of infectious disease.	Deaths.
1	22nd January 1915 ...	S.S. "Akbar"	British	Jeddah	Bombay	1483	.....	4
2	22nd February 1915..	" "Koweit"	Do.	Do.	Do.	101	.....	...
3	7th September 1915...	" "Jehangir"	Do.	Bombay	Jeddah	374	.....	...
4	19th " " ...	" "Hejaz"	Do.	Do.	Do.	668	.....	1
5	25th " " ...	" "Akbar"	Do.	Do.	Do.	765	.....	...
6	11th October 1915 ...	" "Sardar"	Do.	Do.	Do.	622	.....	1
7	8th November 1915 ...	" "Koweit"	Do.	Jeddah	Bombay	660	.....	1
8	" " " " ...	" "Sardar"	Do.	Do.	Do.	486	.....	...
9	26th " " ...	" "Jehangir"	Do.	Do.	Do.	393	.....	...

V.—PREVAILING DISEASES.

Malarial fever, diseases of respiratory and digestive system, ulcers and local injuries.

Epidemics.—There were no epidemics with the exception of small-pox, which prevailed in sporadic form in the Cooly lines, Tawahi, from 20th March to 30th June 1915. All sanitary precautions were taken to eradicate and prevent the spread of the disease. Such as isolation of cases, isolation of contacts, and disinfection of houses. Vaccination with Bombay Glycerinated Vaccine and Vaccine lymph from Kasauli was offered to the coolies and to the residents of Tawahi who came forward to have it done and to others who were willing to be vaccinated.

VI.—Statement showing the number of cases treated at the Small-pox Hospital, Maalla, during the year:—

Year.	Remaining as per last return.	Admissions for small-pox, measles and contact cases.	Deaths.	Protected.	Unprotected.	
1915 ...	16	204	6	161	43	
Source of admission.						
Shipping.	Steamer Point.	Maalla.	Crater.	Interior.	Europeans.	Remarks.
24 ...	164	6	4	6	2 (included)	

VII.—Statement showing the tubes received, their cost, and the vaccination operations performed during the year at the Port and in Tawahi:—

Number of tubes of Bombay Municipal Vaccine.	Cost.	Total number of vaccinations performed.	Result.	Remarks.
2,998	Rs. 749 8 0	7,114	All unknown.	

In addition to the above tubes, 20 tubes of Vaccine Lymph from the Institute, at Kasauli, were also obtained at a cost of Rs. 12-8-0 during the small-pox epidemic.

N. B.—It is impossible to have the results of vaccination of operations recorded, as those vaccinated are immigrants, who are vaccinated on landing, and a few coolies, who are homeless.

The vaccinations performed during the year are all nominally primary.

VIII.—ESTABLISHMENT.

Major J. L. Marjoribanks, M.D., D.P.H., I. M. S., acted from 1st January to 21st February 1915.

Captain R. B. S. Sewell, B.A., I. M. S., acted from 22nd February to 4th July 1915.

Dr. John C. Young, M.A., M.B., C.M., D.T.M., acted from 5th July to 31st December 1915.

Office establishment.

Mr. G. F. Andeen from 1st January to 12th March 1915, and Mr. H. C. DePenning from 13th March to 31st December 1915.

Peons.

Hassan Saif, from 1st January to 17th April 1915, then he resigned. Abdulla Salch was appointed in his place from 13th April 1915 who resigned from 7th May 1915.

Syed Ibrahim was appointed in his place from 17th June 1915 and has been working since.

IX.—LAUNCH ESTABLISHMENT.

1. Driver Hussein Noman, 1st January to 31st December 1915.
2. Succani Ahmed Suleman was on leave up to 31st January 1915, Lascar Muhammad Magon was appointed acting Succani during his absence. The Succani rejoined his appointment from leave on 1st February 1915 and resumed his duties.
3. Baisher Hizam, Stoker, 1st January to 31st December 1915.
4. Muktar Jaffer was appointed to act for Lascar Muhammad Magon from 1st to 31st January 1915. The latter reverted to his appointment as Lascar from 1st February 1915.

X.—DISINFECTING STOVE.

The establishment consisted of the following :—

1 Engine Driver, 1 Fireman, and 2 Lascars.

The services of the establishment are sanctioned annually by Government.

The establishment was employed throughout the year.

The services of the establishment have now been dispensed with as a temporary measure from 31st December 1915, except those of the fireman, whose services have been retained, and are absolutely necessary for the care of the Disinfecting Stove.

Aden, 4th February 1916.

JOHN C. YOUNG,
Acting Health Officer of the Port, Aden.

APPENDIX III.

The following table shows when the drainage systems and water-works were completed in the towns mentioned therein, with the average annual death-rate for the five-year period preceding the introduction and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality:—

The rural death-rates for each district are added for comparison.

District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1915 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in rural circles for the year 1915.	Plague mortality in rural circles for the year 1915.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay	a 1870	b 1892	30·63	27·08	.....	.....
West Khándesh	Dhulia	Dhulia ... ..	.....	1890	24·61	32·50	27·17	.....
Ahmednagar	Ahmednagar	Ahmednagar ... ..	.....	1897	24·33	55·65	24·31	·35
Surat	Chorási	Surat ... ..	.....	1898	23·01	30·77	57·49	1·39
Ahmedabad	Daskroi	Ahmedabad	c 1893	1891	45·69	45·21	22·40	.....
Karáchi	Karáchi	Karáchi	c 1895	1894	31·83	35·15	6·77	·66
Sukkur	Sukkur	Sukkur ... ..	.....	1895	26·22	28·70	27·78	1·15
Thána	Sálsotto	Bándra ... ..	.....	1896	23·88	23·01	22·54	·70
Kolába	Panvel	Panvel ... ..	.....	1895	23·47	19·50	20·98	·04
Dhárwár	Hubli	Hubli ... ..	.....	1894	27·50	23·70	27·55	3·44
Ahmedabad	Virangám	Virangám	d 1893	.....	35·59	69·23	27·54	.....
East Khándesh	Jalgaon	Jalgaon ... ..	.....	1909	23·88	31·56	31·32	.....
Sholápar	Pandharpur	Pandharpur ... ..	.....	1911	44·10	49·98	25·09	·25
Násik	Násik	Násik ... ..	.....	1913	32·15	52·73	36·69	7·71
Bijápur	Bijápur	Bijápur ... ..	.....	1913	20·99	30·08	23·67	1·02

a Drainage works commenced in 1879 are still in progress.

b Táluka water-works completed in 1892. Besides these there are Vehár and Tulshi water-works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—Showing the Births registered in the Districts of the Bombay Presidency during the year 1915.

