

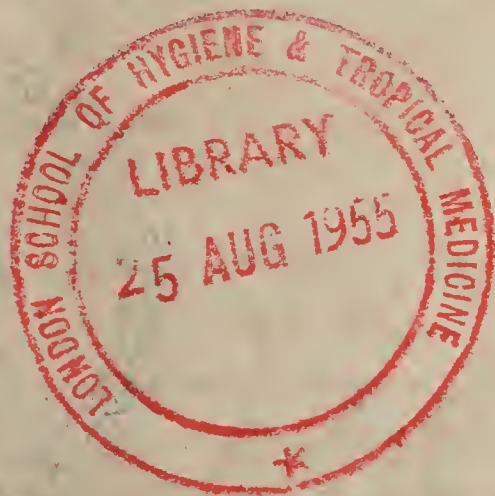
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Annual Report on Public Health in Sind

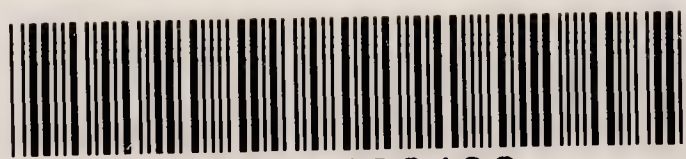
For the year 1940.



[Price: Rs. 2-8-0.]

KARACHI:
PRINTED AT THE GOVERNMENT PRESS
1942

Copies obtainable from the Manager, Sind Government Book Depot
and Record Office, Karachi (Saddar).



22501426436

ANNUAL REPORT ON PUBLIC HEALTH, 1940.

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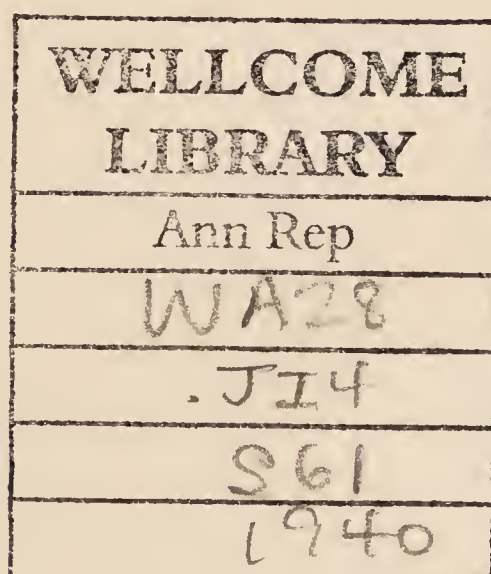
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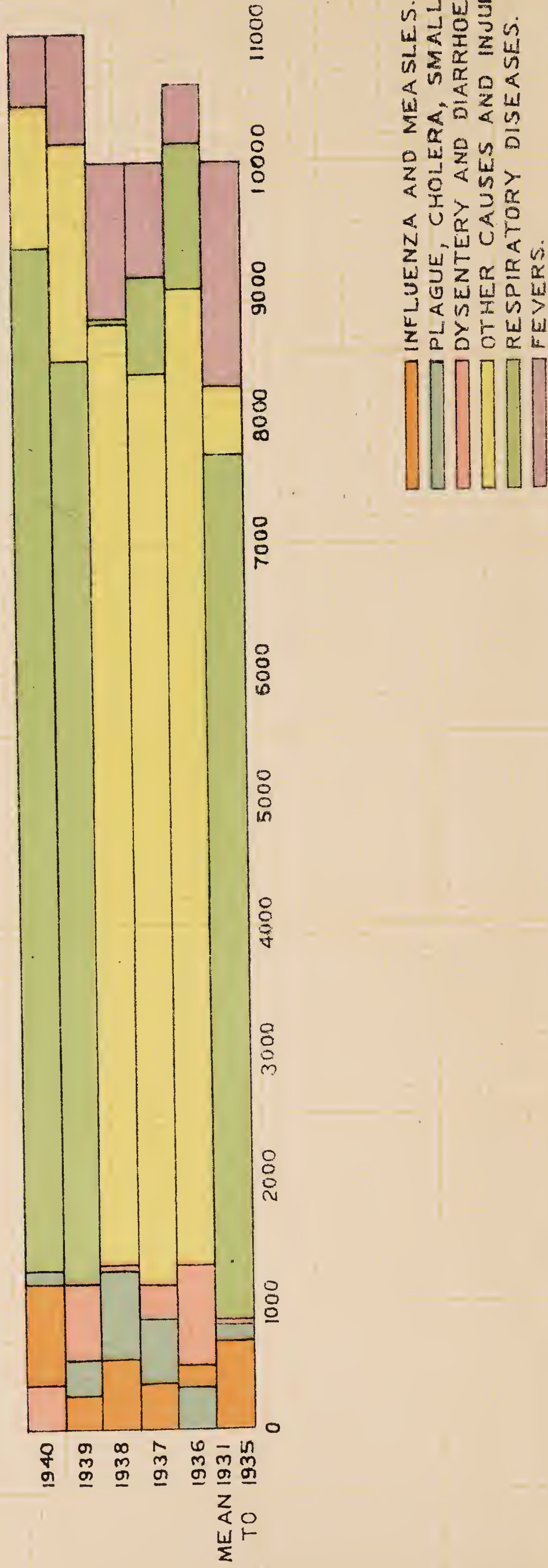




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CHART I DEATHS IN 1940 AND PREVIOUS YEARS



Annual Report on Public Health for 1940.

CHAPTER I.

METEOROLOGY : ECONOMIC CONDITIONS, *i.e.*, PRICES OF FOOD, GRAINS, ETC.

1. *Rainfall.*—

(a) *Cold Weather Period* (January and February).—The total rainfall over Sind for the months of January and February was in large excess. The cloud amount was normal. Humidity was in excess. The temperatures were generally above normal.

(b) *Hot weather Period* (March-May).—The rainfall was in large excess in March, in large defect in April and in moderate excess in May. Taking the hot weather period as a whole, the rainfall was in moderate excess. Cloud amount was in excess. The maximum temperature was below normal in March and the minimum was below normal in April.

(c) *South West Monsoon Period* (June-September).—Taking the whole period the rainfall was in slight defect. The maximum temperature was in defect in June. The humidity and cloud amount were normal.

(d) *Retreating Monsoon Period* (October-December).—Temperatures were above normal during the whole period. Humidity and cloud amounts were normal. The total rainfall during the year was 5.95" and was 4 per cent. below the average*.

2. *Economic Conditions.*—The economic conditions in the province differ in respect of each district. The prices of agricultural produce had risen, but this rise was not commensurate with the rise in the prices of manufactured articles. The conditions of the agricultural classes therefore may not have improved appreciably. The wage earners had also been affected as there had been practically no rise in wages to compensate for the rise in prices of the essential commodities.

On account of war, the maritime and inland trade having been affected, the mercantile community had on the whole been hit hard. The slump in trade had also reacted unfavourably on the employment problem with the result that there had been acute distress among the educated and uneducated unemployed. In Karachi the construction of many works by the Military, however, helped the labouring classes.

The Collector of Sukkur remarks that communal disturbances over-shadowed the whole of the district and this naturally had some effect on the economic condition of the agriculturists.

*Forty Years' Average.

The following is the summary of Famine Conditions in the Desert Tract during the year 1940 :—

The crops grown on the rains of 1940 failed except in a few scattered makans in which too they had been very much below the normal. The small villages and hamlets were generally deserted and the people migrated to Sind where they could find labour for their support.

Most of the bovine cattle died in 1939. It is not possible to give accurate figures of mortality but according to the cattle census of January, 1940, 62 per cent. died in taluka Mithi, 18 per cent. in Diplo, 12 per cent. in Nagar Parkar and 56 per cent. in taluka Chachro on account of starvation. The following measures of relief were continued during the year :—

(1) *Cheap grain shops.*—23 cheap grain shops were opened. Rs. 33,000 were invested in these. The grain was purchased by the Mukhtiarkars and sold at annas 0-4-0 per maund below the market rate. The total loss incurred on this concern was about Rs. 17,000.

(2) *Provision of labour.*—Before setting in of the monsoon 150 tarais were excavated at a cost of Rs. 40,000. About 3,000 labourers were working per day.

(3) *Free cash doles.*—The old and infirm, the females and children who were unable to work or had no one to support them were put on the free doles at a total cost of Rs. 10,000. About 1,300 persons were put on this free dole.

(4) *Taccavi Advances.*—Taccavi was distributed freely for maintenance and purchase of grain at the Government shops. The amount given for maintenance was Rs. 50,000. In addition, Rs. 1,00,000 were given for the purchase of seed and cattle for cultivation purposes. The crop having failed, the repayment of the loans had been postponed to the next year.

CHAPTER II.

VITAL STATISTICS (INCLUDING POPULATION, EMIGRATION AND IMMIGRATION).

1. The Province of Sind comprises 8 Revenue Collectorates (including the City of Karachi). There were 61 Rural Circles (talukas and mahals), 26 Town Circles and 3 Cantonments. These divisions are shown in Appendix II to this Report.

2. *Emigration and Immigration.*—Skilled workers emigrated from the port of Karachi mainly to Iran, Baherin, Iraq, Ceylon, America, Africa, Strait Settlements, Japan and China. Due to International situation emigration was for a period reduced, but later almost normal conditions prevailed.

The bulk of emigrants registered at the port of Karachi, was recruited by Sind Works Merchants and were mainly drawn from Sind. They proceeded abroad under agreements approved by Government. The minimum pay permitted must not be less than Rs. 30 but the maximum is sometimes as much as Rs. 400.

The health of the emigrants proceeding abroad and those who returned was, it is stated, generally good. The number of emigrants registered at the port of Karachi was 419 in 1940.

No immigration was reported to have occurred.

3. *Population*.—The birth and death rates are calculated on the population as recorded at the census of 1931. According to this census, the population of the province is 38,76,388 and is distributed as follows:—

Rural Circles	...	...	31,91,186
Town Circles	...	...	6,72,432
Cantonments	...	...	12,770

This population is inclusive of the figures for Europeans and Anglo Indians. Separate information by localities for these communities is not available.

Estimated Population.—In accordance with the Government of India, Department of Education, Health and Lands, letter No. F.-96-43/32-H., dated the 15th August 1932, the estimated population for the year 1939 for the province by Collectorates and the birth and death rates calculated thereon are shown in the following table:—

Name of Collectorate.	Census population 1921.	Census population 1931.	Estimated population 1940 (mid year).	Birth rate based on population of 1931.	Birth rate based on estimated population 1940 (mid year).	Death rate based on population of 1931.	Death rate based on estimated population 1940 (mid year).
1	2	3	4	5	6	7	8
Karachi ..	..	5,79,432	..	33·47	..	17·27	..
Dadu ..	..	3,34,282	..	20·18	..	10·52	..
Larkana ..	..	4,52,141	..	22·36	..	14·94	..
Upper Sind Frontier.	..	2,60,326	..	13·03	..	8·73	..
Hyderabad ..	5,73,540	6,61,776	7,44,208	13·95	12·54	12·68	11·28
Nawabshah ..	4,18,660	4,96,612	5,69,365	19·65	17·14	12·50	10·89
Thar Parkar ..	3,96,331	4,68,040	5,34,969	17·81	15·58	16·70	14·61
Sukkur ..	5,10,292	6,23,779	7,29,703	24·26	20·7	13·44	11·49
Sind Total ..	32,79,377	38,76,388	44,33,597	16		13·77	12·03

The estimated population for the first Collectorates, *viz.*, Karachi, Dadu, Larkana and Upper Sind Frontier and the birth and the death rates based thereon could not be worked out on account of the territorial changes that took place in these Collectorates in 1931.

The birth and death rates on the estimated population for the year 1940 (mid-year) were 18.49 and 12.03 as compared with 18.52 and 10.23 respectively, in the year 1939.

4. *Changes in Area.*—No territorial changes took place during the year under report.

EUROPEAN AND ANGLO INDIAN VITAL STATISTICS.

Vital statistics figures for Europeans and Anglo Indians have been included in the Christian group and have been incorporated with those for other communities. This has been done in accordance with the Note by the Public Health Commissioner with the Government of India which has been commended to the Government of Sind by the Government of India in their letter No. F.-45-14(7)-39-H., Department of Education, Health and Lands, dated the 3rd February 1940.

VITAL STATISTICS.

2. *Births.*—The number of live births recorded in the Province during the year was 81,992 as against 80,946 in 1939 indicating an increase of 1,046. Compared with the recorded birth in 1938 (77,269) the figures for the year under report show an appreciable rise of 4,723.

The number of births registered in the past 8 years and the three previous decades and the corresponding birth rates were:—

Years.				Number of births.	Birth rate.
1901-10 (Mean)	..	..	..	66,578	20.77
1911-20 ( , , )	..	..	..	71,306	20.33
1921-30 ( , , )	..	..	..	73,693	22.57
1931	..	..	..	88,261	22.77
1932	..	..	..	77,976	20.11
1933	..	..	..	77,789	20.07
1934	..	..	..	75,729	19.53
1935	..	..	..	78,843	20.33
1936	..	..	..	79,536	20.52
1937	..	..	..	77,389	.. 19.96
1938	..	..	..	77,269	19.93
1939	..	..	..	80,946	20.88
1940	..	..	..	81,992	21.55

3. *Provincial birth-rate compared with birth-rates of other provinces.*—The birth rate of Sind compared with that of the other provinces in India is shown in the following table :—

Province.					1939.	1940.
Madras	..	..	..	..	38·53	38·65
Bengal	..	..	..	..	33·02	33·70
Assam	..	..	..	..	29·92	28·21
Bihar	..	..	..	..	33·30	30·80
Orissa	..	..	..	..	34·92	35·85
United Provinces	..	..	..	..	36·26	34·78
Punjab	..	..	..	..	40·82	40·62
Central Provinces	..	..	..	..	38·28	37·58
Bombay	..	..	..	..	42·22	42·07
North-West Frontier	..	..	..	..	30·35	29·87
Sind	..	..	..	..	20·88	21·15

As usual the birth rate in the Province was low as compared with that in other provinces.

4. *Birth-rates in Collectorates.*—The highest birth-rate was recorded in Karachi district (33·47). This is usual as such a high rate is due to the inclusion of the figures for the City of Karachi. The lowest birth-rate was recorded in Upper Sind Frontier district (13·03) as was the case in the previous year. Of the remaining districts, three returned a birth-rate of between 20 and 30 per mille of population and the rest of the three recorded birth rates between 10 and 20.

The details of births and birth rate in Collectorates are shown in Annual Form No. 1, Appendix III to this Report.

5. *Birth-rates in rural areas.*—The birth rate in rural areas was 16·65 as compared with 16·61 in the previous year. The registered live births during the years 1940 and 1939 were 53,108 and 52,994 respectively.

Of the 61 talukas and mahals, one returned a birth rate of between 30 and 40 per mille of population, 19 between 20 and 30, 14 between 15 and 20, 20 between 10 and 15 and the remaining 7 under 10. The highest rate was recorded in Kakar taluka in Dadu District (32·15) and the next in order was Jamesabad taluka in Thar Parkar District (26·99). The lowest birth-rate was record-

ed in Tatta taiuka in Karachi District (5.85) as was the case in the past two years.

6. *Births and birth-rates in urban areas.*—The number of births recorded during the year was 28,884 as against 27,952 in the previous year. The corresponding birth-rates were 42.16 and 40.79 respectively.

7. *Births and birth-rates in Karachi City.*—15,246 births were recorded in the City of Karachi as against 14,578 in the previous year, indicating the birth rates of 61.52 and 58.83 respectively.

8. *Births and birth rates in Cantonments.*—The number of births and the birth-rates during the year under report compared with the previous year are shown in the following table:—

Cantonment.	1940.		1939.	
	Number of births.	Birth-rate.	Number of births.	Birth-rate.
Karachi	422	67.63	373	59.77
Drigh Road	15	7.50	29	14.50
Hyderabad	41	9.05	53	11.70

9. *Births according to sex.*—The number of male and female births was 45,629 and 36,363 respectively. The number of males born to every 100 females born was 125.48 as compared with 125.76 in 1939.

10. *Still births.*—The number of still births registered was 1,157 as against 1,033 in the previous year, the percentage to live births being 1.41 and 1.28 respectively. The percentages varied from 0.06 in Thar Parkar District to 2.75 in Karachi district. Distribution of still births by class, sex and collectorates is shown in Annual Form No. I-A (Appendix III).

11. *Verification of vital statistics.*—3,145 unrecorded births were detected during the year under report. These omissions were brought to the notice of the Revenue Officers and the Municipal authorities concerned for necessary action.

12. *Deaths.*—There was a marked increase in the number of recorded deaths which rose from 44,779 in 1939 to 53,360 in 1940, giving the death-rates of 11.55 and 13.77 respectively. The average number of deaths during the five years ending 1939 was 47,079 or a mean ratio of 12.15 (Graph No. I).

The following table shows the number of deaths registered in the previous years :—

Year.					Deaths.	Death-rate.
1901-10 (Mean)	..	..	..	..	68,335	21·62
1911-20 ( , , )	..	..	..	..	94,320	26·89
1921-30 ( , , )	..	..	..	..	56,174	17·23
1931	..	..	..	..	46,714	12·05
1932	..	..	..	..	59,067	15·23
1933	..	..	..	..	54,239	13·99
1934	..	..	..	..	48,489	12·51
1935	..	..	..	..	47,249	12·19
1936	..	..	..	..	48,425	12·49
1937	..	..	..	..	46,860	12·09
1938	..	..	..	..	48,085	12·40
1939	..	..	..	..	44,779	11·55
1940	..	..	..	..	53,360	13·77

13. *Death-rate as compared with those in other provinces.*—The death-rate of Sind compared with those in other provinces in India, is shown in the following table :—

Province.					1939.	1940.
Madras	..	—	..	..	25·26	24·96
Bengal	..	..	..	..	21·85	22·26
Assam	..	..	..	..	22·42	17·20
Bihar	..	..	..	..	23·00	19·10
Orissa	..	..	..	..	28·18	24·72
Punjab	..	..	..	..	20·15	23·70
Central Provinces	..	..	..	..	31·07	30·30
United Provinces	..	..	..	..	23·09	21·78
Bombay	..	..	..	..	27·55	27·91
North-West Frontier	..	..	..	..	18·74	21·60
Sind	..	..	..	..	11·55	13·77

14. *Death-rate in Collectorates.*—The following table shows the death-rates recorded in Collectorates during 1939 and 1940 compared with the quinquennial mean:—

Collectorates.	Death-rate. 1939.	Death-rate 1940.	Quinquennial mean.
Karachi	16.05	17.27	16.53
Hyderabad	11.08	12.68	11.82
Nawabshah	9.08	12.50	9.90
Thar Parkar	14.11	16.70	12.71
Larkana	10.97	14.94	11.67
Dadu	9.29	10.52	9.98
Sukkur	11.52	13.44	13.29
Upper Sind Frontier ..	6.86	8.73	7.73
Total ..	11.55	13.77	12.15

15. *Death-rates in rural areas.*—The recorded death-rate for rural areas was 11.54 as compared with 9.72 in the preceding year.

Of the 61 talukas and mahals 3 recorded a death-rate of between 20 and 30 per mille of population, 35 between 10 and 20 and the remaining 23 below 10. The highest death-rate was recorded in Chachro taluka in Thar Parkar District (22.57) as was the case in the previous year (19.14) and the lowest in taluka Kandhkot in Upper Sind Frontier District (4.99).

16. *Death-rates in urban areas.*—The recorded death-rate in urban areas was 24.12 as against 20.11 in the previous year. Of the 26 town registration circles, one recorded a death-rate of 45.14 per mille of population, 4 between 30 and 40, 5 between 20 and 30, and the rest below 20.

17. *Death-rates in Cantonments.*—The death-rates recorded in the Cantonments were:—

Karachi 19.87; Drigh Road 3.00 and Hyderabad 3.09.

18. *Excess of births over deaths.*—The excess of births over deaths was 28,632 as compared with 36,167 in the previous year.

19. *Deaths according to sex.*—During the year under report the male and female deaths were 29,618 and 23,742 respectively and the corresponding male and female death-rates were 13.63 and

13.94. In the year 1939, the number of deaths recorded among males and females was 25,394 and 19,385 showing the respective death-rates of 11.69 and 11.38. The number of deaths of males to every 100 deaths of females was 124.74 as compared with 131.00 in the previous year.

20. *Deaths by caste of classes and by sex.*—These are recorded in Annual Form No. V (Appendix III).

21. *Deaths according to causes compared with previous years.* These are shown in the following table :—

Causes of death.	1939.		1940.		Mean of 5 years.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
Cholera	3	0.0008	227	0.06	80	0.02
Small-pox	565	0.15	1,008	0.26	637	0.16
Plague .. ..	..	..	..	..	4	0.001
Fevers	23,973	6.18	29,260	7.55	27,149	7.01
Dysentery and Diarrhoea.	1,150	0.30	1,131	0.29	1,172	0.30
Respiratory Diseases. ..	8,444	2.18	9,320	2.40	9,036	2.33
Injuries	966	0.25	768	0.20	872	0.22
Other Causes	9,678	2.49	11,646	3.01	8,130	2.10
Total	44,779	11.55	53,360	13.77	40,079	12.15

Graphs showing the incidence of deaths due to the chief causes for the year under report, compared with the previous years, are shown in Charts I and IV. Graphs showing the annual incidence of deaths due to chief epidemic diseases, *viz.*, cholera, small-pox and plague are shown in Chart No. VII.

22. *Infant mortality.*—The number of deaths among infants under one year of age was 9,478 as against 8,560 in the previous year. The respective infant mortality rates were 115.70 and 105.75. The male and female infant mortality rates were 112.27 and 120.01 respectively as compared with 105.30 and 106.32 respectively in the previous year. The distribution of deaths among the various age groups under one year and the percentage compared with the

corresponding figures of the previous year are shown in the following table :—

Age groups.	1939.		1940.	
	Total deaths.	Percentage.	Total deaths.	Percentage.
Under 1 week ..	1,784	20.84	1,769	18.65
1 week to 1 month ..	1,560	18.22	1,552	16.38
1 to 6 months ..	3,217	37.58	3,487	36.78
6 to 12 months ..	1,999	23.35	2,679	28.24

23. *Infant mortality in the Province.*—The following table shows the details of the infant mortality rates in the various provinces in British India :—

Province.	1939.	1940.
Madras	175.50	168.66
Bengal	146.65	159.28
United Provinces	139.45	135.34
Punjab	167.57	178.22
Central Provinces	218.62	226.07
Bombay	152.70	169.36
Bihar	155.30	150.60
Orisas	197.41	183.09
Assam	167.64	141.75
North-West Frontier	130.52	144.17
Sind	105.75	115.70

24. *Infant mortality in urban and rural areas.*—The infant mortality rates per 1,000 registered births for urban and rural areas were 155.73 and 93.94 respectively as against 138.59 and 88.25 in the previous year. The infant mortality rate during the year under report compared with that of the previous years is

240

200

160

120

80

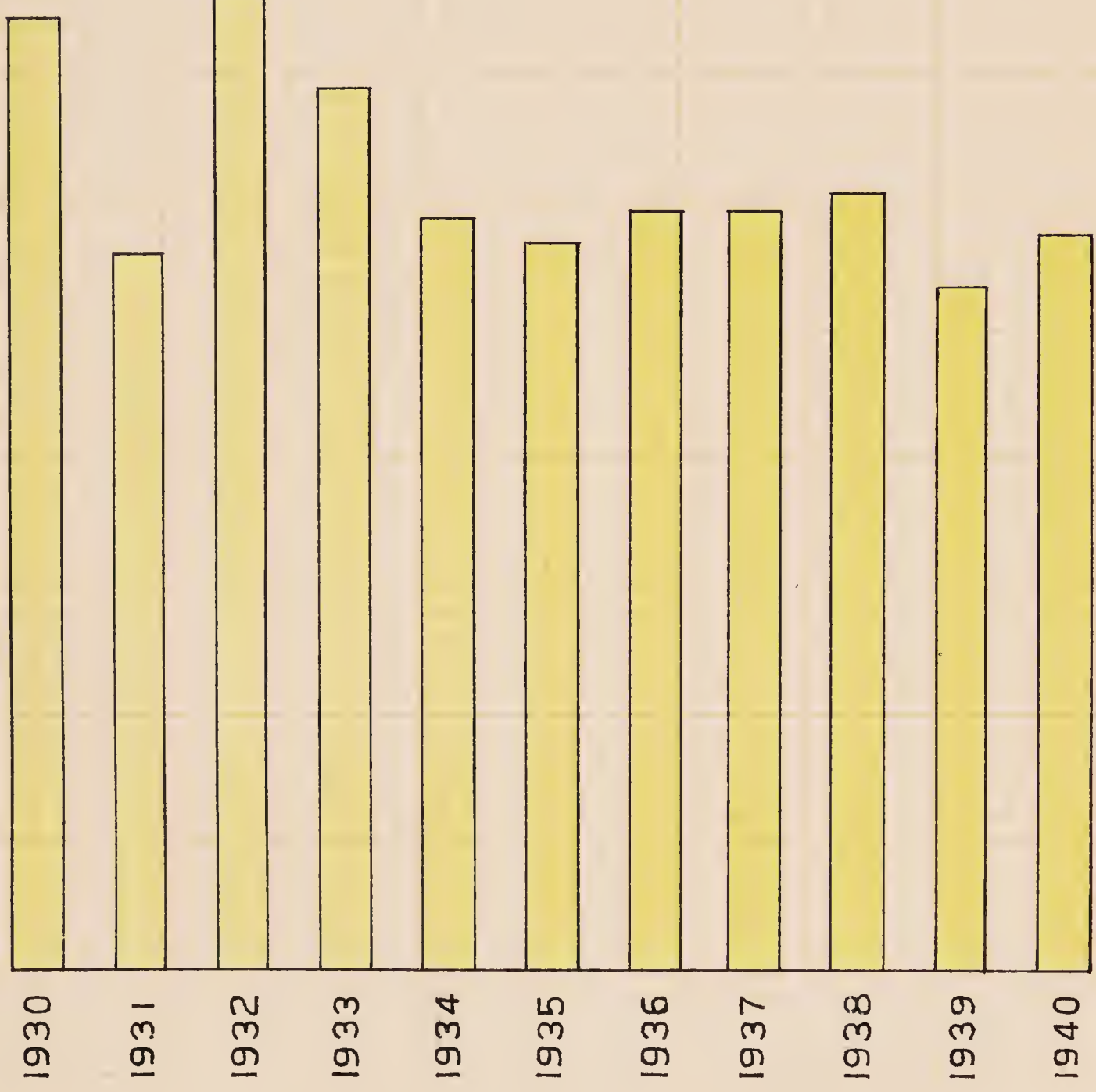
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CHART III

SHOWING INFANT MORTALITY RATE IN
THE PROVINCE OF SIND FROM 1930 TO 1940.



shown in the following table :—

Year.	Deaths under 12 months.			Births registered.			Infant death-rate per 1,000 births.			Infant deaths per 1,000 deaths.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Femlae.	Total.	
1940 ..	5,123	4,364	9,487	45,629	36,363	81,992	112.27	120.01	113.70	177.79
1939 ..	4,748	3,812	8,560	45,091	35,855	80,946	105.30	106.32	105.75	191.16
1938 ..	5,191	4,184	9,375	43,445	33,824	77,269	119.48	123.70	121.33	192.88
1937 ..	5,024	4,110	9,134	43,098	34,291	77,389	116.57	119.85	118.02	194.92
1936 ..	5,227	4,422	9,649	44,175	35,361	79,536	118.32	125.05	121.31	199.26
1935 ..	4,917	4,023	8,940	44,024	34,819	78,843	111.69	115.54	113.01	189.21
1934 ..	4,776	3,984	8,760	42,012	33,717	75,729	118.77	118.10	117.67	180.66
1933 ..	6,019	5,060	11,079	43,639	34,150	77,789	137.01	148.11	142.42	204.26
1932 ..	6,509	5,407	11,916	43,432	34,544	77,976	149.61	155.66	152.82	201.73
1931 ..	5,381	4,476	9,857	48,800	39,461	88,261	110.27	113.43	111.68	211.01
1930 ..	5,664	4,690	10,354	38,374	30,892	69,266	147.60	151.82	149.48	176.24
1929 ..	8,889	7,897	16,786	44,744	35,394	80,138	198.66	223.12	209.46	295.49
1928 ..	6,411	5,144	11,555	44,968	35,354	80,322	142.57	145.49	143.85	212.76

High infant mortality rates were recorded in the following urban areas :—

Tando Mahomed Khan	...	...	465.75
Nasarpur	...	...	323.53
Nawabshah	...	...	317.90
Ghotki	...	...	316.08
Hyderabad	...	...	259.07
Ratodero	...	...	213.67

Among rural circles, the highest infant mortality rate was recorded in Hyderabad District (115.22) and the lowest in Dadu district (66.77).

The details of infant mortality rates in urban and rural areas are given in Annual Form No. VI (a), Appendix III.

25. SUMMARY OF VITAL STATISTICS OF THE CHIEF TOWNS.

Karachi City.—Population 247,791 (1931 census). The number of births recorded in the City of Karachi increased from 14,578 in 1939 to 15,246 in 1940. The birth-rate during the year under report was 61.52 as against 58.83 in the previous year.

There was an increase of 676 in the recorded deaths. The total deaths numbered 6,923 as against 6,247 in the preceding year showing the death-rates of 27.94 and 25.21 respectively. The infant mortality rate was 136.75 as compared with 135.68 in the previous year.

Hyderabad town.—Population 96,021 (1931 Census). The registered births numbered 3,806 giving a birth-rate of 39.64 as compared with 4,035 and 42.03 respectively in 1939. The number of deaths during the year under report was 3,175 or a death-rate of 33.06 as against 2,544 deaths or a death-rate of 26.49 in the previous year. The infant mortality rates during the years 1940 and 1939 were 259.07 and 182.40 respectively.

Sukkur town.—Population 69,277 (1931 Census). Total births recorded were 2,678 giving a birth-rate of 38.65 as compared with 2,590 births and a birth-rate of 37.39 in the previous year. The number of deaths registered was 954 corresponding to a death-rate of 13.77 as against 847 deaths and a death-rate of 12.24. The infant mortality rate was 91.49 as compared with 71.43 in the previous year.

Shikarpur town.—Population 62,505 (1931 Census). 2,052 births giving a birth-rate of 32.82 were recorded during the year under report compared with 2,179 births and a birth-rate of 34.86 in the previous year. The number of deaths registered was 1,629 as against 1,369 in 1939. The death-rates for the years 1940 and 1939 were 26.06 and 21.90. The infant mortality rate was 198.83 as against 179.90 in the previous year.