1 No.	2 Districts.	3 POPULATION ACCORDING TO CENSUS OF 1911.			4 NUMBER OF BIRTHS REGISTERED.			5 RATIO OF BIRTHS PER 1,000 OF POPULATION.			6 Number of males born to every 100 females born.	7 Excess of Births over Deaths per 1,000 of Popu- lation.	8 Excess of Deaths over Births per 1,000 of Popu- lation.	9 MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.				
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.		
	<i>Western Registration District.</i>																	
1	East Khândesh ..	521,546	612,608	1,034,214	26,912	21,941	51,853	26.02	24.12	50.14	107.00	20.00	..	26.27	24.07	51.24		
2	West Khândesh ..	293,300	287,350	560,650	14,964	14,504	29,468	26.60	24.98	50.78	103.30	25.64	..	27.33	26.20	53.59		
3	Násik ..	455,045	418,589	903,611	20,906	19,017	40,823	23.14	22.04	45.18	104.91	7.29	..	24.30	23.11	47.41		
4	Thána ..	466,073	424,235	890,508	16,707	16,125	32,832	18.07	18.30	37.27	103.63	12.21	..	18.05	17.02	35.07		
5	Kolába ..	295,065	208,872	504,057	12,615	12,145	24,760	21.23	20.44	41.67	103.86	14.63	..	20.04	18.68	38.92		
6	City of Bombay ..	629,854	333,509	963,363	10,120	612	10,732	10.50	0.98	20.48	105.28	..	3.69	10.67	10.23	20.60		
	<i>Central Registration District.</i>																	
7	Ahmednagar ..	475,163	468,828	913,991	22,016	20,484	42,500	23.32	21.70	45.02	107.48	19.44	..	20.68	19.91	40.53		
8	Poona ..	533,238	526,568	1,064,806	19,464	18,317	37,781	18.28	17.20	35.48	106.26	9.35	..	17.56	16.34	33.90		
9	Sholápur ..	391,311	376,706	768,017	17,982	17,398	35,320	23.41	21.58	45.89	103.71	6.83	..	21.64	20.56	42.19		
10	Sátára ..	538,841	541,957	1,080,798	21,970	21,218	43,218	23.33	19.66	39.99	103.40	14.40	..	19.49	18.45	37.94		
11	Batnágiri ..	553,563	650,234	1,203,693	20,612	19,259	39,894	17.12	16.00	33.12	107.06	11.25	..	17.22	16.21	33.43		
	<i>Southern Registration District.</i>																	
12	Belgaum ..	478,453	463,400	941,948	19,919	18,909	38,728	21.04	20.07	41.11	104.80	2.3	..	20.61	19.78	40.49		
13	Dhárwár ..	519,995	505,091	1,025,086	20,917	20,443	41,360	20.41	19.94	40.35	102.32	8.81	..	19.83	18.57	37.60		
14	Dijápur ..	493,866	429,061	862,927	17,350	16,765	34,115	20.10	19.43	39.53	103.43	15.87	..	20.70	20.00	40.70		
15	Kánara ..	220,065	210,369	430,434	7,373	7,136	14,509	17.13	16.58	33.71	103.32	4.30	..	16.65	15.83	32.84		
	<i>Gujardt Registration District.</i>																	
16	Surát ..	326,639	327,135	653,974	12,791	13,066	24,857	19.56	18.45	38.01	106.01	9.30	..	19.06	18.11	37.72		
17	Broach ..	158,210	148,448	306,667	7,146	6,847	13,698	23.90	21.35	44.65	109.15	10.40	..	23.43	21.96	45.93		
18	Kaira ..	370,174	321,403	691,642	15,851	14,184	30,035	22.92	20.61	43.43	111.75	18.70	..	22.60	20.59	43.19		
19	Panch Maháls ..	165,902	156,751	322,653	7,555	7,141	14,696	23.42	22.13	45.55	103.79	27.52	..	22.62	21.68	44.20		
20	Ahmedabad ..	432,124	395,213	827,337	18,349	16,611	34,960	23.18	20.09	42.28	110.46	13.67	..	20.18	18.22	38.40		
	<i>Sind Registration District.</i>																	
21	Karachi ..	299,390	225,043	516,333	7,054	6,955	13,609	13.68	11.60	25.25	117.60	4.10	..	12.77	10.65	23.72		
22	Hyderabad ..	337,526	278,564	611,110	6,180	4,630	10,719	10.11	7.43	17.64	136.15	4.11	..	9.75	7.28	17.03		
23	Thar and Párkar ..	241,274	102,001	343,365	7,945	4,746	10,704	13.73	10.97	24.70	125.06	9.12	..	11.73	9.28	20.99		
24	Nawabshah ..	247,719	200,739	448,478	5,401	3,961	9,362	12.04	8.63	20.88	136.35	3.79	..	10.15	7.10	17.24		
25	Lárkána ..	359,207	301,621	660,828	9,629	7,606	17,135	14.49	11.51	25.93	125.28	7.78	..	13.36	10.55	23.92		
26	Sukkur ..	312,732	260,803	573,535	7,668	6,425	14,393	13.80	11.20	25.09	124.02	4.98	..	13.03	10.42	24.75		
27	Upper Sind Frontier ..	145,541	117,445	262,986	3,411	2,833	6,394	12.07	11.00	23.67	117.91	10.31	..	11.78	8.96	20.74		
	Total for the Pre- sidency ..	10,188,455	9,396,928	19,587,383	376,950	349,859	726,760	19.24	17.68	37.10	107.74	10.98	..	18.75	17.39	36.14		

ANNUAL FORM NO. II.—Showing the BIRTHS and DEATHS registered in the DISTRICTS of the BOMBAY PRESIDENCY during the year 1915.

1 Number.	2 Districts.	3 Area in square miles.	4 Average population per square mile.	5 POPULATION (CENSUS 1911).			6 BIRTHS.		7 NUMBER OF DEATHS REGISTERED.			8 Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
<i>Western Registration District.</i>												
1	East Khandesh	4,559	227	521,548	512,668	1,034,214	51,853	50.14	15,847	14,547	30,104	107.53
2	West Khandesh	5,439	109	293,300	237,280	530,580	29,453	50.78	7,616	6,950	14,566	109.11
3	Nasik	5,679	154	455,045	443,699	903,644	40,823	45.18	17,200	17,033	34,233	109.28
4	Thana	3,576	246	456,673	424,235	880,908	32,832	37.27	11,173	10,897	22,071	102.54
5	Kolaba	2,169	274	295,055	293,972	594,057	24,760	41.67	8,160	7,871	16,051	103.93
6	City of Bombay	22.5	41,493	629,854	333,509	963,363	10,732	20.48	12,719	10,568	23,287	120.35
<i>Central Registration District.</i>												
7	Ahmednagar	6,613	142	475,163	468,828	943,991	43,500	45.02	12,493	11,656	24,149	107.13
8	Poona	5,368	168	539,238	529,508	1,068,746	37,781	35.45	14,315	13,505	27,820	105.00
9	Sholapur	4,556	169	301,311	376,706	708,017	35,320	45.09	15,179	14,598	30,077	101.69
10	Satara	4,818	224	535,841	541,957	1,080,799	43,218	39.99	13,859	13,798	27,657	100.44
11	Ratnagiri	3,989	302	553,368	650,234	1,203,602	39,864	33.12	13,238	13,050	26,318	101.21
<i>Southern Registration District.</i>												
12	Belgaum	4,613	204	478,458	463,490	941,948	38,723	41.11	16,352	16,509	32,861	99.05
13	Dharwar	4,604	223	519,095	505,091	1,025,086	41,360	40.25	15,214	16,115	32,329	100.61
14	Bijapur	5,707	151	433,696	429,061	862,927	34,115	39.53	10,298	10,123	20,424	101.70
15	Kanara	3,946	109	220,065	210,369	430,434	14,509	33.71	6,424	6,254	12,658	103.05
<i>Gujarat Registration District.</i>												
16	Surat	1,651	396	326,839	327,135	653,974	24,557	38.01	8,573	9,107	18,775	104.14
17	Broach	1,428	209	158,219	148,443	306,667	13,633	44.65	4,367	4,293	8,665	101.61
18	Kaira	1,596	433	370,174	321,463	691,642	30,635	43.43	8,971	8,132	17,103	110.32
19	Panch Mahals	1,608	201	165,902	156,731	322,633	14,695	45.55	2,954	2,865	5,819	103.11
20	Ahmedabad	3,824	216	432,124	395,213	827,337	34,960	42.26	12,172	11,240	23,412	108.29
<i>Sind Registration District.</i>												
21	Karachi	11,782	44	290,890	225,943	516,833	13,039	25.25	6,181	4,740	10,921	130.43
22	Hyderabad	4,417	136	337,526	273,584	611,110	10,719	17.54	5,946	4,708	10,654	126.30
23	Thar and Parkar	13,638	32	241,274	192,031	433,305	10,704	24.70	3,664	3,063	6,722	130.08
24	Nawabshah	3,667	116	247,719	200,759	448,478	9,362	20.33	4,273	3,389	7,662	126.05
25	Larkhana	5,053	131	359,207	301,621	660,828	17,135	25.93	6,402	5,492	11,895	118.41
26	Sukkur	5,555	103	312,732	260,893	573,625	14,393	25.09	6,189	5,349	11,533	115.70
27	Upper Sind Frontier	2,644	89	145,541	117,445	262,986	6,304	33.97	1,646	1,646	3,292	118.23
Total for the Presidency		122,878	159	10,188,455	9,398,928	19,587,383	726,789	37.10	263,672	247,841	511,613	108.34

1 Number.	2 Districts.	9 DEATHS PER 1,000 OF POPULATION FROM										10 MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.			
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory Diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.
										Male.	Female.	Total.			
<i>Western Registration District.</i>															
1	East Khandesh ... ..	.03	.03	.36	12.01	1.53	4.20	.31	10.69	30.00	2.37	20.19	38.59	37.74	38.33
2	West Khandesh ... ..	.04	.03	.01	12.08	.89	2.73	.32	9.59	25.07	24.29	25.13	38.28	35.38	35.53
3	Nasik ... ..	.01	.23	7.99	12.33	1.15	4.30	.34	11.51	37.80	37.97	37.88	38.29	36.81	37.55
4	Thana ... ..	.05	.11	.69	15.69	.78	1.16	.61	5.69	24.47	25.69	25.69	27.02	26.86	26.94
5	Kolaba ... ..	.00	.09	.26	15.34	1.74	1.07	.45	8.10	27.72	20.32	27.02	29.40	27.64	28.52
6	City of Bombay ... ..	.01	.37	.62	2.13	2.23	8.16	.58	10.07	50.19	31.63	24.17	30.40	44.83	35.45
<i>Central Registration District.</i>															
7	Ahmednagar ... ..	.00	.00	.47	9.36	2.89	4.33	.96	8.47	26.29	24.86	25.58	32.30	30.40	31.35
8	Poona ... ..	.01	.07	1.73	11.50	2.53	3.61	.32	6.36	24.00	25.65	26.13	31.45	29.97	30.72
9	Sholapur ... ..	.01	.05	10.12	13.25	4.61	2.17	.42	6.53	33.79	30.55	30.16	35.15	35.19	35.12
10	Satara ... ..	.00	.02	3.36	10.61	2.65	1.85	.52	6.55	25.72	25.48	25.59	29.00	28.91	29.25
11	Ratnagiri ... ..	.00	.03	.01	10.74	3.22	3.35	.44	4.03	23.02	20.12	21.87	23.60	19.79	21.65
<i>Southern Registration District.</i>															
12	Belgaum ... ..	.00	.01	10.11	6.18	2.95	8.10	.54	12.60	34.13	35.62	34.89	31.70	32.37	32.63
13	Dharwar ... ..	.01	.07	5.83	7.64	1.28	3.97	.59	12.35	31.18	31.91	31.54	35.50	33.62	35.71
14	Bijapur ... ..	.00	.03	1.12	8.94	1.06	2.67	.49	6.56	23.74	23.60	23.67	33.46	33.60	33.66
15	Kanara ... ..	.03	.64	.11	11.61	2.36	1.15	.56	12.95	29.19	29.63	29.41	31.91	30.61	31.27
<i>Gujarat Registration District.</i>															
16	Surat ... ..	.00	.01	1.75	12.30	.93	7.29	.33	5.96	23.31	28.11	23.71	29.96	30.19	29.57
17	Broach ... ..	.00	.00	.77	15.05	.51	5.45	.38	6.00	27.69	25.95	25.26	36.23	37.21	36.79
18	Kaira ... ..	.00	.00	.15	9.18	.66	7.22	.59	6.43	24.23	25.29	24.72	32.79	34.32	33.72
19	Panch Mahals ... ..	.43	.00	.27	12.31	.18	.12	.11	3.53	17.81	18.25	18.33	22.54	22.01	22.72
20	Ahmedabad ... ..	.04	.00	.03	13.17	.51	4.91	.50	4.14	25.17	25.14	25.30	35.94	37.07	36.43
<i>Sind Registration District.</i>															
21	Karachi ... ..	.00	.04	2.77	10.11	.37	2.25	.39	5.23	21.23	20.08	21.15	20.61	21.29	20.61
22	Hyderabad ... ..	.00	.00	1.81	12.44	.25	1.10	.27	1.76	17.62	17.21	17.43	16.25	15.59	15.94
23	Thar and Parkar ... ..	.00	0.0	.01	13.14	.30	.88	.27	.65	15.27	15.67	15.65	17.52	17.69	17.59
24	Nawabshah ... ..	.00	.00	.25	15.49	.19	.21	.38	.62	17.25	13.88	17.05	15.37	15.07	15.26
25	Larkhana ... ..	.00	.00	.68	16.68	.07	.12	.39	.81	18.10	18.21	18.15	19.23	20.83	20.62
26	Sukkur ... ..	.14	.01	.65	10.15	.26	.45	.36	2.50	19.79	20.51	20.12	19.00	19.21	19.53
27	Upper Sind Frontier ... ..	.00	.00	.15	11.70	.18	.51	.29	.04	14.37	14.02	13.61	14.21	15.19	14.67
Total for the Presidency ... ..		.02	.07	2.21	11.43	1.02	3.23	.41	7.05	25.83	29.38	26.12	29.60	30.6	29.91

ANNUAL FORM No. III.—DEATHS registered in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1915.

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths registered during the year.	No.
<i>Western Registration District.</i>															
1	East Khândesh	2,378	2,003	2,400	2,394	2,480	1,945	1,737	2,474	3,379	3,025	2,880	3,190	90,194	1
2	West Khândesh	1,436	1,103	1,360	1,247	1,109	893	810	1,084	1,204	1,231	1,283	1,698	14,596	2
3	Nâsik	2,700	2,613	2,686	2,185	1,986	1,872	2,184	3,200	3,517	3,904	3,445	3,129	34,283	3
4	Thâna	1,987	1,722	2,122	1,746	1,494	1,345	1,200	1,726	1,722	1,894	2,231	2,802	22,071	4
5	Kolâba	1,425	1,338	1,472	1,263	1,161	1,033	1,087	1,365	1,300	1,230	1,352	2,000	16,051	5
6	City of Bombay	1,789	1,023	1,080	2,075	2,030	1,700	1,769	2,004	2,002	2,031	2,004	2,171	23,257	6
<i>Central Registration District.</i>															
7	Ahmednagar	1,498	1,430	1,655	1,803	1,384	1,600	2,000	2,577	2,449	2,402	2,090	2,364	21,146	7
8	Poona	1,986	1,734	2,024	2,040	2,103	2,034	2,001	2,821	2,814	2,753	2,500	2,912	27,820	8
9	Sholâpur	1,331	1,314	1,812	1,667	1,682	1,844	1,781	2,754	3,067	3,951	4,335	4,559	40,077	9
10	Sâtârâ	1,820	1,633	1,907	1,851	1,849	1,845	2,079	2,723	3,107	2,953	2,754	3,222	27,657	10
11	Ratnâgiri	2,684	2,498	2,417	2,178	1,908	1,785	1,927	2,138	2,085	2,102	1,975	2,741	26,319	11
<i>Southern Registration District.</i>															
12	Belgaum	2,060	1,767	2,218	1,980	1,743	1,834	2,508	3,468	3,388	4,081	3,934	3,878	32,661	12
13	Dhârwar	2,523	1,979	2,495	2,123	1,895	1,925	2,333	3,072	3,170	3,201	3,439	4,112	32,829	13
14	Bijâpur	1,263	1,163	1,293	1,453	1,139	1,222	1,429	1,744	1,684	2,304	2,443	3,017	20,424	14
15	Kânara	1,235	1,140	1,093	912	810	813	828	873	846	1,165	1,161	1,437	12,638	15
<i>Gujardt Registration District.</i>															
16	Surat	1,395	1,711	1,815	1,717	1,403	1,209	1,146	1,320	1,455	1,598	1,712	1,828	18,775	16
17	Brouch	692	811	943	814	694	642	653	667	640	645	719	746	8,665	17
18	Kaira	1,879	1,635	1,686	1,421	1,296	1,297	1,392	1,423	1,296	1,274	1,439	1,465	17,103	18
19	Panch Mahâls	646	496	586	601	430	381	376	496	530	464	443	541	5,819	19
20	Ahmedabad... ..	2,405	2,265	2,236	1,984	1,762	1,408	1,352	1,692	1,919	1,737	2,175	2,267	23,412	20
<i>Sind Registration District.</i>															
21	Karâchi	1,120	1,095	1,163	1,170	1,238	848	404	406	664	694	676	1,013	10,921	21
22	Hyderabad	1,635	1,273	1,636	1,045	796	498	461	423	492	583	941	1,106	10,614	22
23	Thar and Pârkar	794	690	794	549	512	349	318	245	304	417	747	1,034	6,732	23
24	Nawabshah... ..	957	856	1,038	699	403	381	343	309	377	612	623	904	7,602	24
25	Lârkâna	1,903	1,222	1,231	854	764	641	658	645	701	658	1,142	1,396	11,955	25
26	Sukkur	1,293	1,038	1,184	1,021	771	660	618	603	674	693	1,200	1,494	11,538	26
27	Upper Sind Frontier	479	260	283	253	221	219	187	214	233	337	458	419	3,502	27
Total for the Presidency ...		43,743	38,218	43,424	38,723	35,382	32,469	34,068	42,635	45,504	48,722	50,620	55,099	611,013	
Ratio of deaths per 1,000 in each month...		2.23	1.95	2.22	1.93	1.80	1.66	1.74	2.18	2.33	2.49	2.58	2.97	20.12	

FORM No. IV.

ANNUAL FORM NO. IV.—DEATHS registered according to AGE in th.

1 No.	2 Districts.	3		4		5		6	
		Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
<i>Western Registration District.</i>									
1	East Khándesh	5,938	4,988	3,177	3,196	589	573	292	318
2	West Khándesh	2,738	2,366	1,640	1,556	329	309	153	144
3	Násik	4,467	3,797	3,112	3,151	1,134	1,316	713	872
4	Thána	2,528	2,221	1,969	2,200	639	714	305	290
5	Kolába	2,043	1,708	1,634	1,610	340	364	187	197
6	City of Bombay	3,475	3,074	1,181	1,335	306	413	287	344
<i>Central Registration District.</i>									
7	Ahmednagar	4,420	3,561	2,418	2,182	369	417	216	207
8	Poona	4,234	3,291	2,786	2,573	630	603	408	423
9	Sholápur	3,842	3,091	2,922	2,831	812	908	761	828
10	Sátára	3,384	2,787	2,963	2,906	772	852	501	570
11	Ratnágiri	2,183	1,748	1,898	1,907	665	619	368	360
<i>Southern Registration District.</i>									
12	Belgaum	2,929	2,390	2,592	2,956	1,401	1,589	983	1,149
13	Dhárwár	3,722	3,034	2,514	2,631	1,082	1,225	833	883
14	Bijápur	2,684	2,167	1,816	1,964	613	566	268	310
15	Kánara	1,532	1,453	723	760	233	246	153	99
<i>Gujarát Registration District.</i>									
16	Surat	2,306	2,130	1,660	1,560	557	585	289	334
17	Broach	1,355	1,247	828	779	164	155	74	89
18	Kaira	2,297	2,428	1,584	1,462	313	250	177	161
19	Panch Maháls	885	793	502	451	154	143	66	76
20	Ahmedabad	3,287	3,048	2,036	2,050	359	369	244	253
<i>Sind Registration District.</i>									
21	Karáchi	1,537	1,270	588	532	279	256	222	211
22	Hyderabad	931	806	533	468	249	243	231	211
23	Thar and Párkar	724	675	362	349	188	154	132	86
24	Nawabshah	690	607	419	361	191	149	167	94
25	Lárkána	1,241	1,096	560	523	300	286	201	165
26	Sukkur	1,537	1,380	716	589	248	251	193	172
27	Upper Sind Frontier	531	413	253	297	103	93	68	49
Total for the Presidency		67,440	57,569	43,397	43,119	13,009	13,653	8,497	8,895
Population according to Census of 1911		333,992	333,705	1,033,360	1,066,128	1,286,872	1,264,044	1,129,222	893,170
Ratios per 1,000 living		201.92	172.51	42.00	40.44	10.11	11.34	7.52	9.86

DISTRICTS of the BOMBAY PRESIDENCY during the year 1915.