Larkana town.—Population 26,841 (1931 Census). The registered births numbered 934 being equivalent to a birth-rate of 34.80 as compared with 926 births and a birth-rate of 34.50 in the previous year. The number of deaths was 532 or a death-rate of 19.82 as against 439 or a death-rate of 16.36 in the past year. The infant mortality rate was 111.35 as compared with 105.83 in the previous year.

The principal groups under which deaths were recorded in these towns are shown in the following table:—

Name of the town.	Cholera.				Small-pox.				Fevers.			
	1940.		1939.		1940.		1939.		1940.		1939.	
	No. of deaths.	Death rate.	No. of deaths.	Death rate.	No. of deaths.	Death rate.	No. of deaths.	Death rate.	No. of deaths.	Death rate.	No. of deaths.	Death rate.
Karachi ..	29	0.12	..	..	21	0.08	12	0.05	316	1.28	179	0.73
Hyderabad ..	1	0.01	..	..	304	3.17	34	0.35	296	3.08	401	4.17
Sukkur ..	..	..	..	..	..	..	..	..	118	1.70	118	1.70
Shikarpur ..	..	..	..	..	..	..	..	..	984	15.74	532	8.50
Larkana ..	..	..	..	..	..	..	..	..	249	9.28	166	6.19

Name of the town.	Dysentery and Diarrhoea.				Respiratory Disease.				All other causes.			
	1940.		1939.		1940.		1939.		1940.		1939.	
	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.	No. of deaths.	Death-rate.
Karachi ..	597	2.41	628	2.53	2,957	11.93	2,664	10.75	2,921	11.79	2,651	10.70
Hyderabad ..	92	0.95	61	0.64	1,230	12.81	697	7.26	1,204	12.54	1,297	13.51
Sukkur ..	144	2.08	197	2.85	342	4.94	255	3.68	335	4.83	243	3.51
Shikarpur ..	24	0.38	17	0.27	175	2.80	166	2.67	431	6.90	613	9.80
Larkana ..	9	0.34	10	0.37	78	2.90	94	3.50	192	7.15	165	6.15

26. *Vital Statistics—General Remarks.*—The Public Health Commissioner with the Government of India, in his report for the year 1938, makes the following remarks:—

“Inaccuracy of registration is mainly responsible for the low rate of 18 per mille (Sind). In the first place birth rates well over 40 per mille have been recorded, as may be seen from this table, in the Punjab and Delhi. Secondly careful investigations carried out in Madras Presidency have shown that the average rate for the Province is in the neighbourhood of 42 per mille. It is therefore almost certain that defective registration is responsible for the low rate recorded in Sind. In this Province, since its creation in 1936, the birth rates were 19, 18 and 18 per mille for the successive years 1936, 1937 and 1938. This question deserves therefore careful investigation by the health authorities of that Province.”

In the absence of an adequate public health staff in rural areas, the question of making improvements in the registration of vital statistics presents difficulties. A scheme in this respect has been submitted to the Government which is receiving their attention.

Every effort is being made to impress upon Municipalities the importance of improving the registration of vital statistics. As it would not be possible for the small Municipalities to appoint medical registrars of births and deaths, a simple suggestion has been made to some of the Municipalities. According to this, the appointment of a ‘Registration Karkoon’ is contemplated. The suggestion has been accepted by three Municipalities, *viz.*, Tando Adam, Kambar and Jacobabad. Marked improvement has been

noticed in the recorded number of births in these towns compared with the previous year as can be seen from the following:—

Name of the Municipality.	Date of appointment of the 'Registration Karkoon'.	Number of births.	
		1939.	1940.
Tando Adam	July 1940	276	591
Kamba	October 1940	218	288
Jacobabad	November 1940	164	234

CHAPTER III.

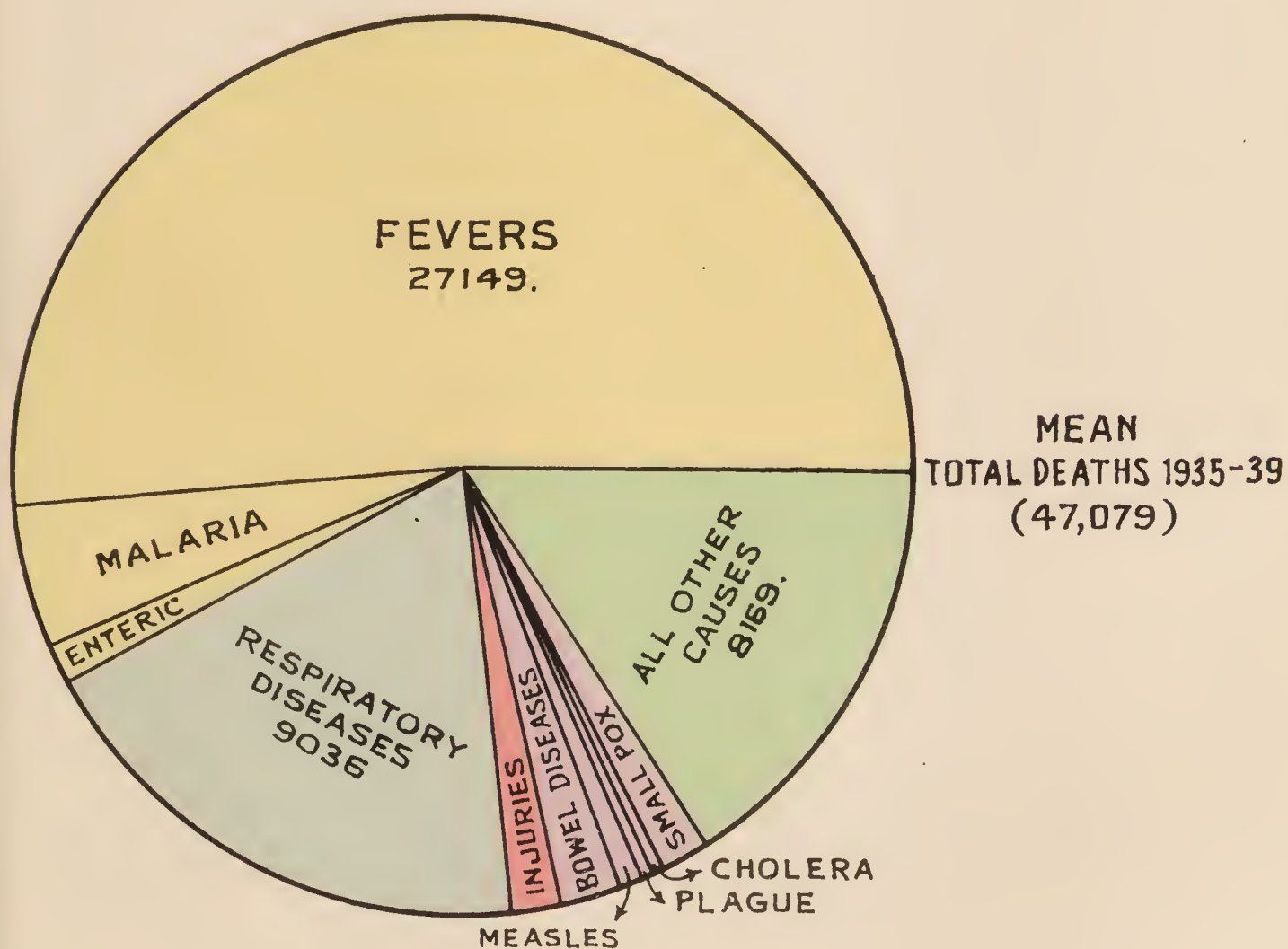
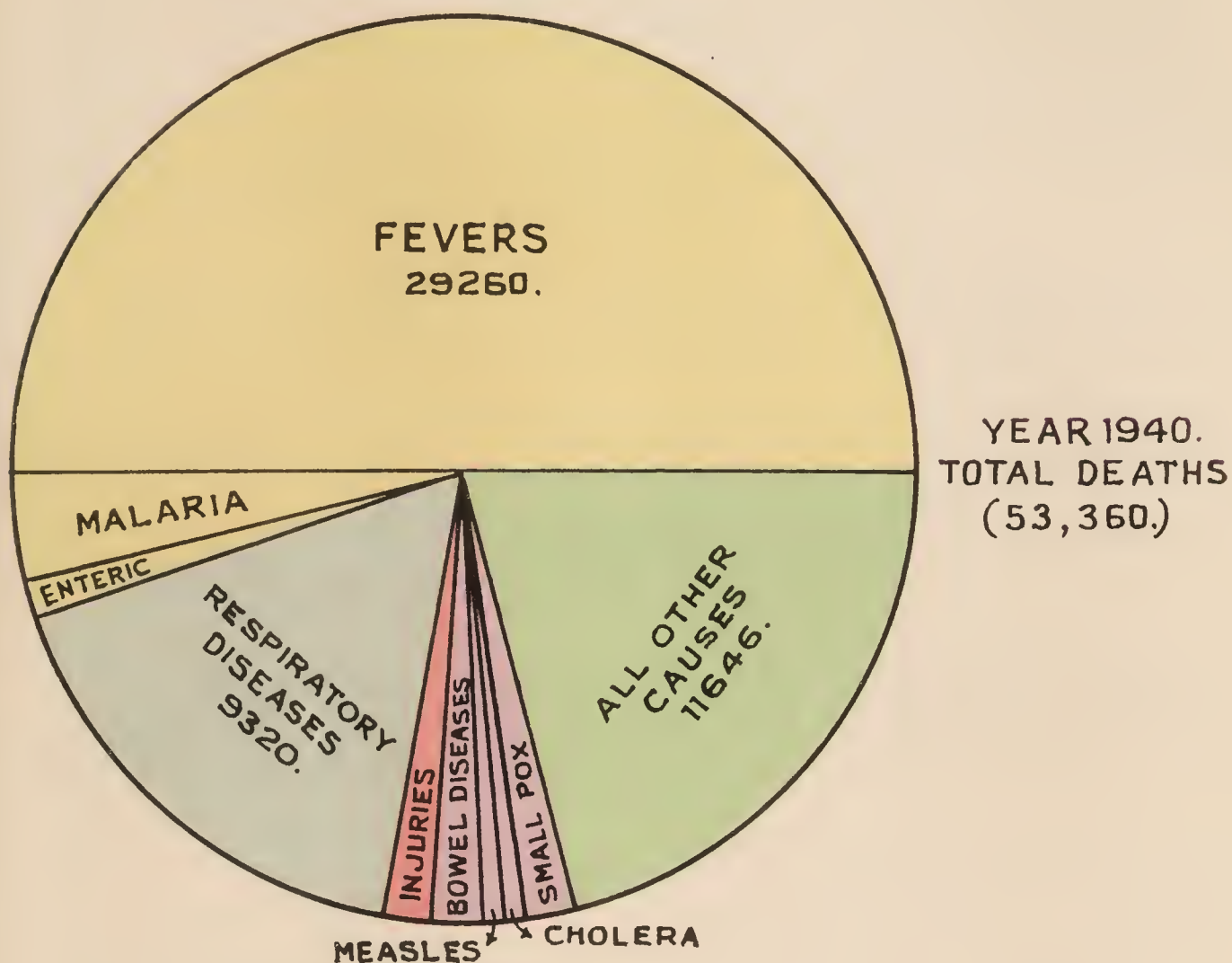
THE STATE OF PUBLIC HEALTH IN THE PROVINCE AND HISTORY OF CHIEF DISEASES.

1. *General Remarks on the Health of the Province.*—The state of health in the Province during the year 1940 does not compare favourably with that of 1939, the number of births recorded was 81,992 showing an increase of 1,046 over the recorded births in the year 1939 and an increase of 4,723 over the figures for the year 1938. But there was a rise in the number of recorded deaths which rose from 44,779 in the year 1939 to 53,360 in the year 1940, showing an increase of 8,581. The mortality under the heading "Fevers" alone showed an increase of 5,287 over that recorded in the previous year. The other heading under which appreciable increase in the mortality was recorded, was "All Other Causes". 1,968 more deaths were registered than those in the previous year. Except in the case of deaths due to 'Dysentery and Diarrhoea' and 'Injuries' increased mortality was recorded in all the principal groups under which vital statistics are shown. The death-rate for the Province during the year under report was 13.77 as compared with 11.55 in the previous year and 12.15 in the past five years ending 1939.

Cholera prevailed in all districts except the districts of Sukkur and Upper Sind Frontier. 354 cases of, and 227 deaths from cholera were reported as against 6 cases and 3 deaths in the previous year.

All districts in the Province were affected by small-pox, the most affected being Hyderabad where out of 1,253 cases 432 proved fatal. The total number of deaths in the Province during the year under review was 1,008 as compared with 565 in the preceding year.

CHART IV
COMPARATIVE DIAGRAMS OF DEATHS BY CAUSES
FOR MEAN 1935 - 38 AND 1940.



2 deaths from Influenza were reported as against 3 deaths in the previous year.

2. *Fevers. (General Prevalence).*—This has been rightly characterised by the Public Health Commissioner with the Government of India, in his Annual Report for the year 1938 as 'the omnibus group of diseases'. The mortality under the heading rose from 23,973 in 1939 to 29,260 in 1940, and 27,149 in the quinquennium ending 1939. For these periods the corresponding death-rates were 7.55, 6.18 and 7.01.

Fevers accounted for 54.46 per cent. of the total deaths recorded in the Province from all causes. This is due to the often repeated lack of public health staff in rural areas. Incidence of malaria has increased in the Province and it is probable that many deaths that may have occurred due to malaria may have been included under the main heading 'Fevers'.

3. *Fever mortality in the previous years.*—The number of deaths and the death-rates due to fevers for the previous ten years are shown in the following table :—

Year.					Number of deaths.	Death-rate.
1930	..	..	..	..	42,426	13.01
1931	..	..	..	..	31,080	8.02
1932	..	..	..	..	39,728	10.25
1933	..	..	..	..	35,742	9.22
1934	..	..	..	..	32,147	8.29
1935	..	..	..	..	28,713	7.41
1936	..	..	..	..	27,679	7.14
1937	..	..	..	..	27,410	7.07
1938	..	..	..	..	27,970	7.22
1939	..	..	..	..	23,973	6.18
1940	..	..	..	..	29,260	7.55

Distribution of fever deaths is shown in Annual Form No. X (Appendix III).

4. Death-rates from fevers in Collectorates :—

Collectorate.					Death-rate in 1939.	Death-rate in 1940.
Karachi	..	..	..	..	2.90	2.90
Hyderabad	..	..	..	..	5.04	5.27
Nawabshah	..	..	..	..	6.59	8.60
Thar Parkar	..	..	..	..	8.27	10.92
Larkana	..	..	..	..	8.31	11.21
Dadu	..	..	..	..	6.80	7.26
Sukkur	..	..	..	..	6.88	8.49
Upper Sind Frontier	..	..	..	..	5.72	7.27

5. *Death rates from fevers in urban and rural areas.*—The urban and rural rates for fevers were 5.37 and 8.02 as compared with 3.66 and 6.73 respectively in the year 1939. The highest death-rate was recorded in Ratodero town, Larkana district (30.47). This was followed by Nawabshah town in the Nawabshah district (28.48). High death-rates were recorded in Ghotki town in Sukkur district (26.52), Garhi Yasin town, Sukkur district (17.24) and Shikarpur town in Sukkur district (15.74).

Among rural areas Chachro in Thar Parkar district recorded the highest death-rate (16.39) as was also the case in the previous year (13.43). High death-rates were recorded in the following rural areas :—

Shahdadkot (Larkana district)	... 15.43
Jamesabad (Thar Parkar district)	... 15.25
Mithi (Thar Parkar district)	... 14.09
Digri (Thar Parkar district)	... 13.31

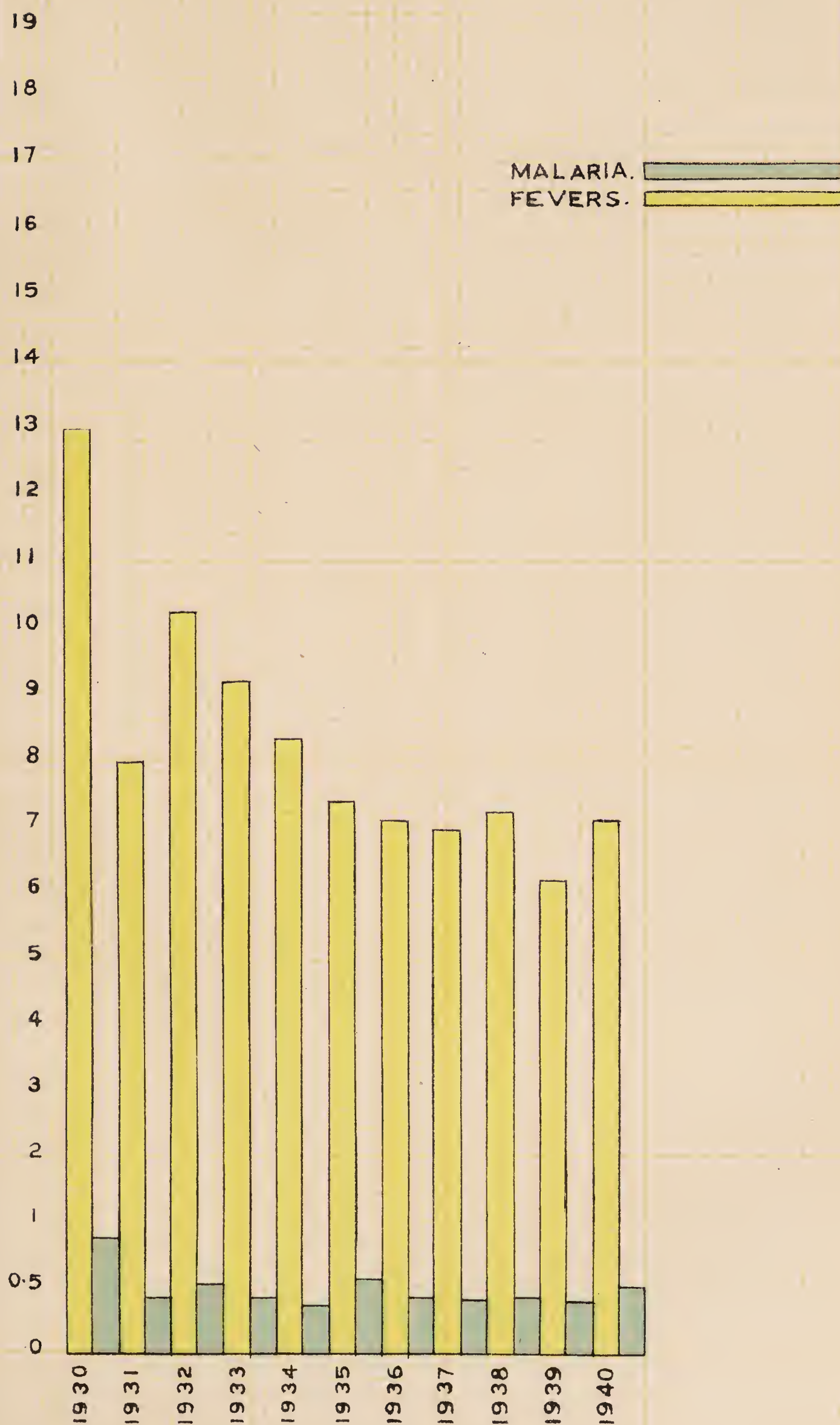
The lowest rates were recorded in Ketī Bunder (2.44) and Tatta (2.58) in Karachi district.

6. *Enteric Fever.*—The number of deaths due to enteric fever rose from 312 in 1939 to 486 in 1940. The respective death-rates for the year 1939 and 1940 were 0.08 and 0.12 and the average death-rate for the past five years was 0.09.

7. *Deaths from enteric fever in urban and rural areas.*—288 deaths were recorded in urban areas while the number of deaths due to enteric fever in rural areas was 198. The relevant figures for the past year were 167 and 145, respectively.

The highest number of deaths was registered in the City of

CHART V
SHOWING MORTALITY RATE FROM FEVERS
AND MALARIA BY YEARS FROM 1930-1940.



Karachi (61). High mortality was recorded in the following towns :—

Hyderabad 58, Tando Adam 36, Shikarpur 27, Sukkur 24 and Larkana 20.

Nawabshah district recorded the highest number of deaths (62) in rural areas. The next in order was Thar Parkar district (35). Sukkur and Dadu also recorded high mortality, *viz.*, 32 and 26, respectively.

Karachi City.—There was an increase of 27 deaths compared with mortality recorded due to enteric fever in 1939 (34). As usual anti-fly measures were adopted and T. A. B. inoculations offered free of charge.

Hyderabad town.—Enteric fever broke out in an epidemic form in the latter part of the year 1939. This has been ascribed to the fact that Perchloron Powder which was used for the sterilization of water was not available on account of War. Necessary preventive measures, including anti-typhoid inoculations, were taken by the Municipality. The number of deaths due to enteric fever as reported was 58 as against 9 in the previous year.

The mortality due to enteric fever in other large towns was :—

Towns.					1939.	1940.
Sukkur	..	..	..	..	26	24
Shikarpur	..	..	..	..	29	27
Larkana	..	..	..	..	25	20
Tando Adam	..	..	..	..	15	36

8. *Measles.*—The number of deaths during the year under report was 354 as against 288 in the previous year, giving the death-rates of 0.09 and 0.07 respectively.

9. *Deaths from measles in urban and rural areas.*—The urban death-rate was 0.41 while rural death-rate was 0.02. The urban and rural death-rates for the year 1939 were 0.27 and 0.03, respectively. The highest death-rates for urban areas were in Hyderabad (Hyderabad district) 1.03, Shikarpur 0.84, and Ghotki 0.83 (Sukkur district).

High mortality due to measles in rural areas was recorded in Thar Parkar (24), Nawabshah (21) and Dadu districts (15).

10. *Relapsing Fever.*—The Province was entirely free from this disease.

11. *Kala Azar.*—This disease is unknown in this Province.

12. *Typhus Fever.*—This disease is not common in Sind.

13. *Cerebro Spinal fever.*—17 cases of, and 10 deaths from

Cerebro spinal fever were reported as compared with 11 cases and 7 deaths in the year 1939. The case mortality was 58.82 as against 77.77 in the previous year. The details are as under :—

Name of Circle.	Attacks.	Deaths.	Date of 1st case.	Date of last case.
Hyderabad T. C. ..	4	2	2nd April 1940.	7th August 1940.
Mirpurkhas T. C. ..	1	1	26th September 1940.	26th September 1940.
Sinjhoro R. C. ..	1	1	9th March 1940.	12th March 1940.
Sukkur T. C. ..	11	6	22nd January 1940.	9th November 1940.
	17	10		

13. *Deaths from cerebro spinal fever in urban and rural areas.*—9 deaths out of the total of 10 occurred in urban areas. The number of deaths recorded in urban and rural areas in the previous year was 13 and 1, respectively.

14. *Respiratory Diseases. (General Prevalence).*—The number of deaths compiled under this head was 9,320 as against 8,444 in the previous year. The corresponding death-rates were 2.40 and 2.18, respectively.

15. *Deaths and death-rates from Respiratory diseases in previous years.*—This is as under :—

Year.					Number of deaths.	Death-rate.
1930	..	..	..	..	7,249	2.22
1931	..	..	..	..	6,292	1.63
1932	..	..	..	..	8,149	2.10
1933	..	..	..	..	8,036	2.07
1934	..	..	..	..	7,399	1.91
1935	..	..	..	..	8,654	2.23
1936	..	..	..	..	10,225	2.64
1937	..	..	..	..	9,098	2.55
1938	..	..	..	..	8,759	2.26
1939	..	..	..	..	8,444	2.18
1940	..	..	..	..	9,320	2.40

16. *Death-rates from respiratory diseases in Collectorates :—*

Collectorates.	1940.		1939.	
	Number of deaths.	Ratio per mille.	Number of deaths.	Ratio per mille.
Karachi	3,880	6.70	3,617	6.25
Hyderabad	2,194	3.32	1,772	2.68
Nawabshah	529	1.06	391	0.79
Thar Parkar	1,391	2.97	1,513	3.23
Larkana	240	0.54	205	0.45
Dadu	244	0.73	227	0.67
Sukkur	789	1.26	674	1.08
Upper Sind Frontier ..	53	0.20	45	0.17

17. *Death-rates from respiratory diseases in urban and rural areas.*—This year too the urban death-rate continued to be higher than that of rural death-rate, the relevant figures being 7.78 and 1.25. The total number of deaths recorded in urban and rural areas was 5,330 and 3,990 as compared with 4,327 and 4,117 respectively in the previous year. The urban and rural death-rates in the year 1939 were 6.31 and 1.29, respectively.

The highest death-rate among urban areas was recorded in Hyderabad (12.81) and was followed by Karachi (11.93). High rates were recorded in Nasarpur (6.84), Tando Adam (6.07) and Nawabshah (5.98).

Among rural circles, high death-rates were recorded in the following :—

Thar Parkar	...	... 2.94
Karachi	...	... 2.82
Hyderabad	...	... 1.60

18. *Seasonal Mortality of Respiratory diseases.*—The seasonal distribution of deaths from respiratory diseases is shown in Annual Form No. XII (Appendix III). It will be seen that the greater number of deaths due to respiratory diseases has occurred during the cold weather months. The highest number of deaths was recorded in the month of January and the lowest in the month of September.

19. *Phthisis and measures against it.*—The summary of the Annual Report of the Sind Provincial Tuberculosis Association has

been embodied in the Second Annual Report of the Tuberculosis Association of India for the year 1940. The substance of this is given below :—

A sub-committee was appointed to formulate a complete scheme for starting tuberculosis work. Therefore in consultation with the Director of Health Services a complete scheme for establishing tuberculosis clinics with necessary staff and X-ray appliances was worked out. This was approved by the Executive Committee. These clinics are to be run along with the Civil Hospitals in four Districts, *viz.*, (1) Sukkur, (2) Larkana, (3) Nawabshah and (4) Mirpurkhas. In order to make these clinics of lasting usefulness, the Association has undertaken to continue to maintain them with the help of the Provincial Government for a period of five years for which they have earmarked a sum of Rs. 25,000 nearly half of the total amount at their disposal. This scheme is now before the Government of Sind and as soon as it is sanctioned, the Association hopes to put it into execution.

As regards the City of Karachi, the City will soon have at a distance of only 8 miles an up-to-date sanatorium which is nearly completed. It will provide for one of the much felt needs of Karachi.

20. *Deaths from phthisis by Collectorates.—*

Collectorate.					1939.	1940.
Karachi.	..	..	..	..	657	936
Hyderabad	..	..	..	..	328	373
Nawabshah	..	..	..	..	68	100
Thar Parkar	..	..	..	..	130	128
Larkana	..	..	..	..	45	50
Dadu	..	..	..	..	72	77
Sukkur	..	..	..	..	154	179
Upper Sind Frontier	..	..	..	..	5	11
Total ..					1,459	1,854

21. *Death-rates from phthisis in urban and rural areas.—*
The death-rates in urban and rural areas were 1.93 and 0.17 as against 1.43 and 0.15 respectively in the previous year.

22. *Pneumonia—(General Prevalance).*—The total number of deaths due to pneumonia was 5,798 giving a death-rate of 1.50 as compared with 5,510 or a death-rate of 1.42 respectively in the previous year.

23. *Death-rates from pneumonia in urban and rural areas.*—The urban death-rate was 4.28 as compared with 3.72 in the previous year. The rural death-rates for the year 1940 and 1939 were 0.90 and 0.93 respectively.

In urban areas high death-rates were recorded in Hyderabad (9.45), Karachi (5.98), Umarmkot (5.46) and Nawabshah (4.27).

In rural areas high death-rates were recorded in Thar Parkar (2.40) and Karachi (2.15).

Out of the total deaths of 2,929 registered in urban areas due to pneumonia, as many as 2,390 were recorded in the towns of Karachi (1,483) and Hyderabad (907).

24. *Dysentery and diarrhœa—(General Prevalence).*—1,131 deaths or a death-rate of 0.29 were registered during the year under report as against 1,150 or 0.30 in the previous year and 1,172 or 0.30 in the quinquennium ending 1939.

25. *Death-rates from Dysentery and Diarrhœa in the previous year by Collectorates:—*

Collectorate.					1940.	1930 to 1939 (Mean).
Karachi	..	..	..	..	1.11	1.15
Hyderabad	..	..	..	..	0.18	0.22
Nawabshah	..	..	..	..	0.04	0.05
Thar Parkar	..	..	..	..	0.16	0.11
Larkana	..	..	..	..	0.04	0.06
Dadu	..	..	..	..	0.09	0.07
Sukkur	..	..	..	..	0.35	0.37
Upper Sind Frontier	..	..	..	..	0.01	0.03

Dysentery.—The number of deaths due to this cause was 305 as against 308 in the previous year, corresponding to the death-rates of 0.07 and 0.08, respectively.

Diarrhœa.—Diarrhœa accounted for 826 deaths or a death-rate of 0.21 as compared with 842 or 0.22 in the preceding year.

26. *Death-rates from Dysentery and Diarrhœa in urban and rural areas.*—The urban and rural death-rates for the year under report were 1.35 and 0.06 respectively. The corresponding rates for the year 1939 were 1.42 and 0.06.

High death-rates were recorded in the following towns:—

Karachi 2.41, Sukkur 2.08 and Ghotki 2.07.

In rural areas high death-rates were recorded in Thar Parkar district (0.17) and Karachi district (0.12).

27. *Injuries*.—The number of deaths due to injuries was 768 as compared with 966 in the year 1939. The male and female deaths were 577 and 191, respectively. The number of deaths among males and females in the previous year was 741 and 225 respectively.

The number of deaths during the previous ten years is as shown below:—

Year.	Number of deaths.			
1930	926
1931	838
1932	938
1933	1,004
1934	916
1935	884
1936	873
1937	791
1938	850
1939	966
1940	768

28. *Details of deaths from Injuries*:—

Causes.	1940.			1939.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	55	31	86	79	39	118
Poisoning	6	3	9	16	3	19
Hanging	11	4	15	10	1	11
Wounding	300	77	377	391	101	492
Wild Beasts	1	..	1	1	..	1
Snake bites	149	41	190	178	29	207
Rabies	13	2	15	11	9	20
Railway accidents ..	13	2	15	6	1	7
Other causes	29	31	60	49	42	91
Total	577	191	768	741	225	966

29. *Deaths from snake bites.*—Deaths from snake bites in Collectorates were :—

Collectorate.				1939.	1940.
Karachi	..	..	..	27	25
Hyderabad	..	..	..	30	17
Nawabshah	..	.	..	15	33
Thar Parkar	..	..	..	43	25
Larkana	..	..	..	40	37
Dadu	..	..	..	23	18
Sukkur	..	..	..	25	30
Upper Sind Frontier		..	..	4	5
Total				207	190

Anti-venom serum is stocked in all the Government hospitals and grant-in-aid dispensaries. The number of snake bite cases treated at the Government Hospitals including R. B. Udhavdas Tarachand Hospital, Shikarpur, was 159.

30. *Deaths from rabies.*—During the year under report 15 deaths due to rabies were reported to have occurred as against 20 in the previous year.

Anti-rabic treatment centres have been opened up at all the district head-quarter hospitals and the Rao Bahadur Udhavdas Tarachand Hospital at Shikarpur.

The number of persons who received anti-rabic treatment at the centres was 872 as compared with 885 in the previous year. The results are reported to be satisfactory.

31. *Details of suicidal deaths :—*

Causes.		1940.			1939.		
		Male.	Female.	Total.	Male.	Female.	Total.
Drowning	..	1	..	1	..	..	..
Poisoning	..	3	1	4	5	..	5
Hanging	..	8	4	12	10	1	11
Wounding	..	1	1	2	8	2	10
Railway	..	..	..	..	..	..	..
Total	..	13	6	19	23	3	26

32. *Deaths from other causes.*—Next to the omnibus heading ' Fevers ', the greatest number of deaths was recorded under " All Other Causes ". Out of the total number of 53,360 deaths, 11,646 were recorded under this heading, showing a percentage of 21.82. During the year 1939, the number of deaths registered under " All Other Causes " was 9,678 or a percentage of 21.61. The quinquennial mean was 8,130. The death-rates for the years 1940, 1939 and the quinquennial mean were 3.01, 2.49 and 2.10 respectively.

Deaths from other causes in the past decade were :—

Year.				Number of deaths.
1930	..	..	..	6,765
1931	..	..	..	7,123
1932	..	..	..	7,658
1933	..	..	..	7,473
1934	..	..	..	6,886
1935	..	..	..	7,471
1936	..	..	..	8,025
1937	..	..	..	7,568
1938	..	..	..	7,906
1939	..	..	..	9,678
1940	..	..	..	11,646

33. *Deaths from child birth.*—There was a decrease in the recorded number of deaths due to child bearing which was 889 as compared with 950 in the previous year. The maternal mortality rate was 10.69 as against 11.59 in 1939.

34. *Deaths from child birth in the previous years :—*

Year.				Number of deaths.
1935	..	..	..	979
1936	..	..	..	1,023
1937	..	..	..	881
1938	..	..	..	974
1939	..	..	..	950
1940	..	..	..	889

35. *Deaths from child birth by Collectorates :—*

Collectorates.				1940.	1939.
Karachi	..	..	..	110	145
Hyderabad	..	..	..	167	151
Nawabshah	..	..	..	88	118
Thar Parkar	..	..	..	85	109
Larkana	..	..	..	118	132
Dadu ..	..	..	..	91	76
Sukkur ..	..	..	..	214	191
Upper Sind Frontier	..	..	..	16	28
Total ..				889	950

36. *Deaths from child birth in urban and rural areas.*—351 deaths were registered in urban areas and 538 in rural areas as compared with 339 and 611 deaths recorded in urban and rural areas respectively in the previous year. The maternal mortality rate per 1,000 births for urban and rural areas was 11.74 and 10.10 respectively. One woman died of child bearing to every 92 lives births.

The incidence of maternal mortality in the important towns is shown in the following table :—

Town.	Total No. of births in 1940.	Total No. of deaths from child births in 1940.	Total No. of births in 1939.	Total No. of deaths from child birth in 1939.
Karachi	15,246	66	14,578	93
Hyderabad	3,806	67	4,035	52
Sukkur	2,678	29	2,590	14
Shikarpur	2,052	59	2,179	58
Larkana	934	59	926	30

37. *Diphtheria.*—The recorded number of deaths from this cause was 33 as compared with 19 in the previous year. The corresponding death-rates for the year 1940 and 1939 were 0.008 and 0.004. The number of deaths registered in urban and rural areas was 23 and 10 respectively. In rural areas the deaths due to diphtheria were distributed as under :—

Hyderabad 2, Nawabshah 3, Larkana 1, Dadu 2 and Sukkur 2.

In the City of Karachi 12 deaths were reported to have occurred as compared with the same number in the previous year. 166 cases were reported out of which 162 were admitted in the Epidemic Diseases Hospital where they were treated with Diphtheria Anti-toxin. Other measures to check the spread of the disease were taken as usual.

38. The number of deaths from chief causes for each collectorate by months is shown in Annual Form No. VII to XII (Appendix III).

CHAPTER IV.

EPIDEMIOLOGY.

1. *Cholera—(General Prevalence).*—During the year under review 354 cases of and 227 deaths from cholera were reported as against 6 cases and 3 deaths in the previous year. The district most affected was Dadu where out of 152 cases, 104 proved fatal. The death rate for the province was 0.06 as compared with 0.0008 in the previous year.

2. *Deaths from cholera in previous years.*—The following table and Chart No. VII show the total number of deaths from cholera from 1919 to 1940 :—

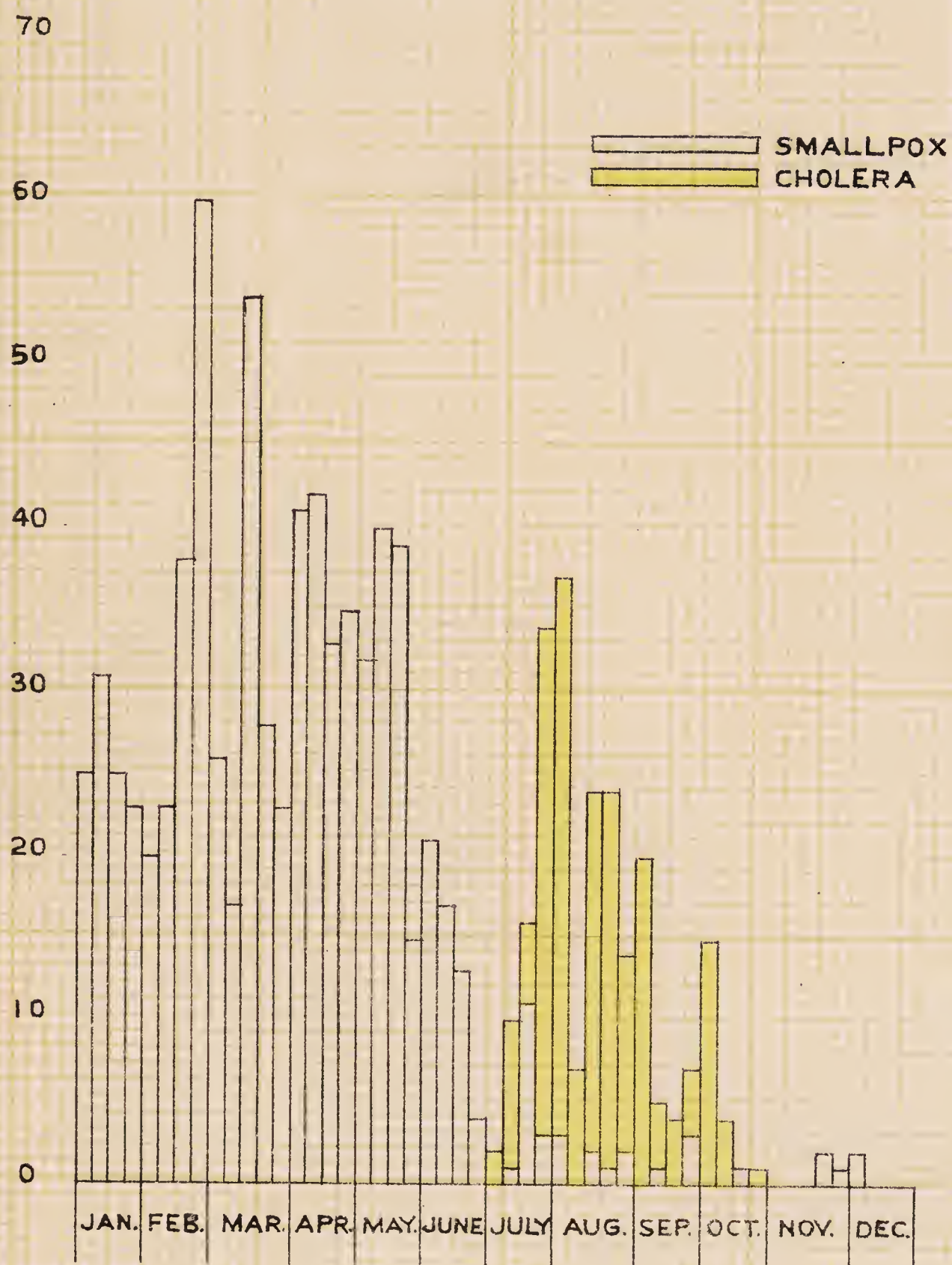
Year.				Number of deaths.
1919	..	..	..	316
1920	..	..	..	..
1921	..	..	..	429
1922	..	..	..	25
1923	..	..	..	9
1924	..	..	..	409
1925	..	..	..	1
1926	..	..	..	133
1927	..	..	..	1
1928	..	..	..	214
1929	..	..	..	6,411
1930	..	..	..	..
1931	..	..	..	68
1932	..	..	..	15
1933	..	..	..	3
1934	..	..	..	1
1935	..	..	..	44
1936	..	..	..	8
1937	..	..	..	2
1938	..	..	..	343
1939	..	..	..	3
1940	..	..	..	227

3. *Deaths from cholera by collectorates :—*

Collectorate.					1940.	1939
Karachi	..	..	..	..	29	..
Hyderabad	..	..	..	..	2	3
Nawabshah	..	..	..	..	74	..
Thar Parkar	..	..	..	..	1	..
Lakana	..	..	..	..	17	..
Dadu	..	..	..	..	104	..
Sukkur	..	..	..	..	..	..
Upper Sind Frontier	..	..	..	..	..	..
Total					227	3

CHART VI

WEEKLY INCIDENCE OF DEATHS FROM EPIDEMIC
DISEASES DURING THE YEAR 1940.



4. *Deaths from cholera in urban and rural areas.*—61 deaths were reported to have occurred in urban areas while the remaining 166 in rural areas.

5. *Brief History of Cholera.*—The disease first made its appearance in Dadu town in July 1940 and a number of cases occurred in one particular locality. The District Medical Officer, Dadu, during the course of his report stated that the first case of cholera gave no history to help in tracing the source of infection as neither the patient nor any member of the family had visited any cholera infected area outside Sind nor had any person from such an area come to visit or stay in the house in which the case occurred. As this source of infection was excluded the possibility of the water supply in that locality being contaminated was investigated. It was found that the 'bhayas' of the United Provinces worked as water carriers from a well in that locality, which had a parapet wall broken and the paved area around it old and dilapidated, allowing water to trickle down into the well. It was probable that one of these bhayas might have come a short time before from the United Provinces. These bhayas were often washing their clothes and bathing near this well and hence may have contaminated the water. On this assumption, the well was closed down, and the disease did not spread in that part of the town. The conditions contributing favourably towards the outbreak appeared to be the abnormally hot season, and the migration of the people into Dadu town due to dacoities in the villages, causing overcrowding and thus affecting adversely the sanitation of Dadu town.

Panic stricken people left Dadu for other districts and were the main cause of the importation of the disease in Nawabshah and Larkana districts and the City of Karachi.

6. Among the measures to combat the disease were:—

- (1) The enforcement of special regulations.
- (2) A ban was imposed on the export of fish and fruit from the railway stations coming within the areas declared to be infected. The railway authorities co-operated in this.
- (3) Special Cholera Controlling Officers were appointed.
- (4) Segregation camps were opened.
- (5) Inoculations on a large scale were carried out. A large number of incoming passengers to the City of Karachi was inoculated at the Cantonment or the City Railway Stations.
- (6) Fairs were banned.

- (7) Adequate arrangements were made to store cholera vaccine in the Office of the Director of Health Services and Inspector-General of Prisons, for supply to the local bodies.
- (8) Press Notes were issued keeping the public informed of the incidence of the disease and advising them to take necessary measures.
- (9) When the Lal Shahbaz fair was held in September, 1940, special precautions were taken. These have been described in Chapter VI.

7. *Expenditure on Cholera* :—

	Rs.
Cost of cholera vaccine ...	1575
Potassium Permanganate Crystals ...	125
Total ...	<u>1,700</u>

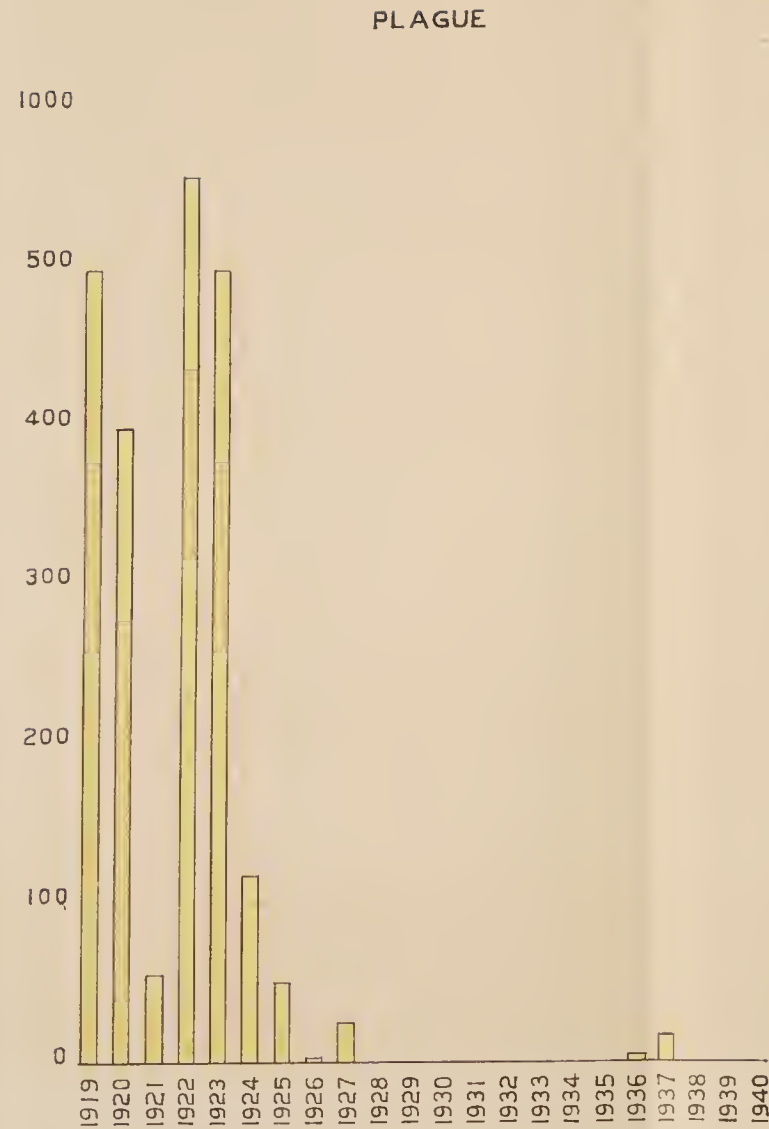
8. *Smallpox—(General Prevalence)*—Smallpox prevailed in all the districts the most affected being Hyderabad where out of 1,253 cases, 432 proved fatal. The other district seriously affected was Thar Parkar where 1,091 cases with 212 deaths occurred. The total number of cases reported for the Province as a whole was 3,786 as against 2,421 in the previous year.

The seasonal mortality due to smallpox as compared with the previous year is shown below :—

Month.	1940.	1939.
January	155	77
February	224	66
March	155	63
April	189	98
May	170	73
June	54	43
July	18	31
August	14	15
September	9	13
October	5	10
November	7	13
December	8	63
	<u>1,008</u>	<u>565</u>

During the year under report 1,008 deaths were recorded as against 565 in the previous year. The death rate was 0.26 as compared with 0.15 in 1939 and 0.16 in the past five years ending 1939.

CHART VII
ANNUAL INCIDENCE OF DEATHS FROM EPIDEMIC DISEASES



9. *Deaths from smallpox in previous years.*—The following table shows the number of deaths and death-rates recorded in years 1930 to 1940. Chart No. VII shows this information in graphic form for the years 1929 to 1940 :—

Year.					Number of deaths.	Death rate.
1930	..	..	..	..	509	0.16
1931	..	..	..	..	795	0.21
1932	..	..	..	..	1,553	0.40
1933	..	..	..	..	1,093	0.28
1934	..	..	..	..	209	0.05
1935	..	..	..	..	571	0.15
1936	..	..	..	..	308	0.07
1937	..	..	..	..	798	0.21
1938	..	..	..	..	941	0.24
1939	..	..	..	..	565	0.15
1940	..	..	..	..	1,008	0.26

Out of 1,008 deaths, 141 were amongst infants under 1 year of age and 441 above 1 and under 10 years and the remaining above 10 years.

10. *Deaths from Smallpox by Collectorates :—*

Collectorate.		1940.			1939.		
		Cases.	Deaths.	Death rate.	Cases.	Deaths.	Death rate.
Karachi	..	506	102	0.18	235	50	0.09
Hyderabad	..	1,253	432	0.65	507	128	0.19
Nawabshah	..	633	161	0.32	281	90	0.18
Thar Parkar	..	1,091	212	0.45	732	165	0.35
Larkana	..	107	26	0.06	303	56	0.12
Dadu	..	100	46	0.14	280	67	0.20
Sukkur	..	87	26	0.04	65	7	0.01
Upper Sind Frontier	..	9	3	0.01	18	2	0.007
Total	..	3,786	1,008	0.26	2,421	565	0.15

11. *Deaths from Smallpox in urban and rural areas :—*Out of 1,008 deaths, 435 were recorded in urban areas and 573 in rural areas as against 131 and 434 in urban and rural areas respectively in 1939.

In urban areas, high death rates were recorded in Tando Adam (3.57), Hyderabad (3.17), Kotri (2.08) and Nawabshah (1.85).

High death rates in rural areas were recorded in the districts of Thar Parkar (0.43), Karachi (0.25), Hyderabad (0.23) and Nawabshah (0.21).

12. *Steps taken by the Public Health Department.*—The Province of Sind is almost always visited by smallpox, and its incidence is more in rural areas. Every effort was made to combat the disease. An intensive vaccination and re-vaccination campaign was started.

Extra lymph was supplied to the vaccinators. Additional temporary vaccinators were appointed in the affected districts. The District Local Boards have been informed continually that as the existing staff is inadequate, it should be supplemented by the appointment of extra vaccinators. As a result of this, the District Local Board, Nawabshah, agreed to the appointment of 3 permanent vaccinators together with their peons. In addition temporary vaccinators as shown below were entertained at the cost of the District Local Boards concerned.

District.	No.	Period.	From	To
Karachi ..	1	6 months.	5th Feb. 1940.	4th August 1940.
Hyderabad ..	1	2 months and 17 days.	1st Jan. 1940.	17th March 1940.
Do. ..	1	10 months and 21 days.	9th Feb. 1940.	31st Dec. 1940.
Do. ..	1	7 months and 24 days.	8th May 1940.	Do.
Do. ..	1	4 months and 24 days.	8th August 1940.	Do.
Total ..	4			
Nawabshah ..	1	3 months.	12th March 1940.	11th June 1940.
Thar Parkar ..	1	3 months.	25th Jan. 1940.	24th April 1940.
Do. ..	1	7 months and 20 days.	26th Feb. 1940.	15th Oct. 1940.
Do. ..	1	5 months and 7 days.	9th May 1940.	Do.
Do. ..	1	5 months and 5 days.	11th May 1940.	Do.
Total ..	4			

Vaccination has been made compulsory in all Municipal towns. Efforts are being made to make vaccination compulsory in rural areas and as a first step the Notified Area/Sanitary Committees at taluka headquarter towns have been advised to agree to the extension of the provisions of the Bombay District Vaccination Act, 1892, within their limits. It is pleasing to note that the response is not discouraging. The provisions of the Act have actually been extended to 7 Sanitary Committees out of 37, viz., Mirpur Bathoro, Sujawal (Karachi District), Naushahro Feroz, Moro (Nawabshah District), Mehar (Dadu District), Nangar Parkar, Digri (Thar Parkar District).

Preserved lymph from Belgaum was indented for and stocked in a refrigerator in the head office. 37,315 doses were supplied to the vaccinators in addition to their usual supplies.

13. *Vaccinal Conditions*.—At present facilities for the segregation of cases of small-pox exist only in the city of Karachi, where the Corporation maintain an Epidemic Diseases Hospital. The question of the construction of such a hospital has been pending before the Hyderabad Municipality for ages and it is regretted that upto now nothing practical has been done. It is also desirable that arrangements for the segregation of infectious diseases cases, which includes small-pox should be made at all district head quarter towns. It may not be possible from financial point of view for the Municipalities concerned to construct and maintain separate Epidemic Diseases Hospitals. It is therefore suggested that a separate epidemic diseases ward should be constructed in the premises of the Civil Hospitals (except at Karachi and Hyderabad).

The vaccinal conditions of the patients admitted at the Epidemic Diseases Hospital, Karachi, were as shown below :—

Ages.	A. Vaccinated as evidenced by the presence of one or more vaccination cicatrices.		B. Stated to have been successfully vaccinated but no vaccination cicatrix present.	C. Stated to be unvaccinated (or vaccinated unsuccessfully and no vaccination cicatrix present.	D. Previously unvaccinated but vaccinated during inoculation of small pox.	E. Stated to have been successfully re-vaccinated.	
	(i) Within the last 5 years.	(ii) More than 5 years previously.				(i) Within the last 5 years.	(ii) More than 5 years previously.
Under 1 year.	3	..	..	..
1	1	..	..	..
2	2	..	..	..
3	1	2	..	..	..
4	4	..	..	..
5	1	..	1	..	..	..	..
6	1	..	2	1	..	..	..
7	1	..	..	..
8	2	..	..	..
9	..	1	..	1	..	..	..
10
11
12	..	1	..	1	..	..	..
13	1	..	..	..
14	1	..	..	..	..	..	..
15	..	1	..	..	1	..	..
20	..	3	4	2	..	..	..
25	..	6	3	1	..	..	..
30	..	3	1	1	..	..	..
35	..	2	3	1	..	..	..
40	..	1	..	1	..	..	..
50	..	1	..	1	..	..	..
60	..	1	..	..	..	..	..
70
80
and upwards							
Total ..	3	20	15	26	1	..	..

14. *Plague (General Prevalence).*—The Province was completely free from plague during the year under report as was the case in the previous year.

15. *Deaths from plague in previous years.*—The incidence of mortality due to plague from the year 1919 is shown in Chart No. VII.

16. *Ratting Operations.*—Ratting operations were continued as usual in the following Municipal towns :—

1. Karachi,
2. Hyderabad,
3. Mirpurkhas,
4. Tando Adam,
5. Sukkur,
6. Shikarpur.

The total number of rats caught in these towns were 186,508. The number of rats examined in the City of Karachi was 12,213 but none was found to be infected.

17. *Influenza.*—Two deaths from Influenza were reported as against one in the previous year.

18. *Deaths from Influenza in previous years :—*

Year.	No of deaths.	Year.	No. of deaths.
1919	1,008	1930	6
1920	552	1931	6
1921	327	1932	3
1922	128	1933	5
1923	37	1934	14
1924	39	1935	18
1925	30	1936	4
1926	20	1937 .. ..	..
1927	26	1938	16
1928	45	1939	1
1929	12	1940	2

19. *Cerebro-spinal Fever.*—17 cases of and 10 deaths were reported as compared with 9 cases and 7 deaths in the previous year.

CHAPTER V.

1. *Fairs and Festivals*.—The following important fairs took place during the year under report :—

- | | | |
|---------------------|-----|---------------------|
| 1. Lal Shahbaz Fair | ... | Dadu district. |
| 2. Bhit Shah Fair | ... | Hyderabad district. |
| 3. Sajan Sawai Fair | ... | „ |

Pithoro which is one of the important fairs was banned as cholera was prevalent in the province at that time.

The Lal Shahbaz fair was however allowed to take place. The following measures were taken.

1. Mr. E. H. Holt., I.C.S., the Collector of Dadu, Dr. O. M. Akbani, D.P.H., (London), the Assistant Director of Public Health and Dr. A. M. Abbasi, M.B.B.S., the District Medical Officer, Dadu, encamped at Sehwan. 3 qualified Sanitary Inspectors and 8 S.S.M.S. Officers were deputed on special duty.

2. Arrangements were made for the opening of the Aral Head Regulator so as to allow the rapid flow of plenty of fresh water into the Canal.

3. The Aral canal was divided into three sections. One was reserved for fetching water for domestic purposes, the other lower down the stream for bathing and washing purposes and the third still lower down for animals.

4. A strong posse of chowkidars protected by a guard of two policemen were posted there to see that the arrangements were not disturbed.

They worked in three shifts from 6 a.m. to 11 p.m.

5. The chowkidars and the policemen were given potassium permanganate and were instructed to put a few crystals in the Pakhals or other receptacles brought for fetching the water.

6. All the wells in the town were treated with potassium permanganate every day.

There was a thorough and complete control over the water-supply. Thus this source of infection was eliminated.

7. Also strict watch was kept over food stuffs. All unripe or overripe fruit and other foodstuffs that were stale were seized and buried.

Every night after 12 o'clock when the eating houses were about to be closed, all articles of food like meat and fish, liable to be decomposed, were seized, so that the hotel-keepers should all use the fresh stuff the next morning.

One S. S. M. S. was given this charge along with the duty of looking after the cleanliness of the market. He was given a policeman and two sweepers to help.

8. All incoming passengers either by Railway or ferries or Buses were inspected by the Medical Officers. They were also given the assistance of Policemen.

9. The pilgrims attending the fairs live in "kafis" and private lodging houses. These are always overcrowded and kept in a very filthy and insanitary condition.

Two S. S. M. S. Officers visited all "kafis" and rest houses with a view to detecting any sickness. Policemen also accompanied them.

10. The Sehwan dispensary was converted into a segregation camp with 12 beds to meet the situation in case cholera broke out, and was put in-charge of the Medical Officer.

11. For the purpose of surface cleanliness, cleanliness of the nalis and the removal and disposal of night soil, the three Sanitary Inspectors were deputed, supplied with sufficient quantity of lime and phenyle for sprinkling.

A contingent of 40 sweepers was placed at the disposal of the Inspectors.

The whole of the staff worked efficiently and the danger of the outbreak of cholera was thus averted.

No untoward incidence occurred except that a woman was reported to be suffering from vomiting and diarrhoea. She was immediately removed to the segregation camp and put under treatment and kept under observation. She showed immediate signs of improvement. On enquiries from her, it was revealed that she had taken the previous day's cooked food. She was however discharged in the evening. The "Haveli" in which she was living was thoroughly disinfected.

With a view to meeting the situation at the time of the fair in future recommendation have been made which includes the formation of a Sanitary Board.

A detailed report was made to the Government. The Director of Health Services and Inspector-General of Prisons, Sind, was directed to convey the thanks of the Government to all those who co-operated in adopting the necessary preventive measures. Thus thanks were conveyed to the following:—

1. Mr. E. H. Holt., I.C.S., Collector of Dadu.
2. Dr. O. M. Akbani, M.B., B.S., D.P.H. (London), Assistant Director of Public Health, Sind.
3. Dr. A. M. Abbasi, M.B., B.S., District Medical Officer, Dadu.
4. Mr. G. M. Kazi, B.A., Mukhtiarkar of Sehwan.
5. Mr. Asandas Chainrai Lalchandani, B.A., LLB., President of Dadu Municipality.

The S. S. M. S. Officers and the Sanitary Inspectors were also thanked.

It was primarily the duty of the Sehwan Municipality to have made necessary arrangements at the time of the fair. It is regrettable to note that co-operation from the Municipality was rather lacking. The Municipal authorities never seemed to realise fully the delicacy of the situation and the emergency that all had to face.

The question of the stopping of prostitution at fairs was further examined. The Revenue Commissioner for Sind has been recommended to move the local bodies to amend bye-laws on the subject prohibiting prostitution within a radius of 3 miles from a fair area. When this is done, its effects will be carefully watched.

CHAPTER VI.

URBAN SANITATION (INCLUDING NOTIFIED AREAS).

1. *Number of Medical Officers of Health.*—Municipal Medical Officers of Health having British Diplomas in Public Health have been employed at Karachi, Hyderabad and Sukkur. The Medical Officer of Health employed at Shikarpur possesses an Indian Diploma. The two Municipalities of Sukkur and Shikarpur have employed Medical Officers possessing qualifications necessary for a first class Municipality but allow the scale of pay prescribed by Government for an Officer of a second class town. One Assistant Health Officer and one Deputy Health Officer having British Diploma in Public Health have also been employed in the City of Karachi for the Municipal Corporation.

2. *Number of Sanitary Inspectors.*—26 qualified Sanitary Inspectors were employed in the principal towns of the Province, viz., Karachi (8), Hyderabad (4), Sukkur (4), Shikarpur (3), Larkana (2), Rohri (1), Tando Adam (2), Jacobabad (1) and Murpurkhas (1).

3. The Government were recommended to revise the policy of the payments of grant-in-aid as laid down in Government Resolution, General Department, No. 8747, dated the 26th March 1936. As a result of this the Government of Sind in their Resolution, General Department, No. 514-G.A./40, dated the 25th November, 1940, included in Class III towns the Municipalities of Mirpurkhas, Kamabar and Nawabshah although the population of these towns was below 15,000. After the 1941 census populations are officially made known, the municipalities with a population of 10,000 and over and below 15,000 will be encouraged to appoint qualified Sanitary Inspectors and the Government will be recommended to sanction grant-in-aid for them.

3-A. *Municipal Sanitary Works.*—There are in all 26 municipal towns including the City of Karachi with a total population of 672,432.

The incidence of Municipal income and taxation per head of population in the larger municipalities was :—

Name of the town.				Income.	Taxation.
				Rs.	Rs.
Karachi ..	..	..	..	18 5 7	11 12 7
Hyderabad ..	..	..	..	12 9 4	6 15 8
Sukkur ..	..	..	..	11 14 2	3 15 1
Shikarpur ..	..	..	..	7 5 6	4 12 0
Larkana ..	..	..	..	7 9 7	5 11 11

During the year under report, sanitary inspection of 14 towns and 5 Notified Area and Sanitary Committee was made by the Director of Health Services and Inspector-General of Prisons, Sind, and the Assistant Director of Public Health, Sind. As usual a report embodying the defects noted and the remedies therefor was sent to the local authority concerned.