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
207	325	613	852	843	796	910	625	866	639	2,212	2,235	1
93	154	328	468	486	438	496	299	471	318	882	928	2
448	689	1,251	1,668	1,509	1,528	1,408	1,042	1,182	929	1,976	2,041	3
293	336	867	1,159	1,054	1,054	1,044	687	977	735	1,498	1,501	4
219	290	592	795	691	573	823	559	790	795	861	980	5
746	782	2,099	1,571	1,441	818	1,176	566	981	616	1,027	1,049	6
370	568	656	855	583	493	744	594	1,219	1,148	1,498	1,631	7
321	490	812	1,115	993	956	932	682	981	773	2,218	2,599	8
686	733	1,145	1,359	1,077	1,107	973	930	920	884	2,041	2,227	9
363	486	916	1,060	882	1,009	922	692	940	784	2,216	2,652	10
471	581	917	1,121	964	1,038	1,079	859	1,327	1,092	3,366	3,755	11
620	706	1,551	1,694	1,370	1,367	1,360	1,047	1,293	1,055	2,253	2,556	12
544	658	1,355	1,821	1,346	1,368	1,317	1,028	1,323	1,113	2,178	2,354	13
193	261	592	849	557	599	731	537	910	704	1,929	2,169	14
179	249	589	778	729	627	706	435	667	546	923	1,041	15
297	336	691	888	734	770	775	581	824	516	1,445	1,497	16
87	89	269	368	322	329	398	321	365	302	505	619	17
181	164	752	686	831	707	932	589	771	553	1,133	1,132	18
57	94	209	295	252	229	254	201	246	182	329	396	19
307	294	1,251	1,123	1,181	1,044	1,154	928	1,107	869	1,246	1,262	20
285	249	814	670	739	491	564	321	460	231	693	509	21
300	266	807	709	851	656	763	461	580	343	695	545	22
141	110	411	429	459	396	430	239	384	247	450	333	23
195	198	559	546	598	477	493	313	412	268	549	376	24
271	279	720	894	801	687	794	498	672	370	943	694	25
232	277	483	627	637	519	624	397	611	312	903	825	26
71	72	150	200	159	170	170	107	147	87	289	218	27
8,185	9,736	21,399	24,600	22,089	20,246	21,972	15,588	21,426	16,411	36,258	38,124	
852,854	752,848	1,903,139	1,801,211	1,562,195	1,370,275	1,064,455	949,249	611,654	564,582	436,814	476,708	
9.60	12.93	11.24	13.66	14.14	14.78	20.64	16.42	35.03	29.07	83.01	79.97	

ANNUAL FORM No. V.—DEATHS registered according to CLASSES

1 No.	2 Districts.	3 POPULATION ACCORDING TO CENSUS OF 1911.						Total.
		Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	
<i>Western Registration District.</i>								
1	East Khándesh	99,521	902,131	9,361	748	371	22,082	1,034,214
2	West Khándesh	31,323	474,200	3,796	586	233	70,542	580,680
3	Násik	47,705	843,705	7,902	1,867	840	1,625	903,644
4	Thána	41,979	786,925	2,985	43,341	5,105	573	880,908
5	Kolába	28,876	560,266	1,411	1,149	303	2,052	594,057
6	City of Bombay	179,346	664,042	20,460	41,273	50,931	7,311	963,363
<i>Central Registration District.</i>								
7	Ahmednagar	47,959	855,676	15,284	23,622	222	1,228	943,991
8	Poona	48,936	991,738	11,731	8,230	2,695	1,476	1,064,806
9	Sholápur	55,377	703,215	7,643	1,412	334	36	763,017
10	Sátára	36,688	1,028,176	14,883	815	209	27	1,080,798
11	Ratnágiri	85,303	1,110,594	1,913	5,678	46	68	1,203,602
<i>Southern Registration District.</i>								
12	Belgaum	77,075	817,797	41,533	5,313	159	71	941,948
13	Dhárwár	136,943	872,885	10,413	4,526	218	101	1,025,086
14	Bijápur	101,069	757,542	3,235	1,052	28	1	862,927
15	Kánara	28,731	383,624	1,251	16,729	14	85	430,434
<i>Gujarát Registration District.</i>								
16	Surat	55,394	571,834	9,821	1,050	11,783	4,092	653,974
17	Broach	67,752	192,964	3,053	1,052	2,770	39,076	306,667
18	Kaira	63,280	598,165	6,609	23,490	81	17	691,642
19	Panch Maháls	22,273	274,339	1,542	1,810	204	22,485	322,653
20	Ahmedabad	92,018	693,209	35,899	3,584	1,639	988	827,337
<i>Sind Registration District.</i>								
21	Karáchi	396,334	111,748	650	3,625	2,202	1,774	516,333
22	Hyderabad	1,035,437	442,801	695	248	102	13,670	611,110
23	Thar and Párkar							433,365
24	Nawabshah							448,478
25	Lárkána	557,517	101,637	1	21	6	1,506	660,828
26	Sukkur	414,671	155,156	3	207	96	3,402	573,535
27	Upper Sind Frontier	235,970	26,495	...	10	5	506	262,086
Total for the Presidency		3,987,477	14,920,914	212,074	191,433	80,596	194,881	19,587,383

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

in the BOMBAY PRESIDENCY during the year 1915.

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
2,421	27,690	60	16	6	1	30,194	24.32	30.69	6.41	21.39	1.62	.04	29.19
539	14,050	3	4	...	...	14,596	17.20	29.62	.79	6.82	...	...	25.13
1,698	32,470	30	29	3	3	34,233	35.59	33.49	3.80	15.53	3.57	1.85	37.88
1,034	19,943	8	966	50	10	22,071	26.06	25.34	2.68	22.29	9.79	17.45	25.05
778	15,195	6	16	1	55	16,051	26.94	27.12	4.25	13.92	3.30	26.80	27.02
5,495	14,614	890	1,143	959	186	23,287	30.64	22.01	43.50	27.69	18.82	25.44	24.17
1,106	22,919	17	72	1	34	24,149	23.04	26.78	1.11	3.05	4.50	27.69	25.58
1,261	26,370	43	89	37	20	27,820	25.77	26.59	3.67	10.81	13.73	13.56	26.13
2,109	27,773	144	34	3	14	30,077	38.03	39.49	13.84	24.08	8.98	388.89	39.16
971	26,322	355	7	...	2	27,657	26.47	25.60	23.85	8.59	...	74.07	25.59
1,812	24,404	21	78	...	3	26,318	21.24	21.97	10.98	13.73	...	44.12	21.86
2,680	28,137	1,893	144	3	4	32,861	34.77	34.41	45.53	27.10	18.87	56.34	34.83
4,036	27,907	298	80	3	5	32,329	29.47	31.97	28.62	17.68	13.76	49.50	31.54
2,234	18,118	61	11	...	...	20,424	22.10	23.92	13.86	10.46	...	...	23.67
583	11,652	31	337	1	4	12,658	20.29	30.37	24.78	23.13	71.43	47.06	29.41
1,197	15,076	166	20	244	2,072	18,775	21.61	26.36	16.90	19.05	20.71	506.35	28.71
1,736	5,893	30	10	52	944	8,665	25.62	30.54	9.83	9.50	18.77	24.16	28.25
1,470	15,409	72	147	...	5	17,103	23.23	25.76	10.89	6.03	...	294.11	24.73
473	4,016	18	10	1	1,307	5,819	21.24	14.62	11.67	5.53	4.90	58.13	18.03
2,645	19,764	866	91	26	20	23,412	23.74	28.51	24.12	25.39	15.86	20.24	28.29
6,757	4,044	...	63	38	19	10,921	17.05	36.19	...	17.38	17.26	10.71	21.15
6,730	3,892	5	2	...	25	10,654	14.84	21.75	17.26	24.19	...	3.95	17.43
3,313	3,421	6	3	...	9	6,752							15.53
5,324	2,316	1	1	...	20	7,662							17.08
9,722	2,266	...	...	...	7	11,995	17.44	22.28	...	...	...	4.39	18.15
6,703	4,809	2	...	...	19	11,538	16.18	30.99	666.67	...	...	5.58	20.12
2,995	597	...	...	...	...	3,592	12.69	22.53	...	...	...	...	13.66
77,887	419,061	5,026	3,423	1,428	4,788	511,613	19.53	28.09	23.70	17.88	17.72	24.57	26.12

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM NO. VI.—DEATHS registered from DIFFERENT CAUSES in th

1 No.	2 Districts and Towns.	3 Population according to Census of 1911.	4 Cholera.	5 Small-pox.	6 Plague.	7 Fevers.	8 Dysentery and Diarrhoea.	9 Respiratory Diseases.	10 INJURY		
									Suicide.		Wounding or Accident.
									Male.	Female.	
A.—DISTRICTS.											
<i>Western Registration District.</i>											
1	East Khándesh ...	903,053	24	29	370	11,120	1,449	3,706	9	7	194
2	West Khándesh ...	538,084	22	16	2	6,755	200	1,422	1	3	108
3	Násik ...	813,511	9	121	6,284	10,451	877	3,458	2	1	189
4	Thána ...	791,861	47	83	414	13,354	487	872	25	35	227
5	Kolába ...	567,043	...	37	40	8,933	1,012	595	9	3	193
<i>Central Registration District.</i>											
6	Ahmednagar ...	888,096	...	...	393	8,431	2,419	3,706	3	5	180
7	Poona ...	859,267	1	21	1,319	10,498	1,845	2,784	3	4	222
8	Sholápur ...	660,338	...	36	5,187	8,435	2,416	1,218	4	3	216
9	Sátára ...	1,023,700	1	20	2,729	11,148	2,700	1,825	8	17	335
10	Ratnágiri ...	1,136,710	1	91	12	12,307	3,626	3,795	13	5	211
<i>Southern Registration District.</i>											
11	Belgaum ...	869,243	1	4	8,538	5,574	2,647	2,612	16	11	381
12	Dhárwár ...	885,871	15	72	5,291	7,278	984	2,972	17	31	232
13	Bijápur ...	792,582	...	26	684	7,455	1,554	1,995	22	23	244
14	Kánara ...	382,278	11	265	46	4,796	875	390	5	...	129
<i>Gujarát Registration District.</i>											
15	Surat ...	512,580	2	6	362	7,400	301	3,513	8	16	140
16	Broach ...	242,979	...	...	178	4,090	102	1,060	3	5	74
17	Kaira ...	594,309	...	1	108	5,431	538	4,081	8	20	198
18	Panch Maháls ...	291,248	40	...	86	3,565	29	256	5	3	65
19	Ahmedabad ...	568,530	29	3	25	10,342	145	1,240	9	15	153
<i>Sind Registration District.</i>											
20	Karáchi ...	351,401	1	10	200	4,100	44	140	3	6	65
21	Hyderabad... ..	523,747	...	2	438	6,431	72	121	2	3	53
22	Thar and Párkar ...	424,563	...	...	...	5,368	127	293	2	1	60
23	Nawabshah ...	436,579	...	...	78	6,606	39	86	4	3	105
24	Larkána ...	628,336	...	...	6	10,375	39	53	4	3	151
25	Sukkur ...	468,207	25	...	117	6,999	55	61	3	2	123
26	Upper Sind Frontier.	251,646	...	...	...	2,908	43	79	1	3	48
Total of Districts ...		16,407,762	229	843	32,907	200,150	24,625	42,333	189	228	4,296
B.—TOWNS.											
<i>East Khándesh District.</i>											
1	Jalgaon ...	17,195	...	...	1	147	27	87	...	...	6
2	Bhusáwal ...	18,312	10	...	2	242	31	56	...	...	9
3	Chopda ...	17,008	...	...	...	152	19	70	...	...	9
4	Dharangaon ...	15,607	...	...	...	119	11	115	...	...	3
5	Párola ...	14,177	...	2	1	117	7	70	...	...	2
6	Amalner ...	13,232	...	...	...	136	7	48	...	...	2
7	Erandol ...	13,144	...	...	...	166	31	72	...	...	4

DISTRICTS and TOWNS of the BOMBAY PRESIDENCY during the year 1915.

			11	12	13										14
DISEASES.			All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.										No.
Snake-bite, or killed by wild beasts.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes.		
													For the year.	Mean of previous five years.	
46	7	263	9,984	26,945	.03	.03	.41	12.31	1.60	4.10	.29	11.06	29.84	38.96	1
56	5	173	5,305	18,895	.04	.03	.00	12.55	.88	2.64	.32	9.85	25.82	36.33	2
56	7	255	9,475	30,930	.01	.15	7.72	12.85	1.08	4.25	.31	11.65	38.02	37.52	3
180	10	477	4,158	19,892	.05	.10	.52	16.86	.62	1.10	.60	5.25	25.12	26.70	4
40	9	254	4,544	15,415	...	.07	.07	15.75	1.78	1.05	.45	8.01	27.18	28.56	5
43	6	237	7,755	22,941	...	...	.44	9.49	2.72	4.17	.27	8.73	25.82	31.09	6
55	13	297	5,155	21,920	.00	.02	1.53	12.22	2.15	3.24	.35	6.00	25.51	28.35	7
28	...	251	4,899	22,442	...	.05	7.86	12.77	3.66	1.84	.38	7.42	33.98	31.01	8
141	27	528	6,718	25,669	.00	.02	2.66	10.87	2.63	1.78	.52	6.55	25.03	29.11	9
268	3	500	4,532	24,864	.00	.08	.01	10.82	3.19	3.34	.44	3.99	21.87	21.72	10
51	10	469	10,678	30,523	.00	.00	9.82	6.41	3.05	3.01	.54	12.28	35.11	32.25	11
38	2	320	10,859	27,791	.02	.08	5.97	8.22	1.11	3.55	.36	12.26	31.37	38.73	12
27	3	319	6,508	18,541	...	.03	.86	9.40	1.96	2.52	.40	8.21	23.39	33.35	13
13	1	148	5,014	11,545	.03	.69	.12	12.55	2.29	1.02	.39	13.12	30.20	32.39	14
46	6	216	2,609	14,409	.00	.01	.71	14.44	.59	6.85	.42	5.09	28.11	30.99	15
31	2	115	1,288	6,833	...	...	.73	16.83	.42	4.38	.47	5.30	28.13	37.68	16
104	17	347	3,713	14,219	...	.00	.18	9.14	.92	6.87	.58	6.25	23.94	33.00	17
47	1	121	874	4,971	.14	...	.30	12.24	.10	.88	.41	3.00	17.07	22.52	18
97	15	289	1,331	13,404	.05	.01	.04	18.19	.25	2.18	.52	2.34	23.58	32.49	19
45	3	122	450	5,037	.00	.03	.57	11.67	.13	.40	.35	1.28	14.42	12.62	20
67	1	126	465	7,655	...	.00	.84	12.28	.14	.23	.24	.89	14.62	13.51	21
49	4	116	405	6,309	...	...	...	12.64	.30	.69	.27	.95	14.86	17.35	22
55	1	163	241	7,218	...	...	.18	15.13	.09	.20	.38	.55	16.53	15.26	23
83	2	243	308	11,024	...	...	.01	16.51	.06	.08	.39	.49	17.54	20.29	24
44	1	173	242	7,672	.05	...	.25	14.95	.12	.13	.37	.51	16.39	16.80	25
22	...	74	154	3,258	...	...	...	11.56	.17	.31	.29	.61	12.95	14.18	26
1,732	151	6,601	107,664	415,352	.01	.05	2.01	12.20	1.50	2.58	.40	6.56	25.31	28.97	
...	...	6	194	462	...	...	.06	8.55	1.57	5.06	.35	11.28	26.87	32.78	1
...	...	9	171	521	.54	...	.11	13.22	1.69	3.06	.49	9.34	28.45	...	2
1	1	11	93	345	...	...	...	8.93	1.12	4.12	.64	5.47	20.28	20.37	3
...	4	7	141	393	...	...	...	7.62	.71	7.37	.45	9.03	25.18	...	4
...	...	2	123	322	...	.14	.07	8.25	.49	4.94	.14	8.68	22.71	...	5
...	...	2	43	236	...	...	...	10.23	.53	3.63	.15	3.25	17.84	...	6
...	1	5	89	363	...	...	...	12.63	2.36	5.48	.38	6.77	27.62	...	7