The Public Health Department had the sad experience to note that these reports receive scant attention and often no action is taken at all. At times it had been seen that full advantage is not taken of the presence of the Officers of the Public Health Department in their towns, by the authorities of the local bodies concerned even though intimation to that effect is sent to them officially. If the matters are allowed to stand as they are, it is considered that it will be sheer waste of time of the Government inspecting officers to visit the towns and take the labour of preparing reports.

As already stated in the Annual Public Health Report for the year 1939, the resolution passed by the Larkana Municipality with regard to the appointment of a Medical Officer of Health remained on paper. After the municipality was superseded on account of maladministration, the Administrator raised a cry of 'no funds'. Thus this proposal has been almost shelved for the present. The Government have however directed that the Administrator should review the financial position of the Municipality in the year 1942-43 and see whether this appointment could be made.

4. The expenditure on public health measures per head of population came to Rs. 2-9-2 approximately in the City of Karachi and the average of Rs. 2-3-5 for the remaining municipalities having subsidised health staff.

5. *Municipal Water-Supplies*.—The state of water-supplies remained almost the same as in the previous year. There was nothing of interest of which mention could be made here.

6. *Infectious Diseases Hospital*.—The Karachi Municipal Corporation maintains an Epidemic Diseases Hospital.

So far as the Hyderabad Municipality is concerned no material advance has been made. This question has been referred to in paragraph 13, Chapter V of this report.

7. *Housing Conditions in Urban areas*.—There were no improvement trusts or other bodies concerned with the improvement of houses in any of the towns in the Province, nor were there any industrial housing schemes.

No land was granted by the Municipal Corporation of the City of Karachi to any society for housing purposes. The Chief Officer, Karachi Municipal Corporation in the course of a report states " the two schemes, *viz.*, for granting land to the poor working class of people in Lyari Quarter and the other for the Lower Middle Class people in Jamshed Quarter which have since been sanctioned by Government, are receiving attention. As regards the first scheme, applications have been invited from persons holding temporary plots for exchanging the same for permanent plots in sheet K-6-A. Lyari Quarter for constructing buildings on them costing a minimum of Rs. 500 and maximum of Rs. 1,500. As regards further grant of land to Lower Middle Class people in Jamshed Quarter, the same will be taken in hand as soon as the area is fully developed by the laying of water and drainage mains for which necessary action is being taken ".

With a view to relieve congestion in the town of Hyderabad, the Municipality has developed the Fort Area. Another area known as East Hirabad extension has also been developed.

The Municipality of Shikarpur has granted free fold right of large plot of land on a nominal rent to the local Harijan Shewak Sangh for the construction of cheap and sanitary tenements for Harijan employees of the Municipality.

There are Co-operative Housing Societies at Karachi and Hyderabad.

CHAPTER VII.

RURAL SANITATION.

1. *District Health Officers.*—District Health Officers were employed by the District Local Boards of Larkana and Karachi. The latter one joined military service and the post is still lying vacant. Although section 119 of the Bombay District Local Boards Act, 1923, had been so amended in 1939, as to make it compulsory for the District Local Boards to appoint Health Officers, but it is regrettable to note that the District Local Boards do not appear to be in a mood to make such appointments. It is high time, the Government may take action and prescribe a time limit for the District Local Boards for effecting these appointments .

It is very necessary that the District Health Officers should be provincialised. Experience has shown that if the District Health Officers are not provincialised, the Public Health Department will be inconvenienced in exercising control over them with the result that the conditions in rural areas will hardly be improved.

2. *Land acquisition in villages.*—No land was acquired for the purpose of relieving over-crowding in villages.

3. *Housing conditions in rural areas.*—The houses in rural areas are irregular and congested without proper ventilation or regular streets. The villages chiefly hari-class live in thatched landhis with side landhis for their cattle. Little regard is paid to sanitation and hygiene by this class. Model houses have been constructed, but this has made little impression on account of the economic condition of rural population. In case of new villages, the sites are sanctioned by the Revenue authorities only after a proper layout is approved.

4. *Village water-supply.*—Grants to the District Local Boards for the construction of wells are distributed with the consultation of the Officers of the Public Health Department. It has been seen that very often the major portion of the grant remains unspent. The District Local Boards should undertake an extensive programme of the construction of new wells.

With a view to seeing that the wells are constructed on sanitary lines, and arrangements for the proper disposal of the waste water are made, a questionnaire has been drawn up asking the District Local Board to furnish the information called for therein and to submit site plans for approval before the wells are sunk.

75 draw wells were newly constructed in the following districts :—

Karachi	...	...	3
Hyderabad	...	...	9
Nawabshah	...	...	8
Thar Parkar	...	...	9
Dadu	...	...	11
Sukkur	...	...	35
Total	...	...	<hr/>75 <hr/>

5. The expenditure of District Local Boards on public health measures varied from 7.67 per cent. of their income in Larkana district to 3.70 per cent. in Dadu district.

The average expenditure on public health per head of population varied from Re. 0-1-11 in Larkana district to Re. 0-0-5 in Sukkur district.

6. There was one Sanitary Board and 221 Sanitary and Notified Area Committees.

CHAPTER VIII.

RURAL RECONSTRUCTION.

There is a separate department for rural reconstruction which is in-charge of a Special Officer.

Funds for rural reconstruction are provided partly by the Government of India and partly by the Provincial Government. In the year 1940-41 Rs. 60,000 were sanctioned from the Government of India grant and Rs. 55,700 from the Provincial revenues.

The three main objects on which the Government of India grants are spent are firstly improvement of water-supply, secondly sanitation and hygiene and thirdly agriculture and cottage industries.

2. There were 12 units as against 8 of the last year selected for intensive rural reconstruction work in the Province. The total number of villages and hamlets comprising these units was 104 inhabited by a population of about 60,000 souls. Definite programme of work for each unit for a period of 12 months was chalked out by the Special Officer for Rural Reconstruction, Sind, and carried for execution by the District Sudhar Committee.

3. The main activities under the head specified in paragraph above during the year were as under :—

(a) *Improvement of water-supply.*—132 tube wells and 46 draw wells were sunk on contributory basis. The wells in the selected areas were treated with potassium permanganate.

(b) *Sanitation and Hygiene.*—Village streets continued to be levelled by the villagers themselves, heaps of rubbish removed outside the villages and destroyed. Dust bins and katchara pits were provided in a considerable number in the selected villages. Jungle clearance and filling up of pits and depressions are being attended to by the villagers. In several villages the villagers have provided their houses with more ventilators and windows. Village medicine chests have been provided in all the selected areas and their number increased in some cases. A new departure under this head had been the employment of trained dais in selected villages of the Karachi, Thar Parkar, Nawabshah and Upper Sind Frontier districts. In some cases certain lengths of village roads ranging from 2 to 8 miles were repaired by the villagers themselves.

(c) *Agricultural and Cottage Industries.*—The poultry breeding scheme introduced in the year 1939 was modified in

the year under report and the poultry pens at Mirpurkhas and Dadu continued. In addition to these, poultry pens were also opened by private individuals in Hyderabad, Sukkur, Nawabshah and Thar Parkar districts. Model orchards laid down in villages in several districts are in flourishing condition. Rabi and Kharif demonstration plots progressed satisfactorily. The number of stud bulls has increased. A special departure during the year under review had been the establishment of nurseries to promote the growth of fruit trees in the selected area.

Industrial scheme.—The activities had been under the heads of rope making, tanning and bee-keeping. There is nothing to report on the progress of rope making. Tanning and bee-keeping are progressing satisfactorily.

The funds provided by the Provincial Government were used for the payment of the necessary staff of the Special Officer and the Sudhar Committees, propaganda work including the village shows and exhibitions, the construction of model villages and other miscellaneous purposes not covered by the Government of India grant.

Three model villages consisting of 30 to 40 houses each were constructed on contributory basis in districts of Karachi, Dadu and Nawabshah. The houses constructed in the villages are airy and commodious. Every house has a cattle shed separate from the residential rooms which have a verandah and sufficient number of windows and ventilators. These villages have been provided with all the amenities and necessities of life, *e.g.*, parks, fruit trees, recreation grounds equipped with gymnastic sets, schools' table dispensaries, and good roads. Apart from this about 74 model houses were maintained by the Government in different villages for demonstration purposes.

Among miscellaneous activities mention may be made of the increase of Boy Scout troops, girl guides organisations and debating groups. Junior Red Cross Societies are flourishing. The Officers of the Veterinary, Medical and Agricultural Departments and vaccinators tours in the areas selected for intensive rural reconstruction work and treated persons and animals with minor ailments and diseases and performed vaccination and revaccinations.

CHAPTER IX.

MALARIA.

1. *Incidence.*—As noted in previous reports, the prevalence of malaria is one of the major health problems to be faced in this Province. The number of deaths increased from 1,553 in the year 1939 to 2,106 in the year under report. This alone will not give any indication of the magnitude of the prevalence of the disease. It is customary for the village registrars to group a great number of deaths under “ Fevers ” even though actually many of these may be due to malaria. The question of the appointment of a malariologist and his staff is receiving the attention of the Government.

2. *Deaths from malaria in Collectorates :—*

Collectorate.	Number of deaths.	
	1940.	1939.
Karachi	130	122
Hyderabad	184	298
Nawabshah	64	60
Thar Parkar	95	38
Larkana	322	180
Dadu	116	101
Sukkur	1,174	730
Upper Sind Frontier	21	17
Total ..	2,106	1,546

3. *Relation of deaths from malaria to deaths from fevers.*—Out of 29,260 deaths due to “ Fevers ” 2,106 showing a percentage of 7.19 as compared with 1,546 and a percentage of 6.45 in the previous year were due to malaria.

4. *Seasonal mortality of malaria :—*

Month.	Number of deaths.	
	1940.	1941.
January	133	171
February	158	112
March	142	114
April	169	93
May	235	117
June	179	112
July	123	130
August	146	89
September	168	114
October	212	137
November	200	168
December	241	189
Total ..	2,106	1,546

5. *Deaths from malaria in urban and rural areas.*—This year too the disparity between the recorded mortality in urban and rural areas was very marked. The number of deaths in these areas was

1,591 and 515 respectively, while the total number of deaths recorded under " Fevers " was 3,678 and 25,582 respectively. The percentage of deaths from malaria to deaths from " Fevers " in urban and rural areas was 43.23 and 6.22 respectively. This will certainly give a wrong impression that the incidence of malaria is more in urban areas than in rural areas whereas the facts are quite to the contrary. The registration being defective, a greater number of deaths due to malaria are probably recorded as under the omnibus heading " Fever ".

The number of malarial cases treated at the Civil Hospitals, Government grant-in-aid dispensaries, Municipal and Local Board dispensaries was 298,615 as against 236,539 in the previous year.

A scheme for the registration of births and deaths in rural areas has been submitted to Government. One of the features of this scheme is that in addition to the tapedars, school teachers and pound munshis will maintain birth and death registers for which they will be remunerated. It is now under consideration to sponsor a proposal for imparting instructions to the tapedars and the school-masters at the time they undergo departmental training at their respective institutions.

6. *Anti-malaria measures: Karachi City.*—The mosquito brigade maintained by the Karachi Municipal Corporation consists of 1 inspector, 11 sub-inspectors, 10 munshis and 64 coolies. The cost of the malarial Branch was Rs. 32,211 during the year 1939-40.

24 wells were closed during the year and 67 trap door covers over the wells were renewed and thus rendered mosquito-proof. Almost all the wells, storage tanks and all such likely breeding places were periodically examined with a view to detecting the breeding of mosquitoes.

The result of examination of larvae showed that only 0.2 per cent. were *Anopheles*, 23.7 per cent. *Stegomyia* and 76.1 per cent. were *Culex* and others.

Hyderabad town.—Special attention was paid to the pumping of rain water from the stagnated areas and treating the breeding places of mosquitoes, specially anophelene larvae, with malariol. The two anti-malaria gangs consisting of 2 jamadars and 4 sweepers continued to be maintained.

Sukkur town.—During the year under report 25,768 cases of malaria were treated in the Municipal dispensaries against 20,985 in the previous year. Malaria brigade consisting of 1 Sanitary sub-inspector and two sweepers was employed. Necessary preventive measures were taken by the Municipality.

Larkana town.—A sum of Rs. 2,000 was sanctioned by the Government for anti-larval treatment of the ponded water in the Old Ghar Canal. Mosquitoe breeding places within the municipal limits were also treated with suitable larvicides. The expenses were met from the grant sanctioned by the Government.

A gang of one jamadar and 3 coolies was appointed. Malariol and Paris Green were used as larvicides. The work is being supervised by the Municipal Sanitary Inspector under the guidance of the Civil Surgeon, Larkana. The Director as well as the Assistant Director of Public Health paid visits to see the operations. The operations in the Ghar canal were supplemented by measures taken to treat all stagnating pools within the Municipal area and half a mile radius beyond.

The result of these measures has been marked and contributed to the reduction in the number of mosquitoes in the centre of the town and in the immediate neighbourhood of the Ghar Canal. It has however been reported that this has not resulted in lowering the incidence of malaria. This is attributed to the cultivation of paddy around the town and it is suggested that this should be prohibited within at least half a mile radius outside the municipal limits. This is the view held by the Sanitary Board, Larkana.

7. *Government measures : (a) Appointment of Touring Medical Officers.*—8 Touring Medical Officers were appointed on anti-malaria duty to tour in rural areas specially in those part where medical aid in the ordinary course was not available. The Touring Medical Officers appointed on anti-malaria duty and the Medical Officers In-charge, Government Motor Travelling Dispensaries, visited 494 villages and treated 30,396 patients (14,689 for malaria and 15,707 for other complaints).

(b) *The sale of Jail made mosquito nets.*—There was a great demand for the improved pattern mosquito nets. Many had had to be disappointed as the out-turn of these nets from the District Prison, Karachi, was much reduced as prior consideration was paid to war supplies.

(c) The Government provided in all a sum of Rs. 44,000 for the free distribution and cheap sale of quinine tablets.

(d) On account of the increase in the price of quinine, the extent of free distribution of quinine tablets had to be somewhat curtailed. As usual the following agencies were employed for the purposes :—

1. Officers of the Public Health, Revenue Departments,
- (2) Administrative Officers, School Boards, (3) Philanthropic and Voluntary Societies, (4) Zamindars employing a large number of haris, and (5) the Special Officer, Rural Reconstruction.

(e) A fishery for the breeding of larvivorous fish (*Gambusia*) was maintained.

(f) Quinine tablets were supplied to Post Offices for cheap sale.

(g) Leaflets on malaria were printed and distributed.

(h) Printing and distribution of posters illustrating personal preventive measures against malaria and the value of quinine in the treatment of malaria.

(i) Two Motor Travelling Dispensaries also toured in the villages and the Medical Officers in-charge of these treated malaria cases.

(j) Pyrocide '20' was suggested to various authorities. The results obtained have been invariably satisfactory.

(k) *Manufacture and supply of quinine tablets.*—Quinine tablets are manufactured at the Hyderabad Central Prison under the supervision of a trained member of the staff.

8. During the year under report, 1,640,281 (5 gr.) and 4,414,425 (2 gr.) quinine sulphate tablets were supplied to various agencies as shown below :—

—————	5 grains.	2 grains.
1. Quinine sulphate tablets to Post Offices for cheap sale.	277,956	..
2. Quinine hydrochloride treatment parcels sold to Government Department.	998 parcels (each parcel containing 200 tablets of 5 grains each).	..
3. Quinine sulphate tablets sold to local bodies at consessional rates.	358,925	105,825
4. Quinine hydrochloride parcels sold to local bodies.	56 parcels.	..
5. Quinine sulphate tablets for free distribution (Government Officials).	629,700	879,500
6. Quinine sulphate tablets sent to various local bodies for free distribution.	200,000	3,425,000
7. Quinine sulphate powder and tablets sold to Government Departments.	173,700 39 lbs.	4,100

9. Special inquiries and investigations. Nil.

CHAPTER X.

MATERNITY AND CHILD WELFARE.

Most of the activities in connection with Maternity and Child Welfare are attributed to voluntary associations, chief of them being (1) The Indian Red Cross Society, (2) The Lady Graham Dais' Improvement and Village Uplift Scheme, Hyderabad, (3) The Lady Graham Dais' Training School, Sukkur and (4) The Karachi Health Association. A Maternity and Child Welfare Sub-Committee under the auspices of the Red Cross Society has been set up with the Director of Health Services and Inspector-General of Prisons, Sind, as Chairman.

2. *Training Centres.*—The Lady Graham Dais' Improvement and Village Uplift Scheme, Hyderabad and the Lady Graham Dais' Training School, Sukkur, are the centres for the training of dais while midwives are trained at the Lady Dufferin Hospital and the Louise Lawrence Institute of Midwifery, Karachi.

3. During the year under review, the Countess of Dufferin Fund, Sind Provincial Council (Women's Medical Relief) provided instruments and equipment in Women's Hospitals and Maternity Homes to the value of Rs. 1,333-1-0.

4. As a first step in an eight year scheme under which five candidates are to be selected for receiving training in midwifery at the Lady Dufferin Hospital, Karachi, five candidates were sent for the necessary training at the beginning of the year under review. One of the candidates did not proceed with the course. The Government have sanctioned the payment of a monthly scholarship to the extent of Rs. 20 for a period of 12 months. Appointments for successful candidates have also been guaranteed. Great difficulty has been experienced in obtaining suitable Sindhi girls who would take up the course.

The Government have also sanctioned the proposal for the establishment of subsidised "Maternity Centres" in rural areas. The essential points in the proposal in question are :—

- (1) The minimum staff of the Maternity Centres should be a trained dai and a peon (the dai should have passed the examination from the school recognised by the Government).
- (2) The share of expenses will be to the extent of 1/3rd of the actual expenses (recurring which will be determined after the receipt of the report of the accounts).

- (3) This offer is open to all voluntary associations in rural areas who either maintain a " Maternity Centre " or propose to maintain one at a place where there is neither a Government nor a Local Board Maternity Home or a Hospital.

In order to encourage District Local Boards to establish more Maternity Homes and Centres, it is proposed to recommend the Government to give them also grants-in-aid.

5. *Maternity Services in urban and rural areas.*—The extent of maternity and child welfare services in urban and rural areas is shown in Appendix I-A.

There are signs to show that the District Local Boards are now diverting their attention to this most important problem. Given an encouragement by payment of the Government grants-in-aid, it is expected that these services will rapidly improve.

Trained dais have been employed in rural reconstruction centres in Karachi, Nawabshah and Thar Parkar districts.

In some of the towns, child welfare work is carried on by voluntary associations which in some cases is aided by the municipalities concerned.

A statement showing particulars of deaths due directly to child bearing and compiled under the headings of the International List (1929) for the municipal towns employing qualified health officers is given below :—

Name of Town.	Septic abortion.	Abortion (Non-septic.	Ectopic gestation.	Other accidents of pregnancy.	Puerperal sepsis.	Puerperal alb. and convulsions.	Other toxæmias of pregnancy.	Embolism and sudden death.	Other accidents of child birth.	Other or unspecified conditions of the puerperal state.	Anaemia.
I		3	4	5	6	7	8	9	10	11	12
Karachi	5	..	..	36	2	4	2	4	8	5
Hyderabad .. ..	..	..	..	46	..	5	..	1	..	10
Sukkur .. 25	1	..	..	11	..	..	1	..	..	3
Shikarpur .. ..	..	2	4	1	..	3	..	8	..	4

Note.—3 deaths due to Consumption, 1 Asthamā, 1 Malaria, 5 Post partum Haemorrhage, 2 Eclampsia and 1 obstructed colour.

Note.— Particulars of the remaining deaths could not be collected for want of satisfactory statistical record.

6. The Government pays grants-in-aid to the following :—

	Rs.
(1) Lady Dufferin Hospital, Karachi. ...	25,000
(2) Lady Dufferin Hospital, Shikarpur. ...	5,000
(3) Baker Mission Hospital, Larkana. ...	2,000
(4) Alexandra Mission Hospital, Sukkur. ...	1,200
(5) Lady Graham Dais Improvement Scheme ...	3,000
(6) Zanana Mission Hospital, Hyderabad. ...	2,380
(1) Margaret Gibson Maternity Home, Sujawal. ...	1,000
(8) Karachi Health Association. ...	2,000
(9) Female Dispensary, Tando Adam. ...	2,050
(10) R. B. Candiram Verhomal Maternity Home, Rohri. ...	1,000
(11) Ishwaribai Maternity Home, Shikarpur. ...	500
(12) Red Cross Society. ...	2,000
Total ...	<u>47,130</u>

CHAPTER XI.

SOCIAL HYGIENE AND MEDICAL INSPECTION OF SCHOOL CHILDREN.

1. Medical Inspection of School Children continued to be done by the Sind Subordinate Service Medical Officers in-charge dispensaries.

During the year under report, the number of school children examined was 67,487 as against 63,596. The principal defects noted were :—

Enlarged spleen, enlarged tonsils, diseases of the eye, ear, teeth, respiratory system and digestive system, malaria, anaemia, etc.

It is under consideration to evolve a form for the use of the Medical Officers in which they should enter the results of their examinations. The question of revising the present system is also under consideration.

2. The Government Inspectors of Sanitation and Vaccination visited 105 schools to inspect the vaccinal condition of the school children and to inspect sanitation, ventilation and water-supply. Of 2,985 children examined, 675 were found to have enlarged spleens. They delivered 83 lectures on tuberculosis and general hygiene.

3. In accordance with the recommendation of the Central Advisory Board of Health (1939), the local bodies in the Province were suggested to introduce a system of medical inspection of all school children before admission into the schools. This did not find favour with them. At present medical inspection of school children is being done in Hyderabad town where the Municipality have engaged part-time services of a local medical practitioner. This, it has been reported, has proved useful.

CHAPTER XII.

HEALTH PROPAGANDA.

1. No special staff has so far been entertained exclusively for carrying on public health propaganda. The importance of this activity is not over-looked and every opportunity is taken to give instruction to the public in matters affecting health, nutrition, and the prevention of disease. This is arranged by the creation of public health stalls at Rural Reconstruction and other shows organised in the Province. A qualified clerk from the Head Office and an Inspector of Sanitation and Vaccination are put in-charge of the public health stalls and explain to visitors the significance of the exhibits. Lectures are delivered to the people who assemble at these shows. It has been noticed that the Public Health Stalls have proved of interest and receive all round appreciation. A separate staff for this is absolutely necessary, and a scheme in this connection has been submitted to the Government, and accepted in principle.

The Medical Officer In-charge of the Government Motor Travelling Dispensaries have been supplied with magic lanterns and propaganda material.

The work done by other agencies was as shown below :—

1. *Isardas Asanmal Health Association, Karachi.*—The Health Visitor paid visits to 5,156 houses, talked to 10,312 women, paid visits to 1,579 ante-natal cases and discovered pregnant women, revisited 861 pregnant women, visited 1,034 post-natal cases.

The Association was given a grant-in-aid of Rs. 2,000 by the Government.

2. *Red Cross Society*.—Popular Health propaganda was carried on throughout the year. Twenty-five lectures on general health and on various diseases were organised in schools and other public institutions.

The Society maintained 4 maternity homes and two maternity and child welfare centres and one dais training school.

Junior Red Cross.—The number of groups during the year 1940 totalled 273 with 14,081 members. The Juniors carried the message of health in rural areas by organising processions, free distribution of quinine and cleaning the villages. Propaganda was done in all districts during smallpox and cholera epidemics.

3. *Provincial Public Health Department*.—In addition to what has been described in paragraph 1 above, the Medical Officers in-charge Government Motor Travelling Dispensaries also carried out propaganda work. Propaganda was done by the Inspectors of Sanitation and Vaccination as well.

Anti-malaria propaganda.—As usual anti-malaria propaganda was carried on with the aid of pictorial posters. Leaflets on malaria were widely distributed and cheap mosquito net was demonstrated at the Shows as well as by the Touring Medical Officers on anti-malaria duty and the Government Inspectors of Sanitation and Vaccination.

Tuberculosis propaganda was also carried on by means of Red Cross Illustrated Charts. The Inspectors of Sanitation and Vaccination delivered lectures on tuberculosis in schools visited by them.

CHAPTER XIII.

PUBLIC HEALTH ADMINISTRATION.

1. *General Administration of the Department—Budget allotments, increase and decrease, etc.*—The administrative head of the Public Health Department was the Director of Health Services and Inspector-General of Prisons. There was one Assistant Director of Public Health, one Officer In-charge, Chemico Bacteriological Laboratory, Karachi. The subordinate staff consisted of 5 Inspectors of Sanitation and Vaccination and 75 Vaccinators. There were three Chemical Assistants in the Laboratory. The Bacteriological Assistant continued to officiate as Officer In-charge, Chemico Bacteriological Laboratory in addition to his own duties.

The Municipalities in the Province employed 6 qualified Medical Officers of Health (3 in the City of Karachi) and 26 qualified Sanitary Inspectors.

Although section 119 of the Bombay District Local Boards Act, 1923, was amended early in 1939, making it compulsory for each District Local Board to appoint a District Health Officer, it is regrettable to note that no such appointment has been made except in the district of Larkana, where the District Health Officer had been appointed long before the said amendment.

Appendices I and I-A show the qualified health staff employed in rural and urban areas and particulars of Maternity and Child Welfare Centres, health visitors and trained dais.

Appendix II shows the annual income and expenditure of the Public Health Department during the year 1940-41. The total amount given by Government to Local Bodies as grants-in-aid towards the pay of the Health staff and vaccination establishment was Rs. 16,479. The total expenditure including this amount was Rs. 1,88,652.

2. *Selected district.*—The system introduced in 1910 by which the control of vaccination in one district in Sind, *viz.*, Sukkur, is exercised by the District Local Board of that district was continued throughout the year. It is now being considered that the control of vaccination should again rest entirely with the Government.

3. *Training of Public Health Personnel: Training of Sanitary Inspectors.*—The Karachi Municipal Corporation propose opening classes for the Sanitary Inspectors' Course. The Government of Sind were pleased to extend their recognition to the same. The classes were however not conducted during the year under report.

CHAPTER XIV.

(This chapter and all statistical tables connected therewith refer to the period from 1st April, 1940 to 31st March, 1941.)

1. *Change in the strength of establishment.*—As a result of the appointment of more Public vaccinators, the vaccination establishment increased from 65 to 75.

2. *Primary Vaccinations.* (*Appendix IV, Statement I*).—The number of persons primarily vaccinated was 145,112 as compared with 142,408 in the previous year showing an increase of 2,704.

3. *Results.*—Out of 1,45,112 primary vaccinations, 1,34,613 or 92.76 per cent. were successful and 173 or 0.12 per cent. were unsuccessful and in the remaining 10,326 cases or 7.12 per cent. the results could not be ascertained. 12 persons were vaccinated a second time owing to the failure of the first operation.

4. *Age and Sex.*—Out of 145,112 primary vaccinations 76,890 or 52.99 per cent. were infants under one year of age, 61,304 or 42.24 per cent. children between the ages of one and six years and 6,918 or 4.77 per cent. of children over six years of age. By sex 77,744 were males and 67,368 were females equal to a proportion of 115.04 to 100.

5. *Revaccination.* (*Appendix IV, Statement I*).—56,863 persons were revaccinated during the year under report as against 73,605 in the previous year.

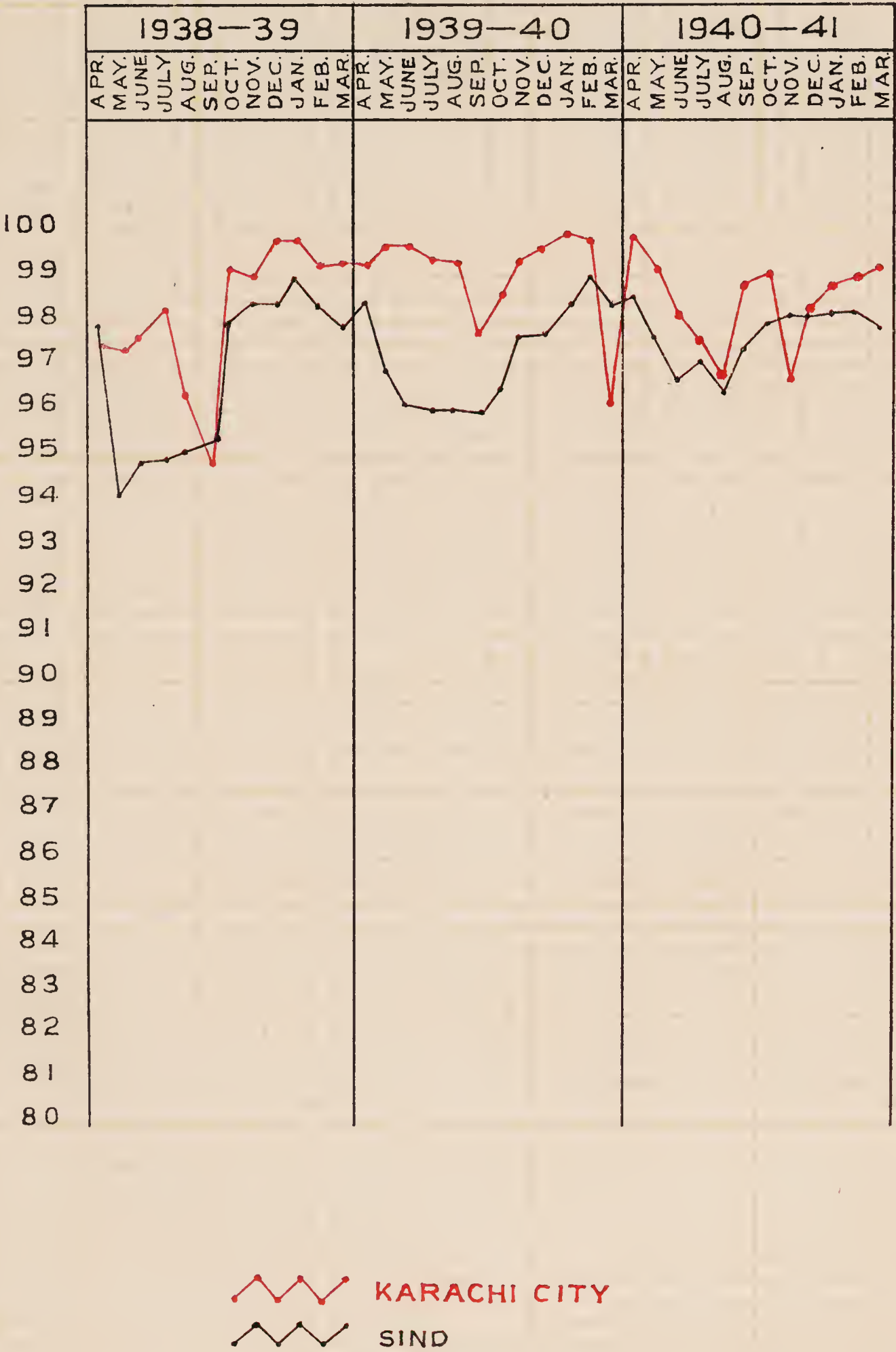
The percentage of successful revaccination was 6.54. The results could not be ascertained in 45.02 per cent. of cases.