1 No.	2 Districts and Towns.	3 Population according to Census of 1911.	4 Cholera.	5 Small-pox.	6 Plague.	7 Fevers.	8 Dysentery and Diarrhea.	9 Respiratory Diseases.	10 INJURY		
									Suicide.		Wounding or Accident.
									Male.	Female.	
<i>B.—TOWNS— continued.</i>											
<i>East Khândesh— District—continued.</i>											
8	Nasirabad	18,033	...	...	...	77	47	79	...	...	4
9	Châlisgaon	9,453	...	3	...	149	4	35	...	...	...
<i>West Khândesh District.</i>											
10	Dhulia	30,757	...	...	2	145	10	131	...	...	8
11	Nandurbâr... ..	11,839	...	...	...	104	13	35	...	1	2
<i>Nâsik District.</i>											
12	Nâsik	33,163	...	2	635	140	58	226	1	...	26
13	Yeola	16,275	...	...	7	160	35	128	...	...	4
14	Mâlegaon	19,542	...	133	193	242	39	48	...	...	7
15	Igatpuri	8,380	...	...	10	49	3	33	...	...	2
16	Manmâd	6,947	...	...	10	68	6	11	...	...	8
17	Trimbak	4,078	...	...	...	24	12	26	...	...	2
18	Deolâli Cantonment.	1,748	...	...	...	6	6	10	...	...	...
<i>Thâna District.</i>											
19	Thâna	15,591	...	1	11	109	35	38	2	1	7
20	Bândra	22,885	...	8	36	77	49	38	1	1	19
21	Kurla	15,081	...	1	1	188	37	8	...	...	5
22	Bhâwandi	13,292	...	1	79	160	34	17	...	...	2
23	Kalyân	12,600	...	...	25	129	17	36	...	...	1
24	Bassein	9,598	1	...	39	72	9	13	...	...	3
<i>Kolâba District.</i>											
25	Alibâg	3,358	...	...	2	15	5	11	...	...	2
26	Panvel	7,744	...	...	72	57	7	17	...	...	5
27	Mahâd	7,164	...	...	...	57	7	9	...	...	4
28	Uran	8,748	...	...	40	47	4	3	1	...	2
29	City of Bombay ...	968,363	15	355	598	2,056	2,145	7,860	40	19	486
<i>Ahmednagar District.</i>											
30	Ahmednagar	33,878	1	...	52	292	94	318	2	...	10
31	Sangamner... ..	14,269	...	...	...	111	25	36	...	...	...
32	Ahmednagar Cantonment.	7,748	...	...	...	3	1	24	...	...	...
<i>Poona District.</i>											
33	Poona	126,201	9	51	255	1,267	679	770	1	...	17
34	Bârâmâti	10,190	...	...	1	98	28	38	1	...	2
35	Khed	8,056	...	...	1	50	25	34	...	...	1

1	2	3	4	5	6	7	8	9	10		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
B.—TOWNS—											
<i>continued.</i>											
<i>Poona District—</i>											
<i>continued.</i>											
36	Lonávla	12,295	...	...	166	132	23	38	...	1	9
37	Junnar	8,820	...	...	74	38	9	13	...	...	3
38	Poona Cantonment .	30,958	...	...	20	125	41	100	...	...	...
39	Kirkee do.	9,019	...	...	2	41	40	65	...	...	6
<i>Sholápur District.</i>											
40	Sholápur	61,032	6	...	1,894	985	858	317	5	3	36
41	Bársi	18,097	...	1	653	274	58	41	...	...	11
42	Pandharpur	28,550	...	1	35	482	211	94	1	...	11
<i>Sátára District.</i>											
43	Sátára	18,665	...	...	2	156	79	100	1	...	7
44	Wái	7,280	...	...	95	66	23	18	...	...	1
45	Karád	11,228	...	...	249	63	31	10	...	1	9
46	Ashta	9,351	...	...	154	34	21	14	...	...	4
47	Islámpur	8,574	...	...	404	5	14	32	...	...	3
<i>Ratnágiri District.</i>											
48	Ratnágiri	15,822	...	...	...	146	120	41	...	...	3
49	Vengurla	17,294	...	1	1	158	84	49	...	...	8
50	Málvan	22,080	...	2	...	210	31	59	...	...	8
51	Chiplun	11,696	...	...	...	104	14	84	...	...	2
<i>Belgaum District.</i>											
52	Belgaum	31,451	2	...	343	110	40	122	...	...	7
53	Gokák	7,326	...	...	188	35	20	50	...	...	3
54	Athni	13,849	...	...	394	54	31	51	...	...	13
55	Nipáni	10,779	...	...	47	27	27	49	1	...	9
56	Belgaum Cantonment.	9,300	...	...	16	20	14	34	...	...	...
<i>Dhárwár District.</i>											
57	Dhárwár	29,370	...	...	82	134	77	199	...	2	14
58	Hubli	61,440	...	...	105	223	88	571	2	2	31
59	Gadag-Bettigeri ...	30,429	...	...	16	145	138	207	...	...	11
60	Ránebennur	10,931	...	...	482	16	14	73	...	...	4
61	Návalgund	7,045	...	...	...	30	5	44	...	...	4
<i>Bijápur District.</i>											
62	Bijápur	27,569	...	...	257	60	59	165	...	1	10
63	Bágalkot	17,294	1	...	13	70	59	72	...	1	6
64	Guledgudd	15,249	...	...	...	74	18	35	...	...	3
65	Ilhal	10,233	1	...	15	51	5	35	1	...	3

VI—continued.

			11	12	13										14
RIS.			All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.										No.
Snake-bite, or killed by wild beasts.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhea.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes.		
													For the year.	Mean of previous five years.	
...	...	10	87	456	...	...	13.50	10.74	1.67	3.09	.81	7.08	37.09	30.09	36
...	...	3	27	164	...	...	8.39	4.31	1.02	1.47	.34	3.06	18.59	21.77	37
...	297	583	...	...	.65	4.04	1.32	3.23	...	9.59	18.83	23.61	38
...	...	6	70	224	...	...	.22	4.55	4.43	7.21	.67	7.78	24.84	31.38	39
4	...	48	1093	5,204	.10	...	31.03	16.14	14.06	5.19	.79	17.96	85.27	65.55	40
...	1	12	254	1,293	...	.06	36.08	15.14	3.20	2.27	.66	14.04	71.45	56.75	41
1	...	13	302	1,138	...	.03	1.23	16.38	7.39	3.29	.46	10.58	39.86	52.64	42
1	1	10	176	523	...	...	.11	8.36	4.23	5.36	.53	9.43	28.02	40.77	43
...	...	1	41	244	...	...	13.05	9.07	3.16	2.47	.14	5.63	33.52	41.07	44
...	...	10	70	433	...	...	22.18	5.81	2.76	.89	.89	6.23	33.56	22.35	45
...	...	4	67	294	...	...	16.47	3.64	2.24	1.50	.43	7.16	31.44	21.18	46
1	...	4	35	494	...	...	47.12	.58	1.63	3.73	.49	4.08	57.61	30.32	47
4	...	7	62	376	...	...	...	9.23	7.58	2.59	.44	3.92	23.76	16.62	48
1	...	9	133	435	...	.06	.06	9.14	4.86	2.83	.52	7.68	25.15	26.37	49
3	...	11	104	417	...	.09	...	9.51	1.40	2.67	.50	4.71	18.88	19.57	50
1	...	3	21	226	...	...	...	8.89	1.20	7.18	.25	1.80	19.32	21.01	51
...	1	8	297	922	.06	...	10.91	3.50	1.27	3.88	.26	9.44	20.32	25.32	52
1	...	4	69	366	...	...	25.66	4.78	2.73	6.82	.55	9.42	49.96	63.75	53
1	...	14	111	655	...	...	28.45	3.90	2.24	3.69	1.01	8.01	47.30	23.09	54
1	...	11	68	229	...	...	4.36	2.50	2.50	4.55	1.02	6.31	21.25	23.39	55
...	82	166	...	...	1.72	2.15	1.50	3.66	...	8.82	17.85	18.07	56
2	...	18	336	906	...	...	2.79	4.56	2.62	6.78	.31	13.48	30.85	33.73	57
...	3	38	835	1,870	...	...	1.71	3.79	1.43	9.27	.62	13.59	30.44	37.52	58
...	3	14	283	803	...	...	.52	4.76	4.53	6.81	.46	9.31	26.39	42.33	59
...	...	4	241	830	...	...	44.09	1.48	1.28	6.68	.37	22.05	75.93	48.39	60
...	...	4	46	129	...	...	...	4.26	.71	6.25	.57	6.53	13.31	35.35	61
...	...	11	209	761	...	...	9.32	2.18	2.14	5.98	.40	7.58	27.60	32.70	62
...	...	7	342	564	.06	...	.75	4.05	3.41	4.16	.40	19.78	32.61	45.16	63
...	...	3	139	269	...	...	...	4.85	1.18	2.29	.20	9.12	17.64	34.99	64
1	...	5	177	283	.09	...	1.47	4.98	.49	3.42	.49	17.30	28.24	44.95	65

1 No.	2 Districts and Towns.	3 Population according to Census of 1911.	4 Cholera.	5 Small-pox.	6 Plague.	7 Fever.	8 Dysentery and Diarrhoea.	9 Respiratory Diseases.	10		
									Suicide.		Wounding or Accident.
									Male.	Female.	
B.—TOWNS—											
<i>continued.</i>											
<i>Kánara District.</i>											
66	Kárwár	18,045	1	2	...	88	57	21	...	...	2
67	Kumta	10,343	...	...	...	74	23	35	...	...	2
68	Gokarn	5,304	...	5	...	31	20	21	...	...	...
69	Honáwar	7,323	...	2	...	44	19	9	...	...	1
70	Bhatkal	7,141	...	...	...	52	20	18	...	...	2
<i>Surat District.</i>											
71	Surat	114,733	...	...	757	509	270	1,131	3	...	11
72	Bulsár	15,972	...	...	21	70	23	103	2	...	6
73	Ránder	10,689	...	...	3	63	14	79	...	1	3
<i>Broach District.</i>											
74	Broach	48,353	...	...	2	210	39	473	2	1	20
75	Jambusar	8,991	...	...	55	129	12	96	...	...	3
76	Ankleshwar	11,344	...	...	...	187	4	41	...	...	3
<i>Kaira District.</i>											
77	Kaira	7,297	...	...	...	56	5	103	...	...	1
78	Mehmadabad	6,330	...	...	...	34	8	36	...	...	2
79	Nadiád	27,145	...	...	...	352	17	271	...	...	18
80	Borsad	11,860	...	...	...	61	28	144	1	...	6
81	A'nand	10,139	...	...	...	121	16	43	...	...	2
82	Umreth	13,651	...	...	...	62	14	149	...	1	6
83	Dakore	7,755	...	...	...	109	18	63	1	...	3
84	Kapadvanj	13,126	...	...	...	121	17	106	1	1	4
<i>Panch Maháls District.</i>											
85	Godhra	22,102	55	...	2	125	20	40	...	...	7
86	Dohad	9,303	45	...	...	281	4	1	...	...	1
<i>Ahmedabad District.</i>											
87	Ahmedabad	214,000	...	...	1	4,152	240	2,530	5	2	85
88	Dhandhuka	8,040	...	...	...	97	12	63	...	...	2
89	Viramgám	20,769	...	1	...	317	11	126	...	...	7
90	Dholka	13,693	...	...	...	106	14	96	...	...	12
91	Ahmedabad Cantonment.	2,305	...	...	...	19	...	4	...	...	...
<i>Karáchi District.</i>											
92	Karáchi	140,511	...	8	1,107	847	131	956	2	...	63
93	Tatta	11,181	...	...	15	113	8	17	...	...	...
94	Kotri	7,256	1	...	98	140	8	49	...	...	4
95	Karáchi Cantonment.	6,004	...	...	9	21	1	...	...	...	...

VI—continued.

			11	12	13										14
FILLS.			All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION,										No.
Snake-bite, or killed by wild beasts.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory Diseases.	Injuries.	All other causes.	*From all Causes.		
													For the year.	Mean of previous five years.	
...	...	2	170	341	.06	.11	...	4.88	3.16	1.16	.11	9.42	18.90	20.56	66
1	...	3	132	267	...	...	...	7.15	2.22	3.38	.29	12.76	25.81	28.81	67
...	...	...	121	198	...	...	...	5.84	3.77	3.97	...	22.81	37.33	37.71	68
...	1	2	70	146	...	...	...	6.01	2.59	1.23	.27	9.56	19.93	24.44	69
...	...	2	69	161	...	...	...	7.28	2.80	2.52	.28	9.66	22.55	20.17	70
1	...	15	1,114	3,796	...	...	6.59	4.43	2.35	9.88	.13	9.71	33.09	23.07	71
...	...	8	78	303	...	...	1.31	4.38	1.45	6.45	.50	4.88	18.97	30.60	72
...	2	6	102	267	...	...	.28	5.89	1.31	7.39	.56	9.54	24.97	...	73
...	...	23	455	1,201	...	...	.04	4.84	.88	10.91	.53	10.50	27.70	32.93	74
3	...	6	26	324	...	...	6.12	14.35	1.33	10.68	.67	2.89	36.04	32.29	75
1	...	4	71	307	...	...	...	16.48	.35	3.61	.35	6.26	27.05	...	76
1	1	3	38	205	...	...	...	7.66	.69	14.12	.41	5.21	28.09	36.74	77
...	...	2	75	155	...	...	...	5.37	1.26	5.69	.32	11.85	24.49	...	78
3	...	21	261	922	...	...	...	12.97	.63	9.98	.77	9.61	33.96	46.94	79
1	...	8	93	339	...	...	...	5.14	2.36	12.14	.68	8.26	28.58	37.45	80
1	1	4	95	279	...	...	...	11.93	1.58	4.24	.40	9.37	27.52	...	81
1	...	3	129	362	...	...	...	4.54	1.03	10.91	.59	9.45	26.52	...	82
...	...	4	59	253	...	...	...	14.00	2.31	8.09	.52	7.58	32.50	...	83
...	2	8	117	369	...	...	...	9.22	1.29	8.08	.61	8.91	28.11	36.02	84
1	...	8	187	437	2.49	...	.09	5.66	.90	1.81	.36	8.46	19.77	7.16	85
1	...	2	78	411	4.83	...	...	30.21	.43	.11	.22	8.58	44.18	42.39	86
4	2	98	1,683	8,704	...	...	.00	19.40	1.12	11.82	.46	7.87	40.67	47.23	87
2	1	5	59	236	...	...	...	12.06	1.49	7.84	.62	7.34	29.35	...	88
1	...	8	170	633	...	.04	...	15.26	.53	6.07	.39	8.19	30.48	36.51	89
2	2	16	179	411	...	...	...	7.74	1.02	7.01	1.17	13.07	30.01	43.08	90
...	...	...	1	24	...	...	...	8.24	...	1.74	...	.43	10.41	12.84	91
...	3	71	2,083	5,203	...	.06	7.88	6.03	.93	6.80	.51	14.82	37.03	42.33	92
...	...	...	92	245	...	...	1.34	10.12	.72	1.52	...	8.24	21.95	...	93
...	...	4	20	320	.14	...	13.51	19.29	1.10	6.75	.55	2.76	44.10	...	94
...	...	...	55	85	...	...	1.50	3.50	.17	...	...	9.16	14.32	...	95

1 No.	2 Districts and Towns.	3 Population according to Census of 1911.	4 Cholera.	5 Small-pox.	6 Plague.	7 Fevers.	8 Dysentery and Diarrhoea.	9 Respiratory Diseases.	10		
									Suicide.		Wounding or Accidents.
									Male.	Female.	
B.—TOWNS— concluded.											
<i>Hyderabad District.</i>											
96	Hyderabad ...	69,140	...	1	372	974	78	542	...	...	28
97	Halla ...	5,853	...	...	5	90	...	...	...	...	5
98	Matinri ...	6,487	...	...	257	41	3	11	...	...	2
99	Hyderabad Cantonment.	5,883	...	...	35	68	...	...	1	...	1
<i>Thar and Parkar District.</i>											
100	Umarnkot ...	3,946	...	...	...	116	...	23	...	...	...
101	Mirpurkhas ...	4,856	...	...	5	210	2	64	...	...	...
<i>Nawabshah District.</i>											
102	Nawabshah ...	1,886	...	...	3	40	1	3	...	...	1
103	Tando Adam ...	10,013	...	...	44	303	2	7	...	...	3
<i>Larkana District.</i>											
104	Larkana ...	16,046	...	...	49	277	1	14	...	...	4
105	Kambar ...	6,286	...	...	...	163	1	3	...	...	6
106	Ratodero ...	5,411	...	...	...	109	3	2	...	...	1
107	Sehwan ...	4,749	...	...	1	92	1	6	...	...	2
<i>Sukkur District.</i>											
108	Sukkur ...	34,916	...	1	113	574	43	83	1	1	12
109	Shikarpur ...	53,944	...	...	79	1,288	28	91	2	...	15
110	Rohri ...	9,919	...	...	62	194	23	22	...	...	2
111	Garhi Yasin ...	6,549	...	...	3	210	1	...	...	...	1
<i>Upper Sind Frontier District.</i>											
112	Jacobabad ...	11,340	...	...	39	193	4	3	1	...	1
Total of Towns ...		3,179,621	148	552	10,917	24,647	7,082	21,031	82	40	1,289
Total for the Presidency ...		19,587,383	377	1,425	43,824	224,797	31,707	63,364	271	268	5,565

N. B.—Districts A in this statement do not include the population or deaths of

- continued.

			11	12	13										14
			All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.										No.
Snake-bite, or killed by wild beasts.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes.		
													For the year.	Mean of previous five years.	
...	...	28	404	2,309	...	.01	5.38	14.09	1.13	7.84	.40	5.84	34.70	33.73	96
...	...	5	...	100	...	...	.85	15.38	...	...	.85	...	17.08	...	97
...	...	2	26	340	...	...	39.62	6.32	.46	1.70	.31	4.01	52.41	...	98
...	...	2	55	160	...	...	5.95	11.56	...	...	.34	9.35	27.20	...	99
...	12	151	...	...	...	29.40	...	5.83	...	3.04	38.27	42.05	100
1	...	1	10	292	...	...	1.02	43.25	.41	13.18	.21	2.06	60.13	...	101
...	...	1	1	49	...	...	1.59	21.21	.53	1.59	.53	.53	25.98	...	102
...	...	3	36	395	...	...	4.39	30.26	.20	.70	.30	3.60	39.45	...	103
...	...	4	173	518	...	...	3.05	17.26	.06	.87	.25	10.73	32.23	34.10	104
...	...	6	15	193	...	...	...	26.73	.16	.48	.95	2.39	30.70	...	105
...	...	1	12	128	...	...	...	20.14	.55	.55	.18	2.22	23.66	...	106
...	...	2	30	132	...	...	.21	19.37	.21	1.26	.42	6.32	27.80	...	107
...	...	14	157	985	...	.03	3.24	16.44	1.23	2.38	.40	4.49	23.21	27.59	108
...	...	17	827	2,330	...	...	1.46	23.88	.52	1.69	.31	15.33	43.19	39.24	109
1	...	3	30	334	...	...	6.25	19.66	2.32	2.22	.30	3.02	33.67	...	110
...	...	1	2	217	...	...	.46	32.07	.15	...	.15	.31	33.13	...	111
...	...	2	93	334	...	...	3.44	17.02	.35	.26	.17	8.20	29.45	24.69	112
65	56	1,512	30,342	96,261	.05	.19	3.43	7.75	.2.23	6.61	.48	9.54	30.28	32.78	
1,797	212	8,113	133,006	511,613	.02	.07	2.24	11.48	1.62	3.23	.41	7.05	26.12	29.93	

Towns B. In all the other statements "Districts" include Towns.