6. *Vaccination of Pilgrims in Karachi.*—The outward Haj season commenced from the 18th November 1940, and terminated on the 23rd December, 1940. The total pilgrims sailed from the port of Karachi to Jedda was 2,143 of these 1,854 were males and 440 females excluding the number of children of both sexes which was 34. The temporary vaccination establishment consisted of one male vaccinator and one female vaccinator, one clerk and one cooly. The work of the vaccinators was, as usual, supervised by the Superintendent of Vaccination, Karachi Municipal Corporation. The total expenditure on the establishment was Rs. 214-11-6.

7. *Primary and Revaccination in Indian States.*—In accordance with the Government, General Department, Resolution No. 9083, dated the 8th February, 1935, the control of supervision of vaccination work in Khairpur State was handed over to the State from 1st April, 1935.

CHART VIII

INSERTION SUCCESS RATES OF PRIMARY VACCINATIONS WITH GLYCERINATED LYMPH IN THE PROVINCE OF SIND AND KARACHI CITY FOR THE YEARS 1938-39, 1939-40 AND 1940-41.



8. *Cost of Vaccination*.—The cost of vaccination amounted to Rs. 1,16,570 as against Rs. 1,13,384 in the previous year. The average cost of each successful case of vaccination was Re. 0-13-6 as compared with Re. 0-13-6 in the previous year.

9. *Vaccine Institute*.—There is no Vaccine Institute in Sind. Supplies of glycerinated calf lymph continued to be obtained from the Vaccine Institute, Belgaum. 24,980 doses of lymph were sent for and stored in the Head Office refrigerator for emergent use, of which 23,015 doses were supplied to the vaccinators in addition to their regular weekly supplies.

10. *Compulsory Vaccination*.—Vaccination is now compulsory in all Municipal towns in the Province. During the year under review 242 prosecutions were instituted under the provisions of the Compulsory Vaccination Acts. Out of these 195 persons got their children vaccinated before the cases were heard, 7 were fined, 5 died, 3 were warned, 25 are pending, 2 were not traceable and 5 were withdrawn.

The question of introducing the system of compulsory vaccination in rural areas had been under consideration for some time. As a first step towards the realization of this object, the Sanitary and Notified Area Committees situated at the taluka headquarters were persuaded to agree to the extension of the provisions of the Compulsory Vaccination Act within their limits. The response is not discouraging. Efforts in this connection are not relaxed and it is expected very soon vaccination will be compulsory within the limits of the Sanitary and Notified Area Committees.

11. *General Remarks*.—Separate Public Vaccinators are being appointed in the Municipal towns to which the provisions of the Compulsory Vaccination Act have been of late extended.

12. *Ill effects of vaccination*.—No ill effects were reported to have occurred after vaccination.

During the year 1940-41, 8 candidates were trained in vaccination. There were in all 16 candidates on the list of waiting candidates for service in the Province.

CHAPTER XV.

OTHER PUBLIC HEALTH SERVICES.

1. *Public Health Laboratory.* The *Chemico Bacteriological Laboratory, Karachi.*—Mr. H. C. Hiranandani, Bacteriological Assistant continued to officiate as Officer In-charge, Chemico Bacteriological Laboratory throughout the year. There are two sections in the laboratory, *viz.*, a Chemical Examiner's Section and a Public Health Section. The report in respect of the former is published separately.

2. The total number of samples examined during the year under report was 7,606 as against 7,838 in the previous year.

The details of the work during the year under report compared with the previous 5 years are given in the following table :—

Kind of samples.	1936.	1937.	1938.	1939.	1940.
Chemical examination of water ..	895	461	446	455	442
Bacteriological examination of water.	1,508	2,110	2,711	2,204	2,462
Public Analysts work ..	3,940	3,857	5,054	4,672	4,228
Chemical examination of foodstuffs.	120	113	180	106	34
Diagnostic work	3,541	13,616	3,817	388	428
Miscellaneous	2	57	7	13	12
Total ..	10,006	20,214	12,215	7,838	7,606

3. *Examination of water supplies :—*

Karachi.—Bacteriological examination of raw water is done daily. 291 such samples were examined. The number of samples examined after purification by chlorine was 1,453. In addition to the daily examinations, extra samples were received for bacteriological examination. These were collected from various houses in different localities where cases of continued fever were reported or complaints received as regards possible contamination of the water. The number of samples of this nature totalled 593. Other examinations included 48 samples for chemical analysis of water and 15 samples for mineral matters.

Hyderabad.—29 samples were received for bacteriological examination as against 12 in the previous year.

With a view to provide liberal facilities, the Municipality has been suggested to pay a fixed annual contribution towards the Laboratory in consideration of which the number of samples to be examined will be more than what would have been the case if a retail charge of Rs. 5 were levied.

Sukkur.—The number of samples examined bacteriologically and chemically was 70 and 16 respectively. The corresponding number of samples during the previous year was 37 and 13 respectively. The municipality pays a fixed annual contribution of Rs. 640.

Jacobabad.—The municipality pays a fixed annual contribution of Rs. 150 for the examination of water for a fixed number of 36 samples. It is rather curious on the part of the municipality to have sent only 3 samples for chemical examination during the year under report.

The Officer In-charge, Chemico Bacteriological Laboratory, Karachi, inspected Sukkur, Rohri and Jacobabad water works. He also investigated as to the causes of contamination of the water at Kotri.

4. *Diagnostic work.*—In the year 1937, the Government prescribed provisionally, for a period of three years in the first instance, a flat rate of rupees two for the bacteriological examination at the Laboratory, of each sample of material sent by any local body from cases of infectious diseases. Practically no advantage of this was taken by local authorities as, during the period of 2 years and 4 months, only three samples were sent for examination. As it was felt very strongly that the examination of materials from infectious disease cases was absolutely necessary, Government were pleased to direct that for a period of one year, in the first instance, five samples of materials from cases of infectious diseases sent by local bodies for bacteriological examination at the Chemico Bacteriological Laboratory, Karachi, should be examined free of charge. It was further directed that any sample in excess of this number should be examined at the rate of Re. 1 per sample.

5. The Government issued orders in November 1939, that for a period of one year all analytical work sent to the Chemico Bacteriological Laboratory, Karachi, on behalf of in-patients at the Government or Government aided hospitals and dispensaries who are exempted from the payment of hospital or dispensary fees, is to be done free of charge. After the expiry of one year it was found that full advantage had not been taken of the above orders. It was therefore deemed necessary that the concession so afforded should continue for a period of three years and that it should be extended to out-patients as well. This was accepted by the Government and necessary orders on the subject have been issued. During the year under report 149 samples of various nature of

diagnostic materials were examined as against 32 in the previous year.

The Karachi Municipal Corporation have made their own arrangements for the bacteriological examinations.

Diagnostic work was sent to the Laboratory by the Assistant Director of Public Health, Inspector-General of Prisons, Port Health Officer, Karachi, and private parties.

6. *Food Adulteration*.—The following more were added to the list of the Municipal towns in which the provisions of the Bombay Prevention of Adulteration Act, 1925, were extended:—

Mirpurkhas, Tando Adam.

The question of the payment of annual contribution for the examination of articles of foodstuffs at the laboratory, was under consideration.

With a view to effecting a check as far as possible on the adulteration of milk and ghee in rural areas, a scheme has been submitted to the Government which is receiving their attention. The salient features of this scheme are the appointment by the Government of the Food Inspectors, and shouldering the entire responsibility consequent upon the enforcement of the provisions of the Bombay Prevention of Adulteration Act, 1925. Some of the minor municipalities whose financial condition is represented to be poor also come within the scope of the said scheme.

6. (a) *Working of the Bombay Prevention of Adulteration Act, 1925*.—The number of samples of ghee, butter and milk and the percentage of adulteration is shown in the following table:—

Town.	Ghee and butter.		Milk.	
	No. of samples.	Percentage of adulteration.	No. of samples.	Percentage of adulteration.
Karachi	959	14·3	1,635	17·8
Shikarpur	140	30·7	18	..
Sukkur	108	42·5	59	15·2
Tatta	6	16·6	..	..
Tando Adam	2	..	..	..
Mirpurkhas	24	75·0	17	41·2
Larkana	3	33·0	..	..

The following statement gives indication of prosecutions and results thereof :—

Name of town	No. of prosecution.	No. acquitted.	No. withdrawn.	No. convicted.	No. pending.	Extent of fines.
Karachi	583	1	8	538	36	Maximum fine imposed Rs. 50.
Shikarpur	46	..	..	28	18	Maximum fine Rs. 150 and minimum Rs. 10.
Sukkur	11	..	9	2	..	Each fined Rs. 5.
Tatta	1	..	..	1	..	Rs. 15.
Tando Adam .. ..	..	..	..	..	..
Mirpurkhas	9	..	..	..	9	Maximum fine Rs 20.
Larkana	4	..	..	4	..	

It will be seen from the above statement that 9 cases were withdrawn by the Sukkur municipality. This was done, it is reported, because the parties concerned paid analysis charges and other expenditure. This action of the Municipality is unwarranted. The cases should not have been withdrawn.

Financial position.—Total receipts during the year 1940-41 amounted to about Rs. 36,000 and the expenditure was Rs. 26,298-9-2.

7. *Industrial Hygiene including Hygiene of Mines.*—Both the Director and Assistant Director of Public Health made inspection of factories (registered under the Factories Act). Reports on the defects noticed were sent to the management of the factories. Special attention was paid to light, ventilation, water-supply, sanitary arrangements, lime washing, first aid outfits and arrangements for the welfare of the workers.

There are no mines in Sind.

CHAPTER XVI.

GENERAL REMARKS.

1. *Nutrition*.—Mr. O. M. Akbani, M.B., B.S., D.P.H. (London), Assistant Director of Public Health, Sind, who had received training in nutrition at the Nutrition Research Laboratories, Coonoor, has been paying as much attention as possible to this important subject. The work done in this connection is briefly described as under :—

(i) Propaganda with the aid of nutrition charts has been carried on at Rural Reconstruction and other shows organised in this Province. Articles of foodstuffs arranged in order of “ Well balanced ” and “ Ill balanced ” diets were exhibited and the significance of these was explained to visitors to the public health stall.

(ii) Nutrition charts were printed in Sindhi and distributed free of charge among teaching institutions.

(iii) A pamphlet on ‘ MILK ’ was prepared and printed. This was widely distributed.

(iv) A simple pictorial poster illustrating the value of milk as a food is under preparation and will be issued shortly.

2. *Stegomyia mosquito control in Major Sea Ports in India*.—A conference was held in the office of the Director of Health Services, Sind, on 26th October, 1936, with a view to ascertaining by mutual discussion whether it would be possible for the various authorities concerned to undertake a “ Stegomyia Index ” for the areas in and around the City of Karachi, including the marine airport and the airport at Drigh Road.

As a result of the decision arrived at the “ Stegomyia Index Conference ” the various local authorities take necessary measures and forward a monthly statement of “ Stegomyia Index ” which in turn is consolidated and sent to the Public Health Commissioner with the Government of India every month.

(1) *Karachi Port Trust*.—Anti-stegomyia measures in the harbour area and the adjoining Karachi Port Trust Estate were carried out throughout the year under the direction of the Port Health Officer, Karachi. A separate staff, including one Medical Officer and one qualified Sanitary Inspector was entertained by the Karachi Port Trust for the purpose. All newly arrived Country Crafts are inspected for mosquito breeding.

(2) *Karachi Municipal Corporation*.—In addition to the Mosquito Brigade maintained by the Karachi Municipal Corporation one munshi and three coolies have been exclusively entertained for working out systematically the ' *Stegomyia* Index ' for the islands of Baba, Bhit, Bunker and Shamspir.

(3) *Karachi Cantonment Area*.—No establishment has been exclusively entertained. The work was carried out by the Anti-malarial squads.

(4) *North-Western Railway, Karachi*.—No special staff solely for this purpose was engaged. The work was carried out by the anti-malaria squads working for the destruction of mosquitoes and their larvae wholesale. The occupants of the houses were actually given a demonstration by showing them in the larvae breeding in the chaties in their houses.

(5) *Airport Area*.—The staff engaged on this work was the Airport anti-mosquito gang assisted by the coolies engaged out of a special District Local Board, Karachi, grant of Rs. 360.

(6) *Drigh Road Cantonment*.—The Drigh Road Cantonment is controlled by the S.E.M.O. Drigh Road and includes the Ordance lines and a Native Bazar. The Royal Air Force supply four anti-malarial coolies and the Sind Brigade, Western Command, two coolies. In times of very heavy rains when extra labour is required the Royal Air Force camp sweepers are co-opted into helping, or if not available then extra anti-malarial coolies are employed and paid out of the Anti-malarial Funds.

Breeding places of mosquitoes were looked for and were dealt with. Pools were emptied either by the water pump or drainage channels. Pools which were too large to be emptied were oiled. Malariol was also used. Supervision was kept over all collections of water, such as fire-buckets, pumps and tanks which were emptied every week.

All buildings in the Cantonment area were regularly searched for mosquitoes, and places harbouring them were sprayed with " Substitute Flit " .

(7) *Manora Cantonment*.—There are three areas supervised, viz., (1) Military, (2) R.I.N. and (3) Karachi Port Trust. One sweeper is employed by the Karachi Port Trust while the former two employed no special staff for the purpose. The supervision was carried out by the Medical Officers in each area.

3. *Public Health Act*.—There is no Public Health Act for the Province of Sind.

4. *Public Health Essays*.—No remarks.

5. *Board of Public Health Works*.—The following is a brief note on the work done by the Board of Public Health Works in Sind in the year 1940 :—

The project for the Drainage of Kambar town estimated to cost Rs. 1,00,000 was approved by the Board of Public Health Works for Sind and technically sanctioned by the Consulting Public Health Engineer to Government of Sind.

2. It is proposed to finance the scheme by raising a loan and the Administrator of the Kambar Municipality is anxious to carry out the work through a special staff to be appointed for the purpose, as soon as permission to raise a loan is granted and funds are made available.

3. The total cost of the projects approved by the Board so far, amounts to Rs. 44,45,773. Further more, the schemes for a Rapid Filtration plant for Hyderabad Water-Supply, and the Hyderabad Drainage (partial scheme) first stage estimated to cost Rs. 10,00,550, approved by the Board of Public Health Works for Bombay Presidency before Sind was constituted into a separate Province, are also pending execution.

4. Out of these projects, the work of improvements to Sukkur water-supply Distribution System estimated to cost Rs. 3,92,500 is nearing completion. The scheme pertaining to the improvements of Karachi Water Supply are estimated to cost Rs. 29,80,748 out of which, schemes costing Rs. 2,49,213 have been completed and the work on the remaining main Improved Pressure Scheme of the Karachi Water Supply Distribution System (estimated cost Rs. 27,31,535 approved in 1939) has also been started.

5. For the scheme of the Rapid Filtration plant for Hyderabad Water Supply, the Municipality has been granted permission to raise the required loan to carry out the work, but presumably due to the war, it has been postponed for the present. The drainage scheme for Hyderabad will be carried out after permission for the raising of a loan to finance it is granted and funds are raised for the purpose.

6. The remaining two schemes for the drainage of the town of Jacobabad and improvements to the water-supply (estimated cost Rs. 5,72,525) and the Larkana Drainage estimated cost Rs. 4,00,000 have also not been started as yet. The Administrator, Larkana Municipality is anxious to start part of the Larkana Drainage scheme in the year 1941, whereas for the Jacobabad water-supply improvement scheme, although

permission to raise a loan to finance scheme has been granted long ago, the municipality has not been able to raise the requisite funds to do the work.

7. The following municipalities have called for the preparation of plans and estimates for improvements to their present water-supply and drainage :—

Sukkur Municipality.—The Municipality is preparing a scheme for improvements to the drainage of the whole town, which stands in very bad need of such an improvement. The question for the site of the sullage farm has been settled now.

Mirpurkhas Municipality.—The Municipality has appointed a special staff to prepare a water-supply and drainage scheme for the town. The necessary plans and estimates for the two schemes in question are under preparation.

Kotri Municipality.—The plans and estimates for the water-supply and drainage schemes of Kotri town had been prepared. It has been sent to the Municipality for approval. The drainage scheme is also being prepared.

Shahdadpur Municipality.—The preliminary scheme for drainage will be prepared shortly as soon as the survey work is finished.

Garhi Yassin Municipality.—The Municipality has been asked to furnish requisite data to prepare a drainage scheme for the town.

Furthermore, the small municipalities of Umerkot, Rato-dero and Tando Allahyar have also shown their desire to improve the drainage of their towns; and Tatta and Manjhand Municipalities require water-supply schemes. They have been asked to supply the necessary data in order to proceed with the preparation of the schemes.

6. *Problems of Public Health, Co-operation between various local authorities.*—Sanitary Boards to ensure the co-operation of local authorities in the area have been formed at all District Head-quarter towns. Of these regular monthly meetings are held only by the Karachi Sanitary Board. It has been reported that the attendance of all members had been most regular with the exception of the District Board representative who had been conspicuous by his absence. It has also been reported that there had been great co-operation between the various members of the Board who had been able to assist each other during the cholera epidemic. This Board has been recognised by the Government of Sind.

7. *Personal Proceedings and Office.*—The following table shows the various officers who held the appointments in the Public Health Department during the year under report:—

Appointment.	Name.	Period.	Remarks.
Director of Health Services and Inspector General of Prisons.	Lieut.-Col. N. Briggs, M.R.C.S (Eng.), D.P.H, I. M. S.	1st January to 31st December 1940.	..
Assistant Director of Public Health, Sind.	Mr. O. M. Akbani, M.B., B. S. (Bom.), D. P. H. (London).	Do.	..
Officer In-Charge, Chemico Bacteriological.	Mr. H. C. Hiranandani.	Do.	Officiating in addition to his own duties.

The post of the Officer In-charge, Chemico Bacteriological Laboratory, Karachi, and the Chemical Examiner to the Government was not permanently filled in till the end of the year.

The Director of Health Services and Inspector-General of Prisons, Sind, attended the meetings of the Executive Committee of St. John's Ambulance Association, Red Cross Society, Hiranand Leper Asylum, Countess of Dufferin's Fund, Sind Provincial Council, Sind Provincial Tuberculosis Association, and remained as Chairman of the Red Cross Maternity and Child Welfare Sub-Committee. He inspected the Sanitary conditions of the towns and advised the Municipalities concerned on public health measures.

The Assistant Director of Public Health, Sind, inspected the sanitary conditions of the Municipal towns as well as Sanitary and Notified Area Committees and made out a report embodying the defects noted and their remedial measures. He also inspected the Police Lines and Sub-Jails and dispensaries and brought to the notice of the authorities concerned the improvements from the public health view point. He inspected factories in his capacity as *Ex-officio* Inspector of Factories, approved site plans for construction of school buildings and wells and gave opinion on the analytical results of samples of water examined at the Chemico Bacteriological Laboratory, when asked to do so. He gave practical training to the touring medical officers appointed on anti-malaria duty, at Hyderabad for a week. He visited Sukkur specially in connection with the mosquito menace. He attended the Lal Shahbhaz Fair and took necessary measures in conjunction with the Collector and the District Medical Officer. He delivered lectures in Hygiene to the Hyderabad Medical students and gave them practical demonstrations at Karachi. He attended the meetings of

the Karachi Sanitary Board. In the course of his visit to Dadu town he availed of the opportunity to attend the meeting of the Sanitary Board of that place. He went round the cholera affected localities in the City of Karachi as well as upcountry.

The Inspectors of Sanitation and Vaccination gave lectures on tuberculosis in the schools, and inspected the vaccinal condition of school children. They attended fairs held in their beats and took necessary measures. They inspected the sanitary conditions of the Sanitary Committee and Notified Area Committee villages. They checked the vaccination work performed by the vaccinators by personal visits to the villages and by calling out the names of the children from the registers and noted the results. The Inspectors paid periodical visits to the areas selected for intensive rural reconstruction work. They also worked in the cholera affected areas.

Office staff.—After the separation of Sind, the Offices of the Director (Public Health Department) and Assistant Director were combined and two more junior clerks were appointed. There has been alround increase in the work and the staff is overworked. The manner in which the entire staff worked in close co-operation and discharged their duties efficiently, is highly appreciated.

The Laboratory staff also worked well.

O. M. AKBANI, D.P.H. (London),
Director of Health Services, Sind, Karachi.

Karachi, 27th September, 1941.

Table showing Health Services in Rural and Urban Areas

Districts.			Rural areas.							
			Medical Officers of Health.				Epidemic staff.	Sanitary and Health In- spectors.	Vaccinators.	
			Holding D. P. H.		Licentiates L. P. H. S.				Male.	Female.
			Whole time.	Part time.	Whole time.	Part time.				
1			2	3	4	5	6	7	8	9
Karachi	9	...
Dadu	8	...
Hyderabad	11	...
Nawabshah	10	...
Thar Parkar	13	...
Larkana	1 (Holding M.B. B.S., degree.)	...	1	...	8	4
Sukkur	9	...
Upper Sind Frontier	6	...
Total	1	...	1	...	74	4

as in the Province of Sind during 1940.

		Urban areas.									
Political Officers.	Other Health staff.	Medical Officers of Health.				Sanitary and Health Ins- pectors.	Vaccinators.		Ins- pectors of Vacci- nation.	School Medical Officers.	Other Health staff.
		Holding D. P. H.		Licentiates L. P. H. S.			Male.	Female.			
		Whole time.	Part time.	Whole time.	Part time.						
10	11	12	13	14	15	16	17	18	19	20	21
..	...	3	...	3	...	8	5	2	...	...	...
..	3	...	...	...	...
..	...	1	...	..	...	4	3	...	1 (Superintendent of Vaccination).	1 (Part time).	...
..	2	3	..	...	...	...
..	1	1	...	...	...	...
..	2	3	...	...	...	...
..	...	2	...	...	...	8	3	...	...	...	...
..	1	1	...	...	...	...
...	...	6	..	3	...	26	22	2	1	1	...

APPENDIX I-A.

Table showing maternity and child welfare centres health visitors, mid-wives and dais in rural and urban areas in the Province of Sind during 1940.

District.	Maternity and Child Welfare Centres maintained by—						Trained visitors.		Trained mid-wives.		Trained dais.	
	Govern- ment.		Local and Municipal Bodies.		Other agencies.							
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
Karachi	1	6	...	2	...	4	..	6	1	
Ladu	5	...	...	2	...	...	...	3	5	
Hyderabad	2	1	...	1	...	...	...	1	1	
Nawabshah	2	...	...	...	2	5	
Thar Parkar	1	1	...	...	...	...	...	1	8	
Larkana	18	1	...	1	...	...	2	...	17	
Sukkur	1	1	4	4	...	1	...	9	6	
Upper Sind Frontier...	1	1	1	2	...	...	1	2	3	
Total	29	11	5	14	...	5	3	24	46	

APPENDIX II.

Statement showing the annual Income and Expenditure of Institutions under the Public Health Department,

Sind, during the year 1940-41.

No.	Name of Institute.	Income.						Expenditure.						Total.
		Sale proceeds of sera vaccines, quinine and malaria posters, etc.	Contri- bution	Mis- cellane- ous.	Recovery of over payments.	Collection of fees for services rendered.	Deduct refunds.	Total.	Pay of officers and leave salaries, etc.	Pay of Establish- ment including menials,	Allowan- ces.	Contin- gencies.	Grant-in-aid to Local Bodies.		Other charges including ex- penditure on Medical Officers appointed on malaria, quinine, etc.
1	Director of Health Services and Assistant Director of Public Health, Sind.	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. 15,007	Rs. 20,482	Rs. 6,763 651(a)	Rs. 3,773	Rs. 11,109(b)	Rs. 54,246	Rs. 9,967 Charged. 1,01,503 Voted. 651 Charged.
2	Chemico-Bacteriological Laboratory, Karachi.	15,649	39,577	36,761	10	11,234	—348	5,021	11,770	3,186	6,339	...	...	26,316 Voted.
3	Local Vaccination Establishment.	...	...	...	...	...	...	...	34,432	10,503	...	5,280(c)	...	50,215 Voted.
	Total ...	15,649	39,577	36,761*	10*	11,234*	—348	20,028	66,684	21,103	10,112	16,479	54,246	10,618 Charged. 1,78,034 Voted.

* These includes amounts pertaining to Anti-Rabic charges, fees realised by the Consulting Public Health Engineer and Consulting Surveyor to the Government of Sind.

(a) Sterling overseas pay of the Director of Health Services and Inspector-General of Prisons, Sind.

(b) Grant-in-aid to municipalities in connection with the employment of subsidised health staff.

(c) Grant-in-aid to District Local Boards, Sukkur and Larkana, and municipalities in the Sukkur District on account of vaccinators.

Annual statement showing the Births registered

1 No.	2 Districts and Towns and Rural Circles.	3 Population according to Census of 1931.			4 Number of Births registered.		
		Male.	Female.	Total.	Male.	Female.	Total.
1	Karachi	3,28,679	2,50,753	5,79,432	10,337	9,054	19,391
2	Hyderabad	3,71,097	2,90,679	6,61,776	5,290	3,944	9,234
3	Nawabshah	2,79,032	2,17,580	4,96,612	5,587	4,172	9,759
4	Thar Parkar	2,61,945	2,06,095	4,68,040	4,558	3,777	8,335
5	Larkana	2,50,178	2,01,963	4,52,141	5,707	4,404	10,111
6	Dadu	1,87,071	1,47,211	3,34,282	3,865	2,871	6,736
7	Sukkur	3,49,312	2,74,467	6,23,779	8,335	6,797	15,132
8	Upper Sind Frontier	1,45,588	1,14,738	2,60,326	1,950	1,344	3,294
9	Town Circles	3,96,171	2,89,031	6,85,202	15,328	13,556	28,884
10	Rural Circles	17,76,731	14,14,455	31,91,186	30,301	22,807	53,108
11	Grand total of the Province.	21,72,902	17,03,486	38,76,388	45,629	36,363	81,992

FORM NO. I (a). *Annual statement showing still-births registered during*

Serial No.	Districts.	Still-births					
		Muhammadans		Hindus.		Jains.	
		Male.	Female.	Male.	Female.	Male.	Female.
1	Karachi	109	106	160	135	...	...
2	Hyderabad	29	20	89	83	...	...
3	Nawabshah	7	5	19	12	...	...
4	Thar Parkar	3	...	...	2	...	...
5	Larkana	18	16	28	20	...	...
6	Dadu	6	8	7	11	...	...
7	Sukkur	22	24	113	85	...	...
8	Upper Sind Frontier	1	1	1	1	...	...
	Total, of the Province ...	195	180	417	349		...

l.

o. l.

the Districts of the Province of Sind during 1940.

5			6		
Ratio of Births per 1,000 of population.			Mean Ratio of Births per 1,000 during previous five years.		
Male.	Female.	Total.	Male.	Female.	Total.
17·84	15·63	33·47	16·35	14·49	30·84
7·99	5·96	13·95	8·49	6·57	15·06
11·25	8·40	19·65	9·24	6·47	15·71
9·74	8·07	17·81	9·97	7·73	17·70
12·62	9·74	22·36	12·80	10·00	22·80
11·56	8·59	20·15	10·15	7·62	17·77
13·36	10·90	24·26	13·14	10·51	23·65
7·49	5·54	13·03	8·60	6·25	14·85
22·38	19·78	42·16	20·67	18·53	39·20
9·49	7·15	16·64	9·34	6·93	16·27
11·77	9·38	21·15	11·34	8·99	20·33

*according to the classes and sex in the Districts of the Province of Sind
the year 1940.*

ths,

Christians.		Parsis.		Other classes.		Total.			Percentage Ratio to live births.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.	
8	6	1	...	...	...	278	247	525	2·75
...	1	...	...	...	...	118	104	222	2·40
...	...	...	...	...	...	26	17	43	0·44
...	...	...	...	...	...	3	2	5	0·06
...	...	...	...	...	...	46	36	82	0·81
...	...	...	...	...	...	13	19	32	0·47
...	...	...	...	...	...	135	109	244	1·61
...	...	...	...	...	...	2	2	4	0·12
8	7	1	...	...	...	621	536	1,157	1·41

Annual statement showing the Deaths registered in the

1 Serial Number.	2 Districts,	3 Area in square miles.	4 Average population per square mile.	5 Number of deaths registered.		
				Male.	Female.	Total.
1	Karachi R. C. ...	1,615	23	143	116	259
2	Tatta „ ...	1,318	46	166	98	264
3	Mirpur Sakro „ ...	1,138	30	220	177	397
4	Ghorabari „ ...	339	69	113	119	232
5	Ketibundar „ ...	213	63	41	34	75
6	Mirpur Bathoro „ ...	272	158	253	173	426
7	Sujawal „ ...	269	14	228	163	391
8	Jati „ ...	1,475	23	192	149	341
9	Shahbandar „ ...	1,388	29	267	221	488
10	Karachi T. C. ...	} 62	4,098	3,698	3,225	6,923
11	Karachi C. C. ...			76	48	124
12	Drigh Road „ ...			4	2	6
13	Tatta T. C. ...	...	...	42	38	80
Total, Karachi District...		8,089	72	5,443	4,503	10,000
14	Hyderabad R. C. ...	366	212	356	246	602
15	Guni „ ...	987	106	350	244	594
16	Tando Bago „ ...	650	105	350	276	626
17	Badin „ ...	792	113	453	328	781
18	Tando Allahyar „ ...	595	103	352	227	579
19	Hala „ ...	511	222	451	328	779
20	Matli „ ...	498	94	461	313	774
21	Hyderabad T. C. ...	} 18	5,334	1,753	1,422	3,175
22	Hyderabad C. C. ...			10	4	14
23	Hala T. C. ...			54	58	112
24	Matiari ... .. „ ...	...	...	29	29	58
25	Tando Muhammadkhan ... .. „ ...	...	...	80	68	148
26	Nasarpur ... .. „ ...	...	...	47	28	75
27	Tando Allahyar ... .. „ ...	...	...	39	37	76
Total, Hyderabad District ...		4,417	150	4,785	3,608	8,393

contd.

II.

Districts of the Province of Sind during the year 1940.

6										7		
Deaths per 1,000 of population from										Mean ratio of deaths per 1,000 during previous five years.		
Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.
							Male.	Female.	Total.			
...	...	3.70	0.03	2.52	0.06	1.05	7.68	6.99	7.36	9.45	9.39	9.42
0.41	...	2.58	0.08	0.84	0.14	1.14	5.76	4.43	5.19	6.31	6.24	6.22
0.26	..	5.85	0.06	2.94	0.23	2.21	11.72	11.35	11.55	9.42	8.98	9.22
0.20	...	3.74	0.08	3.19	0.24	2.05	8.31	11.00	9.50	8.52	9.15	9.33
0.30	...	2.44	0.07	1.03	0.07	1.62	5.67	5.33	5.53	8.01	7.90	7.97
0.26	...	4.13	0.24	3.27	0.28	1.77	10.55	9.19	9.95	10.73	9.18	10.53
0.55	...	5.17	0.05	2.95	0.16	1.45	10.80	9.09	10.33	11.31	9.92	10.69
0.23	...	5.03	0.23	2.54	0.14	1.67	9.99	9.65	9.84	10.82	9.52	10.21
...	...	4.41	0.20	5.52	0.23	1.87	12.10	12.39	12.23	11.87	11.49	11.70
0.08	...	1.28	2.41	11.93	0.33	11.79	25.49	31.39	27.94	24.04	28.00	25.68
...	...	5.93	0.80	1.44	...	11.70	20.50	18.95	19.87	16.99	18.55	17.62
...	...	1.50	...	0.50	...	1.00	2.66	3.33	3.00	1.42	3.33	2.00
0.20	...	2.91	0.10	2.91	0.10	2.08	8.21	8.41	8.30	12.71	9.85	11.41
0.17	...	2.92	1.11	6.70	0.24	6.08	16.56	18.20	17.27	16.15	17.03	16.53
0.55	...	3.93	0.01	1.68	0.13	1.42	8.18	7.14	7.72	9.05	7.92	8.57
0.11	..	3.74	0.03	1.32	0.04	0.83	6.35	5.69	6.07	7.35	6.67	7.05
0.12	...	6.39	0.01	1.54	0.07	1.08	9.11	9.34	9.21	7.02	5.85	6.51
0.54	...	4.52	0.05	2.39	0.06	1.19	9.03	8.38	8.75	7.57	7.10	7.36
0.15	...	9.36	0.02	0.47	0.06	1.09	12.14	9.84	11.15	15.11	12.20	13.78
0.03	...	5.50	0.06	0.84	0.05	1.34	7.96	7.64	7.82	10.52	9.56	10.11
...	...	9.56	0.24	3.49	0.17	3.11	17.95	14.93	16.59	11.95	10.97	11.51
3.17	...	3.08	0.95	12.81	0.50	12.54	32.86	33.31	33.06	27.89	28.07	27.96
...	...	1.10	...	...	...	1.99	3.61	2.27	3.09	...	...	...
...	...	7.94	...	2.19	0.14	5.07	13.67	17.28	15.34	10.63	8.34	9.58
...	...	2.83	0.30	2.54	0.45	2.55	7.38	10.50	8.67	13.99	17.37	15.43
0.60	...	10.87	0.15	4.68	0.45	5.58	21.80	22.30	22.33	14.17	11.49	14.48
...	...	5.64	...	6.84	0.70	4.48	20.78	14.95	17.66	18.97	17.56	18.33
0.78	...	5.44	0.19	4.45	0.19	3.69	14.17	15.46	14.74	15.62	14.28	14.96
0.65	...	5.28	0.18	3.32	0.15	3.10	12.85	12.41	12.68	12.17	11.39	11.82

1 Serial number.	2 Districts.				3 Area in square miles.	4 Average population per square mile.	5 Number of deaths registered.		
							Male.	Female.	Total.
28	Shahdadpur ...	...	R. C.	...	561	184	551	418	969
29	Kandiaro ...	...	"	...	404	200	567	452	1,019
30	Naushahro Feroze ...	...	"	...	492	175	593	459	1,052
31	Moro ...	...	"	...	483	124	358	247	605
32	Sakrand ...	...	"	...	506	124	319	205	524
33	Nawabshah ...	...	"	...	967	58	272	216	488
34	Sinjhero ...	...	"	...	475	161	416	292	708
35	Tando Adam ...	...	T. C.	...	...	...	253	196	449
36	Nawabshah ...	...	"	...	...	...	177	140	317
37	Shahdadpur ...	...	"	...	...	...	31	47	78
	Total, Nawabshah District ...				3,888	128	3,537	2,672	6,209
38	Umarkot ...	...	R. C.	...	1,459	30	327	234	561
39	Jamesabad ...	...	"	...	505	61	378	286	664
40	Chachro ...	...	"	...	2,797	22	799	600	13,99
41	Nagar Parkar ...	...	"	...	1,618	26	340	287	627
42	Diplo ...	...	"	...	1,503	16	225	160	385
43	Mithi ...	...	"	...	1,562	29	582	424	1,006
44	Khipro ...	...	"	...	2,251	23	376	283	659
45	Sanghar ...	...	"	...	818	41	195	134	329
46	Mirpurkhas ...	...	"	...	415	115	392	312	704
47	Samaro ...	...	"	...	483	91	303	204	507
48	Digri ...	...	"	...	225	191	441	338	779
49	Umarkote ...	...	T. C.	...	...	...	36	29	65
50	Mirpurkhas ...	...	"	...	...	...	100	35	135
	Total, Thar Parkar District ...				13,636	34	4,494	3,326	7,820
51	Larkana ...	...	R. C.	...	217	329	544	449	993
52	Warah ...	...	"	...	380	148	399	337	736
53	Dokri ...	...	"	...	326	235	656	526	1,182
54	Kambar ...	...	"	...	473	173	476	441	917
55	Mirokhan ...	...	"	...	288	164	306	287	593
56	Ratodero ...	...	"	...	214	214	413	348	761
57	Shahdadkot ...	...	"	...	577	58	322	273	595
58	Larkana ...	...	T. C.	...	2	13,420	287	245	532
59	Kambar ...	...	"	...	...	...	110	104	214
60	Ratodero ...	...	"	...	...	...	112	121	233
	Total, Larkana District ...				2,477	150	3,625	3,131	6,756

II—*contd.*

6										7		
Deaths per 1,000 of population from										Mean ratio of deaths per 1,000 during previous five years,		
Small-pox.	Plague.	Fever.	Dysentery and Diarrhea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.
							Male.	Female.	Total.			
0.45	...	8.55	...	0.90	0.24	1.83	12.05	11.38	11.97	11.65	10.51	11.17
0.02	...	9.43	0.03	0.83	0.11	2.18	12.36	12.82	12.60	10.28	10.49	10.36
0.30	...	8.48	0.04	1.23	0.09	2.07	12.50	11.88	12.22	10.05	9.16	9.65
0.02	...	6.77	0.02	0.94	0.05	1.92	10.88	9.30	10.15	10.27	9.64	9.53
0.03	...	6.10	...	0.43	0.18	0.94	8.87	7.70	8.38	6.79	5.49	6.24
0.16	...	7.80	...	0.18	0.24	1.52	9.58	10.38	9.90	9.01	8.43	8.77
0.48	...	10.74	0.04	1.22	0.17	2.03	15.21	14.01	14.68	12.43	11.36	12.00
3.57	...	12.18	0.59	6.07	0.52	10.40	33.30	33.39	33.33	13.81	15.49	14.25
1.85	...	28.48	...	5.98	0.43	7.97	40.82	52.10	45.14	14.29	16.38	15.09
0.23	...	4.86	0.11	1.02	0.11	2.48	5.99	12.79	8.81	6.77	9.24	7.79
0.32	...	8.61	0.04	1.06	0.17	2.15	12.64	12.28	12.50	10.16	9.11	9.90
0.20	...	8.56	0.30	3.48	0.10	1.50	14.67	13.37	14.14	12.78	11.75	12.31
0.20	...	15.25	0.03	3.35	0.20	2.63	21.09	21.09	21.59	15.06	13.94	14.05
0.24	...	16.39	0.65	2.47	0.19	2.63	27.06	20.86	22.57	15.05	12.86	14.03
0.33	...	10.16	0.22	1.61	0.12	2.59	15.20	14.03	15.03	14.30	12.51	13.22
0.67	...	9.35	0.12	3.05	0.04	2.02	16.37	13.91	15.25	14.69	12.69	13.78
0.22	...	14.09	0.15	5.27	0.20	2.08	23.87	19.82	22.01	15.72	13.82	14.83
0.45	...	9.29	...	1.76	0.12	1.29	12.70	13.20	12.91	8.61	6.58	7.76
0.09	...	6.89	...	1.66	0.12	0.98	9.74	9.73	9.74	10.24	9.05	9.97
1.69	...	9.02	0.03	5.59	0.13	2.38	18.43	19.39	18.84	13.82	11.43	12.79
0.34	...	7.01	0.02	2.54	0.16	1.51	12.01	10.99	11.58	10.54	8.73	9.77
0.56	...	13.31	0.05	1.92	0.16	2.09	18.24	17.91	18.09	14.30	12.66	13.58
0.52	...	6.51	...	6.51	...	3.38	17.58	16.16	16.92	18.56	20.07	19.27
1.18	...	3.73	0.10	4.03	0.59	3.63	15.73	9.31	13.26	16.93	15.43	16.31
0.45	...	10.92	0.17	2.97	0.16	2.03	17.15	16.22	16.70	13.17	11.62	12.71
0.20	...	10.03	0.03	0.38	0.28	3.00	13.80	14.30	13.93	11.26	10.04	10.70
...	...	9.86	0.02	0.30	0.48	2.46	12.99	13.29	13.12	10.46	11.38	10.89
...	...	11.52	...	0.35	0.38	3.19	15.50	15.39	15.44	12.11	11.56	11.87
0.05	...	10.47	...	0.12	0.19	1.90	11.99	12.73	12.73	10.03	10.02	10.02
...	...	10.23	...	0.17	0.09	2.05	11.69	13.64	12.56	11.04	11.12	11.09
0.09	...	12.24	...	0.16	0.27	1.95	14.59	14.31	14.70	13.27	13.17	13.17
0.12	...	15.43	0.03	0.18	0.32	1.73	17.30	18.46	17.84	10.03	10.03	10.31
...	...	9.28	0.34	2.90	0.15	7.15	18.48	22.14	19.82	17.46	20.36	18.88
...	...	6.59	0.26	5.86	0.40	7.51	20.00	24.66	22.00	13.80	13.75	11.82
...	...	30.47	0.41	0.55	...	0.55	28.06	37.05	31.98	17.51	21.56	19.37
0.03	...	11.20	0.04	0.54	0.28	2.78	14.48	15.50	14.94	11.30	11.07	11.67

1 Serial number.	2 Districts.				3 Area in square miles.	4 Average population per square mile.	5 Number of deaths registered.		
							Male.	Female.	Total.
61	Kotri R. C. ...				1,496	22	199	159	358
62	Kohistan " ...				1,806	9	67	59	126
63	Schwan " ...				1,273	35	256	256	512
64	Johi " ...				755	68	245	213	458
65	Dadu " ...				297	194	259	219	478
66	Kakar " ...				448	108	381	317	698
67	Mehar " ...				364	...	323	242	565
68	Kotri T. C. ...				...	...	96	69	165
69	Sehwan ... .. " ...				...	...	18	15	33
70	Dadu ... .. " ...				...	...	41	39	80
71	Manjhand ... .. " ...				...	...	26	19	45
	Total, Dadu District ...				6,439	51	1,911	1,607	3,518
72	Sukkur R. C. ...				267	248	589	505	1,094
73	Shikarpur " ...				298	147	460	368	828
74	Rohri " ...				1,629	48	292	249	541
75	Garhi Yasin " ...				402	171	396	409	805
76	Ghotki " ...				341	137	304	204	508
77	Pano Akil " ...				393	120	263	193	456
78	Mirpur Mathelo " ...				1,604	30	308	240	548
79	Ubauro " ...				462	100	240	186	426
80	Sukkur T. C. ...				3	23,092	573	381	954
81	Shikarpur " ...				9	6,745	815	814	1,629
82	Rohri ... .. " ...				...	...	108	95	203
83	Garhi Yasin ... .. " ...				...	...	109	105	214
84	Ghotki ... .. " ...				...	...	92	87	179
	Total, Sukkur District ...				5,608	111	4,549	3,836	8,385
85	Jacobabad R. C. ...				254	157	209	190	399
86	Garhi Khairo " ...				273	135	260	184	444
87	Kandhkot " ...				542	119	179	142	321
88	Thul " ...				497	63	366	308	674
89	Kashmor " ...				543	76	140	82	222
90	Jacobabad T. C. ...				...	...	120	93	213
	Total, Upper Sind Frontier District ...				2,109	123	1,274	999	2,273
	Total of all Town Circles ...				94	265	8,936	7,593	16,529
	Total of all Rural Circles ...				46,569	69	20,682	16,149	36,831
	Grand Total of the Province ...				46,663	83	29,618	23,742	53,360

II—concl'd.

6										7		
Deaths per 1,000 of population from										Mean ratio of deaths per 1,000 during previous five years.		
Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.
							Male.	Female.	Total.			
0.42	...	7.45	0.16	1.06	0.21	2.18	11.77	11.20	11.51	13.18	12.61	12.90
0.13	...	3.22	0.23	1.55	0.18	1.95	7.18	7.34	7.25	6.96	7.08	7.37
...	...	7.59	0.05	1.88	0.15	3.31	11.67	14.75	13.03	13.86	14.81	14.25
...	...	6.92	0.11	0.12	0.04	1.04	10.50	7.57	8.90	12.94	8.36	10.44
0.19	...	7.37	0.02	0.19	0.13	1.04	8.42	10.22	9.37	8.32	8.78	8.51
...	...	10.23	0.09	0.51	0.44	2.52	14.27	14.57	14.42	10.90	10.02	10.51
...	...	6.61	0.06	0.20	0.08	1.07	8.12	7.87	8.02	8.25	9.01	8.58
2.08	...	8.27	0.31	2.50	...	3.29	15.47	18.02	16.45	10.00	10.70	10.27
...	...	1.72	...	1.72	0.17	2.08	5.12	6.59	5.69	7.11	8.78	7.77
...	...	5.19	0.30	1.83	0.15	2.58	11.89	13.08	12.19	9.66	7.66	8.53
...	...	7.28	...	2.92	0.37	5.82	18.65	14.05	16.39	19.37	14.87	17.04
0.14	...	7.26	0.09	0.73	0.16	1.83	10.22	10.92	10.52	9.99	9.96	9.98
0.05	...	11.77	0.03	0.66	0.30	3.68	16.07	17.01	16.49	16.94	17.62	17.24
0.16	...	9.17	0.08	0.18	0.22	1.47	11.38	11.15	11.28	12.39	12.88	12.63
0.02	...	4.84	0.06	0.59	0.18	1.26	6.66	7.32	6.95	7.12	6.44	6.82
...	...	9.46	0.03	0.47	0.28	2.89	11.81	14.72	13.13	16.14	16.67	16.38
0.05	...	9.47	0.12	0.17	0.40	1.88	13.09	10.86	12.09	13.26	13.20	13.23
...	...	7.54	0.06	0.27	0.23	1.54	10.01	9.11	9.64	13.45	12.51	13.03
...	...	7.31	0.05	0.68	0.39	2.85	11.52	11.00	11.28	14.17	13.39	13.82
0.13	...	6.67	0.05	0.35	0.33	1.70	9.49	8.92	9.23	14.51	14.52	14.52
...	...	1.70	2.08	4.94	0.22	4.83	13.24	14.65	13.77	12.59	15.08	13.53
...	...	15.74	0.38	2.80	0.24	6.90	24.15	28.30	26.06	22.31	24.23	23.19
..	...	6.44	0.95	1.89	0.30	3.43	10.63	14.69	12.01	10.63	12.61	11.42
0.27	...	17.24	0.14	2.30	0.41	8.63	28.98	29.09	29.04	23.13	21.89	22.52
...	...	26.52	2.07	4.56	...	3.94	35.67	38.72	37.09	31.79	40.94	36.05
0.04	...	8.49	0.36	1.26	0.27	3.02	13.02	13.97	13.44	13.10	13.57	13.29
...	...	8.22	0.03	0.28	0.15	1.33	9.38	10.80	10.01	7.95	6.71	7.40
0.05	...	9.87	...	0.35	0.19	1.39	12.61	10.91	11.85	8.77	9.61	9.15
...	...	4.10	...	0.06	0.01	0.82	4.94	5.02	4.99	6.71	5.58	6.09
...	...	9.45	...	0.19	0.13	1.22	10.75	11.29	10.99	9.05	9.09	9.07
0.02	...	4.30	0.02	0.12	0.10	0.80	6.09	4.44	5.36	7.79	6.67	7.29
...	...	11.11	0.06	0.51	0.06	1.78	12.66	14.80	13.52	7.65	8.58	7.10
0.01	...	7.28	0.014	0.20	0.10	1.13	8.75	8.73	8.73	7.93	7.53	7.53
0.64	...	5.37	1.35	7.78	0.30	8.59	22.61	26.27	24.12	19.98	22.43	21.01
0.18	...	8.02	0.06	1.25	0.18	1.80	11.64	11.42	11.54	10.59	9.90	10.28
0.26	...	7.55	0.29	2.40	0.20	3.01	13.63	13.94	13.77	12.24	12.02	12.15

Annual deaths registered in the districts (rural circles) and in

Districts and Towns.					January.	February.	March.	April.	May.
A.—DISTRICTS (EXCLUDING TOWNS).									
Karachi	...	...	...	...	110	296	286	293	
Hyderabad	...	...	...	...	565	556	471	410	
Nawabshah	...	...	...	...	586	492	512	574	
Thar Parkar	.	...	...	...	1,020	902	773	744	
Larkana	...	...	...	...	464	373	326	368	
Dadu ...	...	...	...	...	332	318	198	243	
Sukkur	...	...	...	...	469	456	384	375	
Upper Sind Frontier	...	...	...	...	173	130	139	92	
Total for Districts ...					4,019	3,523	3,089	3,699	2,...
Ratio per mile of population ...					1.26	1.10	0.97	0.98	C
B.—TOWNS.									
<i>Karachi District.</i>									
Karachi	...	...	...	T. C. ...	640	577	670	642	
Karachi	...	...	...	C. C. ...	9	9	12	11	
Drigh Road	...	...	...	„ ...	...	...	1	...	
Tatta ...	...	...	...	T. C. ...	8	6	9	5	
<i>Hyderabad District.</i>									
Hyderabad	...	...	...	T. C. ...	348	290	310	346	
Hyderabad	...	...	...	C. C. ...	2	...	2	1	
Hala ...	...	...	...	T. C. ...	8	13	5	12	
Matiari	...	...	...	„ ...	3	1	7	2	
Tando Muhammadkhan	...	...	...	„ ...	26	10	13	10	
Nasarpur	...	...	...	„ ...	6	1	9	11	
Tando Allahyar	...	...	...	„ ...	15	5	5	3	
<i>Nawabshah District.</i>									
Nawabshah	...	...	...	T. C. ...	42	19	29	29	
Tando Adam	...	...	...	„ ...	43	54	34	19	
Shahdadpur	...	...	...	„ ...	2	4	2	2	
<i>Thar Parkar District.</i>									
Mirpurkhas	...	...	...	T. C. ...	9	2	14	22	
Umarkot	...	...	...	„ ...	11	14	5	5	
<i>Larkana District.</i>									
Larkana	...	...	...	T. C. ...	49	46	33	35	
Kambar	...	...	...	„ ...	16	11	12	18	
Ratodero	...	...	...	„ ..	23	14	11	9	

D. III

Deaths of the Province of Sind during each month of the year 1940.

June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.
161	157	147	197	151	230	331	2,873
353	331	369	255	267	354	382	4,735
377	312	379	340	305	422	586	5,365
529	431	429	404	614	509	603	7,620
224	415	307	398	540	1,063	898	5,777
127	243	222	286	321	338	335	3,195
327	290	358	346	531	733	615	5,206
128	100	99	159	261	387	262	2,060
2,226	2,285	2,310	2,375	2,990	4,036	4,015	36,831
0·70	0·72	0·73	0·75	0·94	1·27	1·22	11·54
581	562	591	570	436	511	514	6,923
6	5	10	11	11	16	13	124
...	1	...	...	...	2	...	6
9	4	1	4	8	6	14	80
214	226	221	216	200	185	265	3,175
2	1	1	...	1	2	1	14
4	5	9	5	8	14	20	112
3	6	4	10	4	9	6	58
10	7	9	8	12	12	20	148
6	1	2	2	4	7	23	75
5	3	7	10	...	3	5	76
28	25	28	22	18	21	27	317
16	27	30	33	31	50	84	449
4	2	6	8	7	11	12	78
7	7	12	10	14	16	13	135
1	6	2	1	3	5	4	65
41	34	17	30	60	68	81	532
13	20	8	6	16	41	41	214
18	19	5	11	24	29	59	233

District and Towns.					January.	February.	March.	April.	May.
B.—TOWNS.—<i>contd.</i>									
<i>Dadu District.</i>									
Kotri ..	...	...	...	T. C. ...	13	20	25	17	
Dadu...	...	...	...	,, ...	3	2	6	3	
Sehwan	...	...	...	,, ...	3	6	2	2	
Manjhand	...	...	...	,, ...	3	4	4	3	
<i>Sukkur District.</i>									
Sukkur	...	...	...	T. C. ...	79	79	72	71	
Shikarpur	...	...	...	,, ...	174	133	116	157	11
Rohri ..	...	...	...	,, ...	16	21	16	12	
Garhi Yasin	...	...	...	,, ...	13	16	11	10	
Ghotki	...	...	...	,, ...	27	10	18	11	
<i>Upper Sind Frontier District.</i>									
Jacobabad	...	...	...	T. C. ...	15	10	6	8	
Total for towns ...					1,606	1,377	1,459	1,476	1,551
Ratio per mile of population ...					2·34	2·01	2·13	2·15	2·1
Total for the province ...					5,625	4,900	4,548	4,575	4,411
Ratio per mile of population ...					1·47	1·26	1·17	1·18	1·1

—contd.

D. III—concl'd.

June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.
14	6	12	6	7	10	7	165
10	16	7	2	9	9	10	80
3	2	3	3	1	1	4	33
3	7	3	3	4	2	4	45
79	75	66	80	75	81	103	954
157	105	97	101	121	140	164	1,629
23	13	8	18	12	17	18	203
19	11	12	19	20	30	39	214
9	16	8	11	16	18	22	179
19	8	8	13	15	40	64	213
1,304	1,320	1,187	1,213	1,137	1,356	1,637	16,529
1·92	1·78	1·73	1·77	1·66	1·98	2·38	24·12
3,530	3,505	3,497	3,588	4,127	5,392	5,652	53,360
0·91	0·90	0·90	0·93	1·06	1·39	1·46	13·77

Deaths registered according to age in the districts (rural circles)

Districts and Towns.	Under one year.							Total.
	Not exceeding one month.							
	Male.			Female.				
	Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.		
A—DISTRICTS (EXCLUDING TOWNS).								
Karachi	44	38	82	36	31	67		
Hyderabad	58	64	122	45	55	100		
Nawabshah	85	68	153	64	53	117		
Thar Parkar	83	68	151	64	67	131		
Larkana... ..	114	83	197	72	74	146		
Dadu	74	39	113	41	36	77		
Sukkur	76	115	191	57	92	149		
Upper Sind Frontier	14	20	34	14	18	32		
Total Districts (excluding Towns) ...	548	495	1,043	393	426	819	11	
B.—TOWNS.								
Karachi District.								
Karachi T. C. ...	201	134	335	160	125	285		
Karachi C. C. ...	4	2	6	3	1	4		
Drigh Road „ ...	1	...	1	...	...	...
Tatta T. C. ...	...	...	...	3	1	4	
Hyderabad District.								
Hyderabad T. C. ...	94	76	170	90	55	145		
Hyderabad C. C. ...	1	...	1	...	...	...
Hala T. C. ...	4	3	7	4	3	7		
Matlari „ ...	1	3	4	1	1	2		
Tando Muhammadkhan „ ...	6	1	7	2	1	3		
Nasarpur „ ...	4	1	5	2	...	2		
Tando Allahyar ... .. „ ...	...	...	...	1	...	1	
Nawabshah District.								
Nawabshah T. C. ...	9	3	12	7	7	14		
Tando Adam „ ...	19	12	31	10	11	21		
Shahdadpur ... .. „ ...	...	1	1	...	1	1	
Thar Parkar District.								
Mirpurkhas T. C. ...	3	...	3	2	1	3		
Umarkot ... .. „ ...	...	1	1	...	...	...
Larkana District.								
Larkana T. C. ...	9	14	23	9	11	20		
Kambar „ ...	5	3	8	5	6	11		
Ratodero ... .. „ ...	...	11	11	...	5	5	

-contd.

IV.

towns of the Province of Sind during the year 1940.

Under one year—contd.

Under one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total.			One and under five years.	
	Female.	Total.	Male.	Female.	Total.	Male.	Female	Total.	Male.	Female
3	65	158	25	36	61	200	168	368	190	170
7	95	222	65	56	121	314	251	565	371	295
9	93	222	96	73	169	378	283	661	446	350
8	148	316	126	101	227	445	380	825	595	485
5	145	360	118	117	235	530	408	938	573	581
2	64	146	48	37	85	243	178	421	206	201
9	173	372	89	111	200	479	433	912	378	324
4	70	144	44	45	89	152	147	299	243	208
7	853	1,940	611	576	1,187	2,741	2,248	4,989	2,002	2,614
8	367	785	343	337	680	1,096	989	2,085	657	559
6	4	10	6	6	12	18	14	32	8	7
	1	1	2	...	2	3	1	4	...	1
	3	3	...	2	2	...	9	9	4	6
32	127	259	220	192	412	522	464	986	282	302
	...	...	...	...	...	1	...	1	1	1
12	8	20	5	3	8	24	18	42	7	5
2	...	2	...	...	...	6	2	8	1	4
9	6	15	5	4	9	21	13	34	11	12
3	...	3	1	...	1	9	2	11	3	2
1	1	2	...	...	...	1	2	3	3	4
9	9	18	5	6	11	26	29	55	32	29
12	14	26	10	8	18	53	43	96	45	29
1	4	5	1	1	2	3	6	9	4	6
3	2	5	1	2	3	7	7	14	5	7
3	2	5	...	2	2	4	4	8	3	...
12	16	28	24	9	33	59	45	104	36	36
9	5	14	7	3	10	24	19	43	12	10
8	7	15	8	11	19	27	23	50	25	31

Districts and Towns.	Under one year.					
	Not exceeding one month.					
	Male.			Female.		
	Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.
B—TOWNS—contd.						
<i>Dadu District.</i>						
Kotri T. C. ...	3	1	4	1	2	3
Dadu " "	1	2	3	2	...	2
Sehwan " "	1	...	1	1	...	1
Manjhand ... .. " "	...	...	...	1	1	2
<i>Sukkur District.</i>						
Sukkur T. C. ...	18	23	41	15	42	29
Shikarpur " "	42	29	71	43	28	71
Rohri " "	5	4	9	2	2	4
Garhi Yasin " "	11	2	13	2	3	5
Ghotki " "	6	12	18	9	10	19
<i>Upper Sind Frontier District.</i>						
Jacobabad T. C. ...	4	2	6	1	2	3
Total for towns ...	452	340	792	376	291	667
Total for the province ...	1,000	835	1,835	769	717	1,486
Ratio per mile of population ...	...	...	...	...	...	...

contd.

IV—contd.

Under one year— <i>contd.</i>								One and under five years.	
Under one month and not exceeding six months.		Over six months and not exceeding twelve months.			Total.				
Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
5	11	8	10	18	18	18	36	16	13
1	2	2	1	3	6	4	10	4	2
...	3	1	1	2	5	2	7	4	1
3	7	1	1	2	5	6	11	4	2
30	77	49	49	98	137	108	245	68	45
80	161	60	45	105	212	196	408	111	133
6	15	2	7	9	17	20	37	10	10
7	16	5	8	13	27	20	47	10	8
14	21	3	6	9	28	39	67	17	11
10	18	6	3	9	20	16	36	25	18
732	1,547	775	717	1,492	2,382	2,116	4,498	1,408	1,299
1,585	3,487	1,386	1,293	2,679	5,123	4,364	9,487	4,410	3,913
...	...	...	...	...	112.27	120.01	115.70	17.74	16.46

Districts and Towns.				Five and under ten years.		Ten and under 15 years.		15 and under 20 years.	
				Male.	Female.	Male.	Female.	Male.	Female.
A—DISTRICTS (EXCLUDING TOWNS)— <i>contd.</i>									
Karachi	...	...	...	90	88	91	54	96	
Hyderabad	...	...	...	225	167	176	120	115	
Nawabshah	...	...	...	238	173	176	129	199	
Thar Parkar	...	...	...	340	294	233	182	213	
Larkana	...	...	...	191	211	135	104	143	
Dadu	...	...	...	121	91	97	70	107	
Sukkur	...	...	...	180	152	134	115	154	
Upper Sind Frontier	...	...	...	98	80	56	49	52	
Total				1,483	1,256	1,098	823	1,109	
B—TOWNS— <i>contd.</i>									
<i>Karachi District.</i>									
Karachi	...	...	T. C. ...	131	135	76	78	94	
Karachi	...	...	C. C. ...	1	1	1	...	3	
Drigh Road	...	...	„ ...	...	...	...	...	...	...
Tatta	...	...	T. C. ...	3	1	...	1	3	...
<i>Hyderabad District.</i>									
Hyderabad	...	...	T. C. ...	88	58	29	24	50	
Hyderabad	...	...	C. C. ...	...	...	1	...	1	...
Hala	...	...	T. C. ...	3	3	2	3	2	...
Matlari	...	...	„ ...	1	...	1	1	...	
Tando Muhammadkhan	...	...	„ ...	6	5	4	3	5	
Nasarpur	...	...	„ ...	3	1	3	1	1	
Tando Allahyar	...	...	„ ...	...	4	3	2	1	
<i>Nawabshah District.</i>									
Nawabshah	...	...	T. C. ...	23	11	8	12	13	
Tando Adam	...	...	„ ...	23	24	17	17	22	
Shahdadpur	...	...	„ ...	1	3	5	4	...	
<i>Thar Parkar District.</i>									
Mirpurkhas	...	...	T. C. ...	7	3	8	1	3	
Umarkot	...	...	„ ...	2	1	1	1	4	
<i>Larkana District.</i>									
Larkana	...	...	T. C. ...	14	16	3	13	14	
Kambar...	...	...	„ ...	3	7	6	4	6	
Ratodero	...	...	„ ...	11	6	3	2	5	

—contd.