ANNUAL FORM NO. XI.—DEATHS registered from RESPIRATORY DISEASES in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1915.

No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		TOTAL.												RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.			
		Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.		Male.	Female.	Total.
1	Western Registration District.	22	1,438	669	433	393	380	326	271	201	210	314	304	395	409	592	2,297	2,101	4,338	4,29	4,10	4,2	4,1	
2	East Khandesh...	10	1,006	523	156	152	103	126	90	61	72	107	116	130	168	236	877	711	1,588	2,99	2,47	2,7	2,5	
3	West Khandesh...	10	1,649	967	371	355	342	305	213	217	254	304	349	363	306	471	2,002	1,888	3,890	4,40	4,32	4,3	4,0	
4	Nasik	19	1,843	434	93	89	108	74	68	80	93	61	68	66	64	103	601	421	1,022	1,32	99	1,1	9	
5	Thana	17	1,843	434	93	89	108	74	68	80	93	61	68	66	64	103	601	421	1,022	1,32	99	1,1	9	
6	Kolaba	14	1,401	309	63	65	45	67	42	41	37	59	47	49	73	68	339	206	535	1,15	89	1,0	9	
6	City of Bombay... Central Registration District.	1	1	1	668	551	654	669	649	621	575	580	618	715	734	626	4,284	3,576	7,860	6,80	10,72	8,16	11,00	
7	Ahmednagar	15	1,348	914	312	327	375	306	263	262	315	348	300	373	384	519	1,646	2,138	4,084	4,10	4,50	4,33	3,9	
8	Poona	18	1,201	732	301	257	331	309	310	258	312	329	337	301	395	395	1,919	1,832	3,742	3,65	3,67	3,61	3,2	
9	Sholapur	10	718	353	122	114	126	122	102	100	53	125	125	196	215	242	782	885	1,670	2,00	2,36	2,17	1,7	
10	Satara	19	1,346	551	177	180	139	149	133	117	135	178	226	183	209	243	924	1,075	1,999	1,71	1,95	1,85	1,14	
11	Ratnagiri	15	1,311	785	390	365	379	342	297	201	209	307	326	326	370	370	2,216	1,672	4,028	4,00	2,79	3,35	2,10	
12	Southern Registration District.	15	1,070	600	264	227	257	210	214	194	207	233	218	269	278	364	1,454	1,434	2,918	3,10	3,09	3,10	2,6	
13	Belgaum	18	1,295	798	360	279	415	334	269	228	293	359	292	343	413	485	1,907	2,069	4,009	3,54	4,10	3,97	2,5	
14	Dharsar	13	1,122	646	173	163	164	203	149	129	163	195	168	187	254	362	1,239	1,003	2,303	2,86	2,40	2,67	1,5	
15	Kanara	10	1,265	221	64	35	52	26	28	28	43	46	31	32	44	62	280	214	494	1,23	1,02	1,15	1,0	
16	Gujarat Registration District.	12	760	634	422	421	397	442	345	340	294	382	368	397	457	541	2,085	2,141	4,826	6,29	6,55	7,83	6,8	
17	Surat	9	499	248	175	164	170	144	98	127	111	111	110	119	163	182	934	738	1,670	5,60	4,66	5,15	5,0	
18	Broach	9	499	248	175	164	170	144	98	127	111	111	110	119	163	182	934	738	1,670	5,60	4,66	5,15	5,0	
19	Kaira	15	636	606	459	439	446	423	376	430	409	393	378	334	430	464	2,832	2,164	4,996	7,65	6,73	7,22	6,5	
20	Panch Mahals	7	699	132	28	22	18	23	15	16	20	15	28	30	39	43	194	103	297	1,17	1,03	1,10	1,0	
20	Ahmedabad	13	689	324	323	307	347	351	323	239	250	231	325	297	492	462	2,221	1,898	4,069	5,14	4,66	4,91	5,2	
21	Sind Registration District.	16	605	65	131	125	127	134	118	97	62	44	75	75	92	102	682	450	1,162	2,35	2,12	2,25	1,6	
22	Karachi	11	864	79	101	106	88	43	49	87	24	43	34	33	51	60	349	331	674	1,01	1,22	1,10	8,5	
23	Hyderabad	13	901	145	60	55	70	45	29	13	12	4	7	11	17	54	232	143	360	1,08	1,17	1,08	1,6	
24	Thar and Parkar	9	721	46	19	24	16	1	2	4	1	3	4	3	5	4	63	34	99	2,27	1,21	1,2	1,2	
25	Nawabshah	15	737	30	15	11	18	9	7	4	4	3	4	3	...	...	63	26	79	1,15	1,09	1,12	1,0
26	Larkana	12	684	34	29	30	48	37	25	10	14	12	13	9	13	18	160	77	257	1,37	1,30	1,35	1,1	
27	Sukkur	7	422	41	8	7	7	8	9	10	6	4	8	5	4	8	55	27	82	1,38	1,23	1,31	1,0	
27	Upper Sind Frontier	7	422	41	8	7	7	8	9	10	6	4	8	5	4	8	55	27	82	1,38	1,23	1,31	1,0	
	Total for the Presidency	361	383	26,258	11,066	5,724	5,313	5,606	6,197	4,483	4,194	4,280	3,895	5,006	6,284	6,068	7,275	33,588	29,776	63,364	3,30	3,17	3,23	3,18

ANNUAL FORM NO. XII.—DEATHS registered from PLAGUE in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1915.

No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		TOTAL.												RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.			
		Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.		Male.	Female.	Total.
1	Western Registration District.	22	1,438	85	32	63	216	49	13	...	...	...	1	1	...	...	100	184	374	1,30	1,36	1,33	1,91
2	East Khandesh...	10	1,006	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	West Khandesh...	10	1,649	212	416	462	477	250	65	66	234	831	1,037	1,439	992	922	3,321	3,815	7,139	7,39	8,51	7,90	2,04	
4	Nasik	19	1,843	49	37	98	169	106	63	9	28	30	27	15	17	8	801	304	1,105	1,16	1,21	1,19	1,4	
5	Thana	17	1,843	49	37	98	169	106	63	9	28	30	27	15	17	8	801	304	1,105	1,16	1,21	1,19	1,4	
6	Kolaba	14	1,401	18	6	12	78	30	0	...	...	...	1	1	2	11	93	62	154	1,31	1,21	1,26	1,4
6	City of Bombay... Central Registration District.	1	1	1	7	17	159	131	93	40	31	28	22	24	26	441	163	608	1,70	1,47	1,59	3,10		
7	Ahmednagar	15	1,348	20	33	16	46	16	1	...	...	...	19	98	74	50	199	216	445	1,42	1,39	1,47	1,1
8	Poona	18	1,201	71	249	351	137	46	14	...	...	...	11	69	150	334	339	351	1,338	1,60	1,86	1,73	1,3
9	Sholapur	10	718	190	31	166	492	110	35	19	272	533	1,313	2,063	2,450	3,855	3,911	7,709	9,15	10,30	2,10
10	Satara	19	1,346	130	170	181	250	92	50	...	...	...	164	240	493	639	517	1,107	1,328	3,033	3,17	3,65	3,40
11	Ratnagiri	15	1,311	4	0	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
12	Southern Registration District.	15	1,070	236	399	357	458	273	166	231	725	1,422	1,740	1,770	1,548	927	4,636	4,830	9,526	9,81	10,42	10,11	6,1	
13	Belgaum	18	1,295	304	394	240	304	93	123	168	466	916	948	770	747	768	3,049	2,927	6,076	5,86	6,84	6,33	10,3	
14	Dharsar	13	1,122	7	37	37	23	1	5	10	43	188	306	447	622	669	1,09	1,21	1,12	6,0
15	Kanara	10	1,265	3	...	...	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...
16	Gujarat Registration District.	12	760	47	20	82	121	158	44	10	7	42	102	158	227	130	612	631	1,143	1,87	1,62	1,75	1,4	
17	Surat	9	499	17	15	37	100	74	9	...	...	...	...	...	...	...	110	125	235	1,20	1,11	1,15	1,0
18	Broach	9	499	17	15	37	100	74	9	...	...	...	...	...	...	...	110	125	235	1,20	1,11	1,15	1,0
19	Kaira	15	636	9	1	15	21	15	...	...	...	...	11	19	20	2	69	48	108	1,09	1,05	1,07	1,1
20	Panch Mahals	7	699	6	21	14	44	9	...	...	...	...	...	...	...	...	94	41	135	1,27	1,24	1,25	1,1
20	Ahmedabad	13	689	6	14	3	1	6	1	...	...	...	...	...	...	...	13	13	26	1,03	1,03	1,03	1,0
21	Sind Registration District.	16	605	26	21	53	158	411	401	234	22	10	23	12	12									