D. IV—contd.

Under 10 years.		30 and under 40 years.		40 and under 50 years.		50 and under 60 years.		60 years and upwards.		Ages not known.		Total (all ages.)	
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
3	177	204	176	173	125	144	74	222	139	...	...	1,623	1,250
6	270	331	261	285	176	250	113	390	188	...	...	2,773	1,962
10	311	318	271	268	196	288	145	455	265	...	...	3,076	2,289
15	354	479	362	366	249	466	222	836	499	...	...	4,358	3,262
20	283	297	268	228	155	278	153	519	365	...	...	3,116	2,661
25	204	187	189	180	151	152	85	276	190	...	...	1,730	1,465
30	272	243	282	280	203	252	150	468	308	...	...	2,852	2,354
35	93	95	94	86	53	106	48	175	95	...	...	1,154	906
40	1,964	2,154	1,903	1,866	1,308	1,936	990	3,341	2,049	...	...	20,682	16,149
45	331	266	249	353	159	243	108	530	476	...	...	3,698	3,225
50	6	10	4	6	3	4	6	19	6	...	...	76	48
55	...	...	...	...	...	...	...	1	...	...	...	4	2
60	2	5	5	3	1	4	3	14	10	...	...	42	38
65	134	142	80	151	58	148	55	202	177	...	...	1,753	1,422
70	2	...	...	1	1	1	...	4	...	...	...	10	4
75	3	2	3	1	2	1	3	8	7	...	...	54	58
80	1	2	5	2	2	4	1	8	11	...	...	29	29
85	8	8	6	6	4	4	4	9	9	...	...	80	68
90	4	6	3	2	2	4	3	13	6	...	...	47	28
95	6	3	2	6	6	8	3	10	7	...	...	39	37
100	14	13	8	14	9	13	3	19	13	...	...	177	140
105	17	16	8	13	8	20	14	28	24	...	...	253	196
110	7	4	5	4	1	3	4	6	5	...	...	31	47
115	5	25	3	15	1	8	1	7	4	...	...	100	35
120	2	7	4	5	3	5	4	3	6	...	...	36	29
125	40	24	20	37	14	28	9	46	35	...	...	287	245
130	11	11	6	8	7	17	8	11	23	...	...	110	104
135	13	2	11	7	6	11	10	16	14	...	...	112	121

Districts and Towns.	Five and under ten years.		Ten and under 15 years.		15 and under 20 years.	
	Male.	Female.	Male.	Female.	Male.	Female.
B.—TOWNS—concl'd.						
<i>Dadu District.</i>						
Kotri T. C. ...	10	7	4	3	5	4
Dadu „ ...	4	1	3	4	...	11
Sehwan „ ...	1	...	...	...	1	11
Manjhand „ ...	3	1	1	...	2	...
<i>Sukkur District.</i>						
Sukkur T. C. ...	19	15	13	12	14	122
Shikarpur „ ...	41	38	21	28	30	42
Rohri „ ...	5	5	3	5	2	4
Garhi Yasin „ ...	11	6	6	7	6	6
Ghotki „ ...	2	1	4	1	4	7
<i>Upper Sind Frontier District.</i>						
Jacobabad T. C. ...	4	3	4	1	1	7
Total for towns ...	420	356	230	228	292	383
Total for the province ...	1,903	1,612	1,328	1,051	1,401	1,377
Ratio per mile of population ...	6.65	7.23	5.38	6.85	7.42	9.33

II—*contd.*No. IV—*concl'd.*

20 and under 30 years.		30 and under 40 years.		40 and under 50 years.		50 and under 60 years.		60 years and upwards.		Ages not known.		Total (all ages).	
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
9	5	4	6	7	2	7	3	16	8	...	...	96	69
3	4	5	2	6	6	5	5	5	10	...	...	41	39
1	4	1	2	3	1	2	1	1	3	...	...	18	15
1	1	2	...	1	3	...	2	7	4	...	...	26	19
44	52	62	40	74	24	50	16	92	57	...	...	573	381
43	96	50	53	74	35	68	17	165	171	...	...	815	814
6	7	8	8	15	5	16	8	23	26	...	...	108	95
10	9	9	16	9	8	9	9	12	16	...	...	109	105
5	10	4	5	5	3	7	3	16	7	...	...	92	87
6	8	8	4	13	4	18	3	21	29	...	...	120	93
645	805	699	558	840	378	708	306	1,312	1,164	...	...	8,036	7,593
2,597	2,769	2,853	2,461	2,706	1,686	2,644	1,296	4,653	3,213	...	...	29,618	23,742
6·07	8·03	8·20	9·97	12·92	11·47	25·29	16·49	68·69	56·97	...	...	13·63	13·94

APPENDIX

ANNUAL FORM

Deaths registered according to classes and sex in

1	2							
No.	Districts.				NUMBER OF			
					Muhammadans.		Hindus.	
					Male.	Female.	Male.	Female.
1	Karachi	...	...	...	3,284	2,577	2,035	1,878
2	Hyderabad	...	...	...	2,708	1,896	2,071	1,710
3	Nawabshah	...	...	...	2,436	1,738	1,101	933
4	Thar Parkar	...	...	...	2,645	1,883	1,849	1,443
5	Larkana	...	...	...	2,826	2,352	799	779
6	Dadu	...	...	...	1,524	1,249	387	358
7	Sukkur	...	...	...	2,609	2,056	1,934	1,780
8	Upper Sind Frontier	...	...	...	1 084	844	190	155
	Total for the Province ...				19,116	14,595	10,366	9,036

1	2							
No.	Districts.				RATIO OF DEATHS			
					Muhammadans.		Hindus.	
					Male.	Female.	Male.	Female.
1	Karachi	...	...	...	14'08	14'73	22'83	30'84
2	Hyderabad	...	...	...	10'42	9'44	18'96	19'26
3	Nawabshah	...	...	...	11'39	10'60	10'74	17'77
4	Thar Parkar	...	...	...	19'12	17'49	15'18	14'85
5	Larkana	...	...	...	13'81	14'26	17'68	21'17
6	Dadu	...	...	...	9'62	10'07	13'67	15'56
7	Sukkur	...	...	...	10'49	10'73	19'93	22'13
8	Upper Sind Frontier	...	...	...	8'30	8'10	12'68	14'60
	Total for the Province ...				12'05	11'77	18'21	20'07

III—*contd.*

No. V.

the Province of Sind during the year 1940.

3

DEATHS REGISTERED

Jains.		Christians.		Parsis.		Other Classes.		Total.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
..	...	96	74	10	28	18	6	5,443	4,563	10,006
...	...	6	2	...	...	...	...	4,785	3,608	8,393
...	1	...	...	...	...	3,537	2,672	6,209
...	4,494	3,326	7,820
...	3,625	3,131	6,756
...	1,911	1,607	3,518
...	..	4	...	...	...	2	...	4,549	3,836	8,385
...	1,274	999	2,273
...	...	106	77	10	28	20	6	29,618	23,742	53,360

4

PER 1,000 OF POPULATION.

Jains.		Christians.		Parsis.		Other Classes.		Total.		
Male	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
...	...	16·72	17·26	5·7	17·53	25·21	9·87	16·56	18·20	17·27
...	...	19·43	8·55	...	...	...	...	12·85	12·41	12·68
...	18·18	...	...	...	...	12·64	12·28	12·50
...	17·15	16·22	16·70
...	14·48	15·50	14·94
...	10·22	10·92	10·52
...	...	8·33	...	...	...	0·68	...	13·02	13·97	13·44
...	8·75	8·73	8·73
...	...	15·32	15·05	5·35	16·77	2·17	·94	13·63	13·94	13·77

APPENDIX

ANNUAL FORM

Deaths registered from different causes and Births in the Districts

1	2				3	4				
No.	Districts and Towns.				Population according to census of 1931.	Births,				
						Male.	Female.	Total.	Birth rate.	
A.—DISTRICTS.										
1	Karachi	...	...	...	3,13,766	2,088	1,471	3,559	11·34
2	Hyderabad	...	...	...	5,31,203	2,897	2,006	4,903	9·23
3	Nawabshah	...	...	...	4,67,273	5,099	3,774	8,873	18·99
4	Thar Parkar	...	...	...	4,54,021	4,452	3,709	8,161	17·98
5	Larkana	...	...	...	4,08,298	4,944	3,711	8,655	21·20
6	Dadu	...	...	...	3,09,146	3,608	2,698	6,306	20·40
7	Sukkur	...	...	...	4,62,901	5,399	4,192	9,591	21·44
8	Upper Sind Frontier	...	...	...	2,44,578	1,814	1,246	3,060	12·50
Total of the Districts (excluding towns)					31,91,186	30,301	22,807	53,108	16·64	
B.—TOWNS.										
KARACHI DISTRICT.										
9	Karachi	...	...	T. C.	...	7,928	7,318	15,246	61·52
10	Karachi	...	...	C. C.	...	231	191	422	67·63
11	Drigh Road	...	...	C. C.	...	13	2	15	7·50
12	Tatta	...	...	T. C.	...	77	72	149	15·46
HYDERABAD DISTRICT.										
13	Hyderabad	...	...	T. C.	..	2,085	1,721	3,806	35·64
14	Hyderabad	...	...	C. C.	...	28	13	41	9·05
15	Hala	...	...	T. C.	...	116	113	229	31·35

III—*contd.*

No. VI.

and Towns of the Province of Sind during the year 1940.

5	6	7	8	9	10	11 INJURIES.	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases,	Suicide,	
						Male.	Female.
...	79	...	1,308	38	885	...	...
1	120	...	2,990	26	848	...	...
71	98	...	3,871	10	396	1	...
1	198	...	5,052	76	1,325	3	...
3	26	...	4,535	4	101	1	...
90	25	...	2,280	24	189	...	...
...	24	...	3,828	27	201	2	2
...	3	...	1,718	2	45	..	2
166	573	...	25,582	207	3,990	7	4
29	21	...	316	597	2,957	2	1
...	...	...	37	5	9	...	...
...	...	...	3	...	1	...	...
...	2	...	28	1	28	...	...
1	304	...	296	92	1,230	2	1
...	...	...	5	...	...	...	...
...	...	...	58	...	16	...	...

1	2				11				12	13	
No.	Districts and Towns.				INJURIES.— <i>contd.</i>				All other causes	Total deaths from all causes.	
					Wound- ing or Accident.	Snake- bite, or killed by wild beasts.	Rabies.	Total.			
A.—DISTRICTS.											
1	Karachi	...	...	...	31	24	1	56	507	2,873
2	Hyderabad	...	...	...	25	14	2	41	709	4,735
3	Nawabshah	...	...	...	37	33	...	71	848	5,365
4	Thar Parkar	...	...	...	38	24	1	66	902	7,620
5	Larkana	...	...	...	79	37	2	119	989	5,777
6	Dadu	...	...	...	33	18	...	51	536	3,195
7	Sukkur	...	...	...	95	29	1	129	997	5,206
8	Upper Sind Frontier	...	...	...	19	5	...	26	266	2,060
Total of the Districts (excluding town) ...					357	184	7	559	5,754	36,831	
B.—TOWNS.											
KARACHI DISTRICT.											
9	Karachi	T. C.	...	76	1	2	82	2,921	6,923
10	Karachi	C. C.	73	124
11	Drigh Road	C. C.	2	6
12	Tatta	T. C.	...	1	1	20	80
HYDERABAD DISTRICT.											
13	Hyderabad	T. C.	...	40	...	5	48	1,204	3,175
14	Hyderabad	C. C.	9	14
15	Hala	T. C.	...	1	1	37	112

14

RATIO OF DEATHS PER 1,000 POPULATION.

Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries	All other causes.	From all Causes.	
								For the year.	Mean of previous five years.
...	0·25	...	4·17	0·12	2·82	0·18	1·62	9·16	9·50
0·002	0·23	...	5·63	0·05	1·60	0·08	1·33	8·92	7·12
0·15	0·21	...	8·28	0·02	0·85	0·15	1·82	11·48	9·15
0·002	0·43	...	11·13	0·17	2·94	0·14	1·97	16·78	11·55
0·007	0·06	...	11·10	0·01	0·25	0·29	2·42	14·14	9·98
0·29	0·08	...	7·37	0·08	0·61	0·17	1·73	10·33	9·25
...	0·05	...	8·29	0·06	0·43	0·28	2·14	11·25	11·50
...	0·01	...	7·02	0·08	0·19	0·11	1·08	8·42	7·25
·05	·18	...	8·02	·06	1·25	·18	1·80	11·54	10·28
0·12	0·08	...	1·28	2·41	11·93	0·33	11·79	27·94	25·68
...	...	...	5·93	0·80	1·44	...	11·70	19·87	17·62
...	...	...	1·50	...	0·50	...	1·00	3·00	...
...	0·20	...	2·91	0·10	2·91	0·10	2·08	8·30	11·41
0·01	3·17	...	3·08	0·95	12·81	0·50	12·54	33·06	27·96
...	...	...	1·10	...	...	...	1·99	3·09	...
...	...	...	7·94	...	2·19	0·14	5·07	15·34	9·58

ANNUAL FORM

1	2	3	4			
No.	Districts and Towns.	Population according to census of 1931.	Births.			
			Male.	Female.	Total.	Birth rate.
B,—TOWNS.— <i>contd.</i>						
HYDERABAD DISTRICT.— <i>contd.</i>						
16	Matiari T. C. ...	...	75	28	103	15·37
17	Tando Muhammadkhan ... T. C. ...	...	38	35	73	11·03
18	Nasarpur T. C. .	...	19	15	34	7·98
19	Tando Allahyar... .. T. C.	...	32	13	45	8·73
NAWABSHAH DISTRICT.						
20	Nawabshah T. C. ...	...	96	77	173	24·63
21	Tando Adam T. C. ..	...	318	273	591	43·88
22	Shahdadpur T. C. ...	...	74	48	122	13·80
THAR PARKAR DISTRICT.						
23	Mirpurkhas T. C. ...	...	83	47	130	12·77
24	Umarkot T. C. ...	...	23	21	44	11·46
LARKANA DISTRICT.						
25	Larkana T. C. ...	...	496	438	934	34·80
26	Kambar T. C. ...	...	148	140	288	29·65
27	Ratodero T. C. ...	...	119	115	234	32·12
DADU DISTRICT.						
28	Dadu T. C. ...	...	75	34	109	16·61
29	Kotri T. C. ...	...	83	66	149	14·85
30	Sehwan T. C. ...	...	54	35	89	15·36
31	Manjhand T. C. ...	...	45	38	83	30·23

No. VI.—*contd.*

5	6	7	8	9	10	11 INJURIES.	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory Diseases.	Suicide.	
						Male	Female.
...	...	...	19	2	17	...	...
...	4	...	72	1	31	...	...
...	...	...	24	...	29	...	...
...	4	...	28	1	23	...	...
3	13	...	200	...	42	1	...
...	48	...	164	8	82	...	..
...	2	...	43	1	9	...	...
...	12	...	38	1	41	...	...
...	2	...	25	...	25	...	..
...	...	...	249	9	78	...	1
14	...	...	63	2	57	...	...
...	...	...	222	3	4	...	...
14	...	...	34	2	12	...	...
...	21	...	83	3	25	...	...
...	...	...	10	...	10	...	...
..	...	...	20	...	8	...	..

ANNUAL FORM

No.	2				12				13	14
	District and Towns.				INJURIES.— <i>contd.</i>				All other causes.	Total deaths from all causes.
					Wound- ing or Accident.	Snake bite, or killed by wild beasts.	Rabies.	Total.		
	B.—TOWNS.— <i>contd.</i>									
	HYDERABAD DISTRICT.— <i>concl'd.</i>									
16	Matiari	...	T. C.	...	2	1	...	3	17	58
17	Tando Muhammadkhan	...	T. C.	...	2	1	...	3	37	148
18	Nasarpur	...	T. C.	...	1	1	1	3	19	75
19	Tando Allahyar	...	T. C.	...	1	...	...	1	19	76
	NAWABSHAH DISTRICT.									
20	Nawabshah	...	T. C.	...	2	...	...	3	56	317
21	Tando Adam	...	T. C.	...	6	1	...	7	140	449
22	Shahdadpur	...	T. C.	...	1	...	...	1	22	78
	THAR PARKAR DISTRICT.									
23	Mirpurkhas	...	T. C.	...	5	1	...	6	37	135
24	Umarkot	...	T. C.	...	...	...	...	...	13	65
	LARKANA DISTRICT.									
25	Larkana	...	T. C.	...	3	...	...	4	192	532
26	Kambar	...	T. C.	...	4	...	...	4	74	214
27	Ratodero	...	T. C.	...	...	...	...	...	4	233
	DADU DISTRICT.									
28	Dadu	...	T. C.	...	1	...	...	1	17	80
29	Kotri	...	T. C.	...	...	...	...	...	33	165
30	Sehwan	...	T. C.	...	1	...	...	1	12	33
31	Manjhand	...	T. C.	...	1	...	...	1	16	45

15

RATIO OF DEATHS PER 1,000 OF POPULATION.

Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries	All other causes.	From all Causes.	
								For the year.	Mean of previous five years.
...	..	...	2·83	0·30	2·55	0·45	2·54	8·67	15·43
...	0·60	...	10·87	0·15	4·68	0·45	5·58	22·33	14·48
...	...	...	5·64	...	6·84	0·70	4·48	17·66	18·33
...	0·78	...	5·44	0·19	4·45	0·19	3·69	14·74	14·96
0·43	1·85	...	28·48	...	5·98	0·43	7·97	45·14	15·09
...	3·57	...	12·18	0·59	6·07	0·52	10·40	33·33	14·25
...	0·23	...	4·86	0·11	1·02	0·11	2·48	8·81	7·79
...	1·18	...	3·73	0·10	4·03	0·59	3·63	13·26	16·31
...	0·52	...	6·51	...	6·51	...	3·38	16·92	19·27
...	...	...	9·28	0·34	2·90	0·15	7·15	19·82	18·88
1·44	...	...	6·59	0·20	5·86	0·40	7·51	22·00	14·82
...	...	...	30·47	0·41	0·55	...	0·55	31·98	19·37
2·14	...	...	5·19	0·30	1·83	0·15	2·58	12·19	8·53
...	2·08	...	8·	0·31	2·50	...	3·29	16·45	10·27
...	...	...	1·72	...	1·72	0·17	2·08	5·69	7·77
...	...	...	7·28	...	2·92	0·37	5·82	16·39	17·04

ANNUAL FORM

1 No.	2 Districts and Towns.					3 Population according to census of 1931.	4 Births.			
							Male.	Female.	Total.	Birth- rate.
	B.—TOWNS.— <i>contd.</i>									
	SUKKUR DISTRICT.									
32	Sukkur	...	...	T. C.	...	...	1,462	1,216	2,678	38·65
33	Shikarpur	...	...	T. C.	...	...	1,041	1,011	2,052	32·82
34	Rohri	...	...	T. C.	...	...	188	168	356	21·67
35	Garhi Yasin	...	...	T. C.	...	...	136	107	243	32·97
36	Ghotki	...	...	T. C.	...	...	109	103	212	43·93
	UPPER SIND FRONTIER DISTRICT.									
37	Jacobabad	...	..	T. C.	...	...	136	98	234	14·86
	Total of Towns					...	15,328	13,556	28,884	42·16
	Total of Province					...	45,629	36,363	81,992	21·15

No. VI.—*contd.*

5	6	7	8	9	10	11 INJURIES.	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.	
						Male.	Female.
...	...	...	118	144	342	...	...
...	...	...	984	24	175	...	...
...	...	...	109	16	32	...	...
...	2	...	127	1	17	...	...
...	...	...	128	10	22	...	...
...	...	...	175	1	8	...	...
61	435	...	3,678	924	53,30	5	3
227	1,008	...	29,260	1,131	9,320	12	7

ANNUAL FORM

1	2				12				13	14		
No.	District and Towns.				INJURIES.— <i>concl'd.</i>				All other causes.	Total deaths from all causes.		
					Wound- ing or Accident.	Snake bite, or killed by wild beasts	Rabies	Total.				
B.—TOWNS.— <i>concl'd.</i>												
SUKKUR DISTRICT.												
32	Sukkkur	...	...	T. C.	...	15	...	...	15	335	954
33	Shikarpur	..	...	T. C.	...	14	1	...	15	431	1,629
34	Rohri	...	...	T. C.	...	5	...	...	5	41	203
35	Garhi Yasin	...	...	T. C.	...	3	...	...	3	64	214
36	Ghotki	...	.	T. C.	...	...	...	...	...	19	179
UPPER SIND FRONTIER DISTRICT.												
37	Jacobabad	...	...	T. C.	...	1	...	...	1	28	213
Total of Towns						...	186	7	8	209	5,892	16,529
Total of Province						...	543	191	15	768	11,646	53,360

No. VI.—*concl'd.*

15

RATIO OF DEATHS PER 1,000 OF POPULATION.

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.
...	...	...	1·70	2·08	4·94	0·22	4·83	13·77	13·53
...	...	...	15·74	0·38	2·80	0·24	6·90	26·06	23·19
...	...	...	6·44	0·95	1·89	0·30	2·43	12·01	11·42
...	0·27	...	17·24	0·14	2·30	0·41	8·68	29·04	22·52
...	...	...	26·52	2·07	4·56	...	3·94	37·09	36·05
...	...	...	11·11	0·06	0·51	0·06	1·78	13·52	7·10
·09	·64	...	5·37	1·35	7·78	·30	8·59	24·12	21·01
·06	·26	...	7·55	·29	2·40	·20	3·01	13·77	12·15

Deaths registered from certain diseases in the districts

1						3	4		5		6	
No.	Districts and Towns.					Population according to Census of 1931.	Enteric Fever.		Measles.		Cerebro-spinal Fever.	
							Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
A.—DISTRICTS.												
1	Karachi	...	...	...	...	3,13,766	1	0·003	2	0·006	...	...
2	Hyderabad	..	...	...	...	5,31,203	18	0·03	9	0·02	...	...
3	Nawabshah	...	...	...	...	4,67,273	62	0·13	21	0·05	1	0·0022
4	Thar Parkar	...	...	...	...	4,54,021	35	0·08	24	0·05	...	...
5	Larkana	...	...	...	...	4,08,298	17	0·04	...	...	...	...
6	Dadu	...	...	...	...	3,09,146	26	0·08	15	0·05	...	...
7	Sukkur	...	...	...	...	4,62,901	32	0·07	3	0·006	...	...
8	Upper Sind Frontier	...	...	...	...	2,44,578	7	0·02	...	...	...	...
Total of the Districts (excluding towns)						31,91,186	198	·06	74	·06	1	70·003
B.—TOWNS.												
KARACHI DISTRICT.												
9	Karachi	...	...	T. C.	...	2,47,791	61	0·25	115	0·46	...	...
10	Karachi	...	..	C. C.	...	6,240	...	...	...	...	...	...
11	Drigh Road	...	...	C. C.	...	2,000	...	...	...	...	...	...
12	Tatta	...	...	T. C.	...	9,635	1	0·10	...	...	...	...
HYDERABAD DISTRICT.												
13	Hyderabad	...	...	T. C.	...	96,021	58	0·60	99	1·03	2	0·003
14	Hyderabad	...	...	C. C.	...	4,530	...	...	...	...	...	...
15	Hala	...	...	T. C.	...	7,304	...	...	2	0·28	...	...

No. VI (a).

and towns of the Province of Sind during the year 1940.

[illegible]

ANNUAL FORM

1	2				15		16		17		18	
No.	Districts and Towns.				Cancer.		Pneu- monia.		Phthisis.		Other Respi- ratory Diseases.	
					Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
A.—DISTRICTS.												
1	Karachi	...	...	...	...	...	677	2·15	103	0·33	103	0·33
2	Hyderabad	...	...	...	...	...	622	1·17	113	0·22	109	0·20
3	Nawabshah	...	...	...	...	...	262	0·56	56	0·12	74	0·16
4	Thar Parkar	...	...	...	...	...	1,080	2·40	106	0·23	139	0·31
5	Larkana	...	...	...	...	...	27	0·06	26	0·06	41	0·10
6	Dadu	...	...	...	...	...	88	0·29	58	0·19	42	0·13
7	Sukkur	...	...	...	...	...	88	0·29	62	0·13	46	0·10
8	Upper Sind Frontier	...	...	...	...	...	25	0·10	11	0·05	9	0·04
Total of the Districts (excluding towns)					...	...	2,869	·90	535	·17	563	·17
B.—TOWNS.												
KARACHI DISTRICT.												
9	Karachi	...	...	T. C.	...	...	1,483	5·98	823	3·32	627	2·53
10	Karachi	...	...	C. C.	...	...	9	1·44	...	...	...	...
11	Drigh Road	...	...	C. C.	...	...	1	0·50	...	...	...	...
12	Tatta	...	...	T. C.	...	...	13	1·35	10	1·04	5	0·52
HYDERABAD DISTRICT.												
13	Hyderabad	...	...	T. C.	...	...	907	9·45	230	2·40	93	0·96
14	Hyderabad	...	...	C. C.	...	...	...	...	...	...	...	...
15	Hala	...	...	T. C.	...	...	11	1·49	3	0·42	2	0·28

No VI (a).—*contd.*

19 Dysentery.		20 Diarrhœa.		21 Deaths from child- birth.	22 Deaths under 1 year.			23 Infant mor- tality rate per 1,000 births.
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.	
17	0·05	21	0·07	39	200	168	368	103·40
16	0·03	10	0·02	79	314	251	565	115·22
4	0·009	6	0·013	73	378	283	661	74·42
3	0·008	73	0·16	80	445	380	825	101·09
2	0·005	2	0·005	69	530	408	938	108·38
9	0·03	15	0·05	82	243	178	421	66·77
1	0·02	26	0·06	103	479	433	912	95·09
...	...	2	0·008	13	152	147	299	97·70
52	·016	155	·05	538	2,741	2,248	4,989	93·94
119	0·48	478	1·93	66	1,096	989	2,085	136·75
5	0·80	...	...	...	18	14	32	75·83
...	...	...	...	...	3	1	4	266·66
1	0·10	...	...	5	...	9	9	60·40
37	0·38	35	0·57	67	522	464	986	259·07
...	...	...	...	...	1	...	1	24·41
...	...	...	...	6	24	18	42	183·41

ANNUAL FORM

1	2	3	4		5		6				
No.	District and Towns.	Population according to Census of 1931.	Enteric Fever,		Measles,		Cerebro-spinal Fever.				
			Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.			
B.—TOWNS.— <i>contd.</i>											
HYDERABAD DISTRICT.— <i>concl'd.</i>											
16	Matiari T. C. ...	6,692	5	0·74	...	...	...	...
17	Tando Muhammadkhan ... T. C. ...	6,626	5	0·76	...	...	...	...
18	Nasarpur T. C. ...	4,254	...	...	...	...	...	...
19	Tando Allahyar T. C. ...	5,146	...	...	...	...	...	...
NAWABSHAH DISTRICT.											
20	Nawabshah T. C. ...	7,023	8	1·14	...	...	...	...
21	Tando Adam T. C. ...	13,469	36	2·67	1	0·09	...	...	
22	Shahdadpur T. C. ...	8,847	4	0·45	...	...	...	...
THAR PARKAR DISTRICT.											
23	Mirpurkhas T. C. ...	10,178	1	0·10	...	...	1	0·10	
24	Umarkot T. C. ...	3,841	...	...	...	...	...	...
LARKANA DISTRICT.											
25	Larkana T. C. ...	26,841	20	1·075	..	...	...	...
26	Kambar T. C. ...	9,717	9	0·92	2	0·20	...	...	
27	Ratodero T. C. ...	7,285	...	...	...	...	...	...
DADU DISTRICT.											
28	Dadu T. C. ...	6,562	1	0·15	...	...	...	...
29	Kotri T. C. ...	10,033	2	0·20	...	...	...	...
30	Sehwan T. C. ...	5,795	1	0·17	...	...	...	...
31	Manjhand T. C. ...	2,746	1	0·37	...	...	...	...

No. VI (a).—*contd.*

7		8		9		10		11		12		13		14	
Malaria.		Other Fevers.		Influenza.		Beri Beri.		Diphtheria.		Chicken-pox.		Mumps.		Whooping Cough.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
...	...	14	2'09	...	...	...	...	...	...	...	...	...	...	...	...
...	...	67	10'11	...	...	...	...	...	...	...	...	...	...	...	...
13	3'03	11	2'61	...	...	...	...	...	...	9	2'12	...	...	...	...
...	...	28	5'44	...	...	...	...	...	...	...	...	...	...	...	...
...	...	192	27'34	...	...	...	...	...	...	5	0'71	...	...	...	...
...	...	127	9'43	...	...	...	...	...	...	...	...	...	...	...	...
...	...	39	4'41	...	...	...	...	...	...	...	...	...	...	...	...
2	0'19	34	3'34	...	...	...	...	...	...	1	0'10	...	...	...	...
...	...	25	6'51	...	...	...	...	...	...	...	...	...	...	...	...
220	8'19	9	0'33	...	...	...	...	...	...	...	...	...	...	...	...
26	2'47	26	2'47	...	...	...	...	2	0'20	...	...	...	...	...	...
...	...	222	30'47	...	...	...	...	...	...	...	...	...	...	...	...
1	0'15	32	4'89	...	...	...	...	...	...	1	0'15	...	...	...	...
30	7'97	1	0'10	...	...	...	...	...	...	5	0'50	...	...	1	0'10
...	...	9	1'55	...	...	...	...	...	...	...	...	...	...	...	...
...	...	19	6'01	...	...	...	...	3	1'09	...	...	...	...	...	...

ANNUAL FORM

1 No.	2 Districts and Towns.					15 Cancer.		16 Pneumonia.		17 Phthisis.		18 Other Respi- ratory. Diseases.	
						Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	TOWNS.— <i>contd.</i>												
	HYDERABAD DISTRICT.— <i>concl'd.</i>												
16	Matlari	...	...	T. C.	...	...	...	9	1·35	4	0·60	4	0·60
17	Tando Muhammadkhan	...	...	T. C.	...	...	...	22	3·32	7	1·06	2	0·30
18	Nasarpur	...	...	T. C.	...	...	...	5	1·18	4	0·66	20	4·70
19	Tando Allahyar	...	...	T. C.	...	...	...	11	2·13	12	2·32	...	...
	NAWABSHAH DISTRICT.												
20	Nawabshah	...	...	T. C.	...	...	...	30	4·27	9	1·28	3	0·43
21	Tando Adam	...	...	T. C.	...	...	...	41	3·05	33	2·42	8	0·60
22	Shahdadpur	...	...	T. C.	...	...	...	5	0·56	2	0·23	2	0·23
	THAR PARKAR DISTRICT.												
23	Mirpurkhas	...	...	T. C.	...	...	...	18	1·77	19	1·87	4	0·39
24	Umarkot	...	...	T. C.	...	...	...	21	5·46	3	0·79	1	0·26
	LARKANA DISTRICT.												
25	Larkana	...	...	T. C.	...	...	...	48	1·75	7	0·26	23	0·86
26	Kambar	...	...	T. C.	...	...	...	31	3·19	16	1·64	10	1·03
27	Ratodero	...	...	T. C.	...	...	...	1	0·14	1	0·14	2	0·28
	DADU DISTRICT.												
28	Dadu	...	...	T. C.	...	...	...	4	0·60	5	0·77	3	0·46
29	Kotri	...	...	T. C.	...	...	...	17	1·70	7	0·70	...	...
30	Sehwan	...	...	T. C.	...	...	...	5	0·84	2	0·36	3	0·52
31	Manjhand	...	...	T. C.	...	...	...	2	0·73	5	1·82	1	0·37

No. VI (a) —*contd.*

18		19		20	21			22
Dysentery.		Diarrhoea.		Deaths from child-birth	Deaths under 1 year.			Infant mor- tality rate. per 1000 births.
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.	
1	0·15	1	0·15	3	6	2	8	77·67
...	...	1	0·15	5	21	13	34	465·75
...	...	...	...	5	9	2	11	323·53
...	...	1	0·19	2	1	2	3	66·66
...	...	...	...	3	26	29	55	317·90
1	0·07	7	0·52	7	53	43	96	162·44
1	0·11	...	...	5	3	6	9	73·77
...	...	1	0·10	3	7	7	14	107·69
...	...	...	...	2	4	4	8	181·81
4	0·15	5	0·18	42	59	45	104	111·35
2	0·20	...	...	6	24	19	43	149·30
...	...	8	0·41	1	27	23	50	213·67
1	0·15	1	0·15	4	6	4	10	91·83
...	...	3	0·31	2	18	18	36	241·61
...	...	...	...	2	5	2	7	78·65
...	...	...	...	1	5	6	11	132·53

ANNUAL FORM

1	2				3	4		5		6		
No	Districts and Towns.				Population according to Census of 1931.	Enteric Fever.		Measles.		Cerebro-spinal Fever.		
						Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	
	B.—TOWNS,— <i>contd.</i>											
	SUKKUR DISTRICT.											
32	Sukkur	...	...	T. C.	...	69,277	24	0·35	...	..	6	0·09
33	Shikarpur	...	...	T. C.	...	62,505	27	0·45	54	0·34	..	...
34	Rohri	...	...	T. C.	...	16,900	16	0·94	...	...	...	...
35	Garhi Yasin	...	...	T. C.	...	7,370	4	0·54	3	0·41	...	...
36	Ghotki	...	...	T. C.	...	4,826	4	0·83	4	0·83	...	...
	UPPER SIND FRONTIER DISTRICT.											
37	Jacobabad	...	...	T. C.	...	15,748	...	...	...	...	...	...
	Total of Towns				...	6,85,202	288	·42	280	·41	9	·01
	Total of the Province				...	38,76,398	486	·12	354	·09	10	·003

No. VI (a)—contd.

7		8		9		10		11		12		13		14	
Malaria.		Other Fevers.		Influenza.		Beri Beri.		Diphtheria.		Chicken-pox.		Mumps.		Whooping Cough.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
77	1·10	11	0·16	...	...	...	...	2	0·05	...	...	...	...	14	0·20
903	14·45	...	...	...	...	...	...	...	...	...	...	...	...	7	0·12
85	5·03	8	0·47	...	...	...	...	...	...	...	...	...	...	...	..
4	0·53	116	15·74	...	...	...	...	...	...	...	...	...	...	...	...
65	13·46	55	11·40	...	...	...	...	1	0·21	...	...	...	...	...	...
...	...	175	1·11	...	...	...	..	...	...	...	...	...	...	...	...
1,591	2·32	1,508	2·20	2	·003	...	...	23	·03	21	·03	...	...	46	·07
2,106	·52	26,302	6·78	2	·0005	...	...	33	·008	148	·038	...	...	69	·018

ANNUAL FORM

1	2				15		16		17		18	
No.	Name of Town.				Cancer.		Pneumonia.		Phthisis.		Other Respi- ratory Diseases.	
					Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	B,—TOWNS.—concl <i>d</i> .											
	SUKKUR DISTRICT.											
32	Sukkur	...	...	T. C.	...	...	145	2'09	40	0'58	143	2'06
33	Shikarpur	...	...	T. C.	...	...	63	1'01	57	0'91	48	0'77
34	Rohri	...	...	T. C.	...	...	10	0'59	4	0'24	18	1'06
35	Garhi Yasin	...	...	T. C.	...	..	1	0'14	11	1'49	5	0'67
36	Ghotki	...	...	T. C.	...	...	8	1'68	5	1'04	9	1'86
	UPPER SIND FRONTIER DISTRICT.											
37	Jacobabad	...	...	T. C.	...	...	8	0'51	...	...	...	...
	Total of Town				...	...	2,929	4'28	1,319	1'93	1,036	1'51
	Total of the Provinces				...	...	5,798	1'50	1,854	'48	1,589	'41

No. VI (a)—*concl'd.*

19		20		21	22			23
Dysentery.		Diarrhœa.		Deaths from child-birth,	Deaths under 1 year.			Infant mortality rate per 1,000 births.
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.	
68	0·98	76	1·10	29	137	108	245	91·49
8	0·12	16	0·26	59	212	196	408	198·83
2	0·12	14	0·83	5	20	17	37	103·93
...	...	1	0·14	12	27	20	47	193·41
2	0·41	8	1·66	6	28	39	67	316·08
1	0·06	...	...	3	20	16	36	153·85
253	·37	671	·98	351	2,382	2,116	4,498	155·73
305	·078	826	·21	889	5,123	4,364	9,487	115·70

APPENDIX

ANNUAL FORM

Deaths registered from cholera in the districts

1	2	3		4							
No.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.
		Number in each district.	Number from which deaths from cholera were reported.	Number in each district.	Number from which deaths from cholera were reported.						
1	Karachi ...	14	1	1,041	1	...	...	...	...	...	...
2	Hyderabad ...	14	2	870	2	...	...	...	...	...	...
3	Nawabshah ...	10	4	734	20	...	...	...	...	...	...
4	Thar Parkar ...	13	1	948	1	...	...	...	...	...	...
5	Larkana ...	10	4	2,118	4	...	...	...	...	...	...
6	Dadu ...	11	6	1,047	30	...	...	...	...	...	...
7	Sukkur ...	13	...	685	...	...	...	...	...	...	...
8	Upper Sind Frontier...	6	...	1,652	...	...	...	...	...	...	...
	Total of the Province...	91	18	9,095	58	...	...	...	...	...	...

III—*contd.*

No. VII.

of the Province of Sind, during each month of the year 1940.

5						6			7			8	9
July.	August	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
						Male.	Female.	Total.	Male.	Female.	Total.		
25	4	...	...	...	...	17	12	29	0'05	0'05	0'05	...	1
1	...	...	1	...	...	2	...	2	0'006	...	'003	0'007	2
9	60	5	...	...	..	41	33	74	0'15	0'15	0'15	0'01	3
1	...	...	...	...	...	1	...	1	0'004	...	0'002	0'02	4
13	4	...	...	...	...	11	6	17	0'04	0'03	0'04	0'05	5
42	22	25	15	...	...	57	47	104	0'17	0'17	0'17	...	6
'...	...	...	...	...	...	...	...	...	...	...	...	0'06	7
...	...	...	...	...	...	...	...	...	...	...	...	0'01	8
91	90	30	16	...	...	129	98	227	0'06	0'06	0'06	0'02	

APPENDIX

ANNUAL FORM

Deaths registered from small-pox in the districts of the

1	2	3		4							
No.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.
		Number in each district.	Number from which deaths from small-pox were reported.	Number in each district.	Number from which deaths from small-pox were reported.						
1	Karachi	14	10	1,041	28	32	14	1	29	18	5
2	Hyderabad	14	9	870	36	44	102	75	94	76	30
3	Nawabshah	10	10	734	45	19	45	28	27	28	4
4	Thar Parkar	13	13	918	84	57	56	41	26	20	6
5	Larkana	10	4	2,118	12	...	...	2	4	2	1
6	Dadu	11	4	1,047	9	3	6	5	5	26	1
7	Sukkur	13	7	685	11	..	...	3	4	...	7
8	Upper Sind Frontier...	6	2	1,652	2	...	1	...	...	...	...
Total for the Province...		91	59	9,095	227	155	224	155	189	170	54

III—*contd.*

No. VIII.

Province of Sind during each month of the year 1940.

5						6			7		8			9	10
July.	August.	September.	October.	November.	December.	Total.			Number of these deaths among children.		Total ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previous five years.	No
						Male.	Female.	Total.	Under 1 year.	Under 10 years.	Male.	Female.	Total.		
1	...	...	...	...	2	59	43	102	12	42	0·18	0·17	0·18	0·13	1
1	9	...	...	1	...	223	209	432	86	192	0·60	0·72	0·65	0·16	2
...	...	5	1	2	2	80	81	161	20	67	0·28	0·37	0·32	0·13	3
...	3	1	2	...	...	130	82	212	14	76	0·50	0·40	0·45	0·23	4
14	...	3	...	...	...	13	13	26	3	16	0·05	0·06	0·06	0·28	5
...	...	...	...	...	...	22	24	46	2	27	0·12	0·16	0·14	0·16	6
2	2	...	2	2	4	14	12	26	4	17	0·04	0·04	0·04	0·09	7
...	...	...	...	2	...	2	1	3	...	2	0·01	0·009	0·01	0·13	8
18	14	9	5	7	8	543	465	1,008	141	441	0·25	0·27	0·26	0·16	

APPENDIX

ANNUAL FORM

Deaths registered from plague in the districts of the

1	2	3		4							
No.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.
		Number in each district.	Number from which deaths from plague were reported.	Number in each district.	Number from which deaths from plague were reported.						
1	Karachi ...	14	...	1,041	...	...	...	...	..	...	..
2	Hyderabad ..	14	...	870	...	...	...	...	...	...	...
3	Nawabshah ...	10	...	734	...	...	...	...	...	...	...
4	Thar Parkar ...	13	...	948	...	...	...	...	...	...	...
5	Larkana ...	10	...	2,118	...	...	...	...	...	...	...
6	Dadu ...	11	...	1,047	...	...	...	...	...	...	...
7	Sukkur ...	13	...	685	...	...	...	...	...	...	...
8	Upper Sind Frontier ...	6	...	1,652	...	...	..	...	...	...	...
Total for the Province .		91	...	9,095	...	...	...	...	...	...	...

III—contd.
No. IX.

Province of Sind during each month of the year 1940.

5						6			7			8	9
July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No
						Male.	Female.	Total.	Male.	Female.	Total.		
...	0·007	1
...	2
...	3
...	4
...	5
...	6
...	7
...	8
...	0·001	

APPENDIX

ANNUAL FORM

Deaths registered from Fevers in the districts of the

1	2	3		4							
No.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.
		Number in each district.	Number from which deaths from fevers were reported.	Number in each district.	Number from which deaths from fevers were reported.						
1	Karachi ...	14	14	1,041	319	158	127	174	194	145	124
2	Hyderabad ...	14	14	870	621	360	311	320	329	315	272
3	Nawabshah ...	10	10	734	734	446	348	379	463	393	291
4	Thar Parkar ...	13	13	948	948	563	469	431	464	432	336
5	Larkana ...	10	10	2,118	1,370	384	336	272	315	360	225
6	Dadu ...	11	11	1,047	431	245	226	172	180	182	110
7	Sukkur ...	13	13	685	641	433	431	355	389	393	382
8	Upper Sind Frontier ...	6	6	1,652	608	139	95	110	81	114	121
	Total for the Province.	91	91	9,095	5,672	2,728	2,343	2,213	2,415	2,334	1,861

III.—*contd.*

No X.

Province of Sind during each month of the year 1940.

5						6			7			8	9
July.	August.	September.	October.	November.	December.	Total,			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No
						Male.	Female.	Total.	Male.	Female.	Total.		
101	115	135	101	127	191	921	771	1,692	2·80	3·07	2·90	3·21	1
257	299	216	205	285	323	2,024	1,468	3,492	5·40	5·05	5·27	5·63	2
295	265	308	276	309	505	2,448	1,830	4,278	8·77	8·41	8·60	7·65	3
361	335	370	531	394	429	2,945	2,170	5,115	10·86	10·54	10·92	8·26	4
329	237	369	547	900	795	2,701	2,368	5,069	10·80	11·72	11·21	9·38	5
144	165	203	240	284	276	1,301	1,126	2,427	6·95	7·65	7·26	8·34	6
306	315	360	535	685	710	2,834	2,460	5,294	8·11	8·96	8·49	8·77	7
94	82	143	266	366	282	1,065	828	1,893	7·31	7·21	7·27	6·75	8
1,887	1,813	2,104	2,701	3,350	3,511	16,239	13,021	29,260	7·47	7·64	7·55	7·01	

APPENDIX

ANNUAL FORM

Deaths registered from Dysentery and Diarrhoea in districts

1	2			3		4							
No.	Districts.			Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.
				Number in each District.	Number from which deaths from dysentery and Diarrhoea were reported.	Number in each District.	Number from which deaths from Dysentery and diarrhoea were reported.						
	Karachi	...	...	14	12	1,041	14	33	21	75	77	97	75
2	Hyderabad	...	...	14	12	870	17	14	11	9	5	13	8
3	Nawabshah	...	...	10	6	734	10	3	...	...	1	5	1
4	Thar Parkar	...	...	13	10	948	35	10	3	6	29	6	12
5	Larkana	...	...	10	5	2,118	8	3	3	2	...	...	1
6	Dadu	...	...	11	9	1,047	18	...	6	2	2	...	...
7	Sukkur	...	...	13	13	685	15	28	13	18	13	21	19
8	Upper Sind Frontier	...	...	6	3	1,652	3	1	1	...	...	...	...
	Total for the Province	...	...	91	70	9,095	120	92	58	112	127	142	116

III—*contd.*

No. XI.

of the Province of Sind during each month of the year 1940.

						6			7			8	9
July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of Population,			Mean ratio per 1,000 of previous five years.	No.
						Male.	Female.	Total.	Male.	Female.	Total.		
44	43	56	43	34	43	348	293	641	1·06	1·16	1·11	1·15	1
6	8	18	10	7	13	78	44	122	0·21	0·15	0·18	0·22	2
4	4	...	1	...	...	11	8	19	0·04	0·04	0·04	0·05	3
1	5	3	1	1	...	47	30	77	0·18	0·15	0·16	0·11	4
...	3	1	2	...	3	8	10	18	0·03	0·05	0·04	0·06	5
2	2	5	2	7	1	19	10	29	0·10	0·07	0·09	0·07	6
14	17	20	18	17	24	133	89	222	0·38	0·32	0·35	0·37	7
1	...	...	...	...	...	2	1	3	0·01	0·01	0·01	0·03	8
72	82	103	77	66	84	646	485	1,131	0·30	0·29	0·29	0·30	

APPENDIX

ANNUAL FORM

Deaths registered from Respiratory diseases in the districts of the

1	2			3		4							
No.	Districts.			Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.
				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.						
1	Karachi	...	...	14	13	1,041	273	502	426	399	382	285	251
2	Hyderabad	...	...	14	13	870	239	337	271	214	181	207	134
3	Nawabshah	...	...	10	10	734	121	82	95	79	59	40	27
4	Thar Parkar	...	...	13	13	948	307	296	292	191	142	106	88
5	Larkana	...	...	10	10	2,118	37	37	23	18	28	24	9
6	Dadu	...	...	11	11	1,047	44	29	40	17	27	14	7
7	Sukkur	...	...	13	13	685	59	83	94	80	68	68	47
8	Upper Sind Frontier	...	...	6	6	1,652	16	13	17	5	3	0	1
	Total of the Province	...	...	91	89	9,095	1,096	1,379	1,258	1,003	890	744	564

III—concl'd.

No. XII.

Province of Sind during each month of the year 1940.

5						6			7			8	9
July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.
						Male.	Female.	Total.	Male.	Female	Total.		
270	257	251	208	304	345	2,151	1,729	3,880	6·54	6·89	6·70	6·70	1
124	121	108	133	148	216	1,298	896	2,194	3·50	3·08	3·32	3·16	2
27	17	13	20	27	43	350	179	529	1·29	0·82	1·06	1·16	3
47	43	11	29	44	102	836	555	1,391	3·19	2·69	2·97	2·72	4
23	7	9	10	19	33	154	86	240	0·61	0·42	0·54	0·48	5
23	13	5	14	12	43	148	96	244	0·79	0·65	0·73	0·76	6
41	40	40	65	74	89	512	277	789	1·46	1·01	1·26	1·18	7
1	3	3	3	2	2	34	19	53	0·23	0·17	0·20	0·22	8
556	501	440	482	630	873	5,483	3,837	9,320	2·52	2·25	2·40	2·33	

APPENDIX
STATEMENT
Showing the Particulars of Vaccination

No	Districts or Towns.						Population according to census of 1931.	Average number of Vaccinators employed throughout the year.
1	2						3	4
1	Karachi	...	...	...	...	T. C.	2,54,031	6
2	Do.	...	...	...	...	C. C.	...	1
3	Do.	...	...	...	...	R. C.	46,748	1
4	Tatta	...	...	...	..	,,	41,020	1
5	Do.	...	...	...	...	T. C.	9,635	1
6	Ghorabari	...	...	...	...	R. C.	37,976	1
7	Mirpur Sakro	...	...	...	...	,,	34,356	1
8	Sujawal	...	...	...	...	,,	37,946	1
9	Jati	...	...	...	...	,,	34,651	1
10	Shahbandar	...	...	...	...	,,	39,890	1
11	Mirpur Bathoro	...	...	...	...	,,	42,826	1
Total, Karachi district							5,79,079	16
12	Hyderabad	...	...	...	...	T. C.	96,021	1
13	Do.	...	...	...	...	C. C.	4,530	1
14	Do.	...	...	...	...	R. C.	79,096	1
15	Hala	...	...	...	...	,,	1,13,496	2
16	Do.	...	...	...	...	T. C.		
17	Matiari	...	...	...	...	,,
18	Nasarpur	...	...	...	...	,,	61,320	1
19	Tando Allahyar	...	...	...	...	,,
20	Do	...	...	...	...	R. C.	1,04,545	2
21	Tando Muhammadkhan	...	...	...	...	T. C.		
22	Guni	...	...	...	...	R. C.	67,998	1
23	Tando Bago	...	...	...	...	,,
24	Badin	...	...	...	...	,,
25	Matli	...	...	...	...	,,
Total, Hyderabad district							6,62,924	14
26	Tando Adam	...	...	...	...	T. C.	1,03,217	1
27	Shahdadpur	...	...	...	...	,,		1
28	Do.	...	...	...	...	R. C.		2

IV
No. I.
in Sind during the year 1940-41.

Total number of persons vaccinated.			Average number of vaccinated by each Vaccinator	Primary Vaccination.				
				Total.	Successful.			Unknown.
					Under one year.	One and under six years.	Total of all ages.	
Male.	Female.	Total.						
5	6	7	8	9	10	11	12	13
{ P. 6,765	6,289	13,054	3,857	13,064	10,365	2,192	12,959	29
{ R. 6,107	3,983	10,090						
{ P. 53	63	116	394	116	22	35	72	22
{ R. 276	2	278						
{ P. 763	672	1,435	1,747	1,435	303	902	1,341	92
{ R. 251	61	312						
{ P. 1,044	743	1,787	2,419	1,787	303	1,198	1,721	64
{ R. 417	215	632						
{ P. 137	121	258	344	258	85	135	248	10
{ R. 72	14	86						
{ P. 868	696	1,564	1,742	1,564	209	1,153	1,551	13
{ R. 153	25	178						
{ P. 696	645	1,341	1,693	1,341	325	879	1,283	47
{ R. 230	122	352						
{ P. 682	550	1,232	1,569	1,232	282	691	1,112	120
{ R. 255	82	337						
{ P. 542	478	1,020	1,346	1,020	305	563	968	51
{ R. 257	59	326						
{ P. 704	463	1,167	1,191	1,167	399	607	1,144	23
{ R. 20	4	24						
{ P. 965	731	1,696	2,079	1,696	377	925	1,602	94
{ R. 268	115	383						
{ P. 13,219	11,451	24,670	2,354	24,680	12,975	9,280	24,001	565
{ R. 8,306	4,692	12,998						
{ P. 1,901	1,830	3,731	11,546	3,731	1,842	874	2,765	927
{ R. 4,056	3,759	7,815						
{ P. 45	42	87	183	87	50	32	85	...
{ R. 54	42	96						
{ P. 1,406	1,210	2,616	4,094	2,616	780	1,522	2,492	124
{ R. 1,164	314	1,478						
{ P. 1,811	1,567	3,378	...	3,378	1,618	1,459	3,167	211
{ R. 365	95	460						
{ P. 81	86	167	2,128	167	90	68	165	2
{ R. 16	15	31						
{ P. 89	82	171	...	171	66	97	166	5
{ R. 40	9	49						
{ P. 33	33	66	...	66	23	40	65	1
{ R. 123	5	128						
{ P. 79	42	121	123	121	54	56	113	8
{ R. 2	...	2						
{ P. 1,592	1,167	2,759	4,209	2,759	693	1,673	2,545	214
{ R. 971	285	1,256						
{ P. 105	138	243	424	243	126	97	232	11
{ R. 150	31	181						
{ P. 2,094	1,444	3,538	2,102	3,538	1,015	1,995	3,302	236
{ R. 529	137	666						
{ P. 1,446	1,133	2,579	3,484	2,579	918	1,214	2,415	164
{ R. 657	248	905						
{ P. 1,904	1,494	3,398	2,023	3,398	1,273	1,634	3,177	221
{ R. 518	130	648						
{ P. 1,376	1,177	2,553	3,335	2,553	10,83	1,129	2,365	188
{ R. 525	257	782						
{ P. 13,962	11,445	25,407	2,850	25,407	9,631	11,890	23,064	2,312
{ R. 9,170	5,327	14,497						
{ P. 303	233	536	560	536	237	238	486	50
{ R. 11	13	24						
{ P. 268	252	520	622	520	236	231	481	39
{ R. 89	13	102						
{ P. 2,031	1,686	3,717	2,034	3,717	1,561	1,713	3,401	313
{ R. 383	68	351						

STATEMENT

No.	Districts or Town.						Re-vaccination.		
							Total.	Successful	Unknown.
I	2						14	15	16
1	Karachi	...	...	...	T. C.	...	10,090	...	10,090
2	Do.	...	...	...	C. C.	...	278	99	168
3	Do.	...	...	...	R. C.	...	312	7	129
4	Tatta	...	...	...	R. C.	...	632	15	111
5	Do.	...	...	...	T. C.	...	86	20	7
6	Ghorabari	...	...	...	R. C.	...	178	2	3
7	Mirpur Sakro	...	...	...	"	...	352	6	48
8	Sujawal	...	...	...	"	...	337	39	199
9	Jati	...	...	...	"	...	326	30	9
10	Shahbundar	...	...	...	"	...	24	2	...
11	Mirpur Bathoro	...	...	...	"	...	383	81	57
Total, Karachi district							12,998	301	10,821
12	Hyderabad	...	...	...	T. C.	...	7,815	207	2,882
13	Do.	...	...	...	C. C.	...	96	96	...
14	Do.	...	...	...	R. C.	...	1,478	36	233
15	Hala	...	...	...	"	...	460	19	15
16	Do.	...	...	...	T. C.	...	31	6	3
17	Matiari	...	...	...	"	...	49	6	6
18	Nasarpur	...	...	...	"	...	128	39	35
19	Tando Allahyar	...	...	...	"	...	2	...	...
20	Do.	...	...	...	R. C.	...	1,256	46	436
21	Tando Muhammadkhan	...	...	...	T. C.	...	181	11	51
22	Guni	...	...	...	R. C.	...	666	118	147
23	Tando Bago	...	...	...	"	...	905	58	386
24	Badin	...	...	...	"	...	648	38	228
25	Matli	...	...	...	"	...	782	33	163
Total, Hyderabad district							14,497	713	4,585
26	Tando Adam	...	...	...	T. C.	...	24	4	2
27	Shahdadpur	...	...	...	"	...	102	1	2
28	Do.	...	...	...	R. C.	...	351	54	32

No. I.—*contd.*

Percentage of successful cases in which the results were known		Persons successfully vaccinated per 1, 00 of population.	Total cost of Vaccination Department.	Number of all successful vaccinations performed by the vaccination staff only.	Average cost of each successful case performed by the vaccination staff.
Primary.	Re-vaccination.				
17	18	19	20	21	22
99·49	...	51·01	Rs. a. p. ...	...	Rs. a. ..
76·60	90·00	...	...	...	...
99·85	3·83	28·84	...	...	...
99·89	2·88	42·32	...	..	...
100·00	25·32	27·82	...	...	...
100·00	1·14	40·89	...	...	..
99·15	1·97	37·52	..	...	...
100·00	28·26	30·33	...	...	...
99·90	9·46	28·80	...	...	...
10·00	8·33	28·73	...	...	...
100·00	24·85	39·30	...	...	...
99·57	13·82	41·97	20,928 0 0	24,302	0 13 9
98·61	4·20	30·95	...	...	...
97·70	100·00	39·96	...	...	...
100·00	2·89	31·96	...	...	...
100·00	4·27	31·09	...	...	...
100·00	21·43				
100·00	13·95				
100·00	41·94	45·79	...	...	...
100·00	...				
100·00	5·61				
100·00	8·46	35·04	...	...	...
100·00	22·74				
100·00	11·18				
100·00	9·05	36·01	...	...	..
100·00	5·33	51·42	...	...	...
99·82	7·19	35·85	17,453 0 0	23,767	0 11 9
100·00	18·18	42·89	...	...	..
100·00	1·00				
99·91	16·93				

STATEMENT

No.	Districts or Towns.					Population according to census of 1931.	Average number of Vaccinators employed throughout the year.
1	2					3	4
29	Naushahro Feroze	...	...	...	R. C.	86,068	2
30	Kandiaro	...	...	...	"	80,814	1
31	Sakrand	...	...	...	"	62,476	1
32	Moro	...	...	...	"	59,563	1
33	Nawabshah	...	...	...	"	56,270	1
34	Do.	...	...	...	T. C.		1
35	Sinjhoro	...	...	...	R. C.	48,204	1
Total, Nawabshah district					...	4,96,612	12
36	Mirpurkhas	...	...	...	R. C.	47,536	1
37	Do.	...	...	...	T. C.		1
38	Umerkot	...	...	...	"	3,841	1
39	Do.	...	...	...	R. C.	39,628	
40	Samaro	...	...	...	"	43,779	1
41	Jamesabad	...	...	...	"	30,745	1
42	Chachro	...	...	...	"	61,974	1
43	Nagar Parkar	...	...	...	"	41,726	1
44	Diplo	...	...	...	"	25,242	1
45	Mithi	...	...	...	"	45,709	1
46	Khipro	...	...	...	"	51,030	2
47	Sanghar	...	...	...	"	33,777	1
48	Digri	...	...	...	"	43,053	1
Total, Thar Parkar district					...	4,68,040	13
49	Dadu	...	...	...	T. C.	57,549	1
50	Do.	...	...	...	R. C.		1
51	Sehwan	...	...	...	"	45,086	1
52	Do.	...	...	...	T. C.		1
53	Kotri	...	...	...	"	53,787	1
54	Do.	...	...	...	R. C.		1
55	Manjhand	...	...	...	T. C.	...	...
56	Johi	...	...	...	R. C.	51,448	1
57	Kakar	...	...	...	"	48,448	1
58	Mehar	...	...	...	"	63,001	1
59	Kohistan	...	...	...	"	17,374	1
Total, Dadu district					...	3,36,693	10

No. I.—*contd.*

Total number of persons vaccinated.			Average number of persons vaccinated by each Vaccinator.	Primary Vaccination.				
				Total.	Successful.			Unknown.
					Under one year.	One and under six years.	Total of all ages.	
Male. 5	Female. 6	Total. 7	8	9	10	11	12	13
{ P. 2,366	2,004	4,370	2,630	4,370	2,476	1,535	4,110	260
{ R. 711	179	890						
{ P. 1,463	1,379	2,942	3,074	2,942	1,577	1,103	2,788	154
{ R. 110	22	132						
{ P. 1,130	916	2,046	2,106	2,046	974	949	1,955	91
{ R. 39	21	60						
{ P. 1,052	981	2,033	2,209	2,033	977	912	1,939	94
{ R. 148	28	176						
{ P. 1,163	989	2,152	2,346	2,152	909	976	1,964	187
{ R. 135	59	194						
{ P. 144	129	273	574	273	107	137	244	29
{ R. 203	98	301						
{ P. 939	899	1,838	2,174	1,838	824	828	1,745	92
{ R. 236	100	336						
{ P. 10,959	9,468	20,427	1,916	20,427	9,878	8,622	1,9113	1,309
{ R. 1,965	601	2,566						
{ P. 1,047	824	1,871	2,906	1,871	689	944	1,727	141
{ R. 738	297	1,035						
{ P. 150	135	285	508	285	163	60	228	57
{ R. 170	53	223						
{ P. 34	29	63		63	32	23	60	3
{ R. 2	...	2	2,231					
{ P. 698	584	1,282		1,282	426	667	1,192	90
{ R. 598	286	884						
{ P. 1,171	821	1,992	3,237	1,992	978	826	1,861	131
{ R. 882	363	1,245						
{ P. 729	593	1,322	2,274	1,322	581	566	1,192	129
{ R. 633	319	952						
{ P. 790	735	1,525	1,930	1,525	612	756	1,382	143
{ R. 258	147	405						
{ P. 605	517	1,122	1,350	1,122	507	561	1,105	17
{ R. 145	83	228						
{ P. 522	498	1,020	1,704	1,020	297	554	910	110
{ R. 506	178	684						
{ P. 974	853	1,827	2,097	1,827	817	823	1,663	164
{ R. 189	81	270						
{ P. 1,575	1,222	2,797	1,813	2,797	1,206	1,301	2,618	179
{ R. 579	249	828						
{ P. 740	582	1,322	1,930	1,322	624	531	1,234	88
{ R. 472	136	608						
{ P. 1,368	1,170	2,538	4,222	2,538	1,987	1,102	2,411	127
{ R. 1,098	526	1,624						
{ P. 10,403	8,563	18,966	2,155	18,966	8,019	8,734	17,583	1,579
{ R. 6,270	2,778	9,048						
{ P. 94	81	175	189	175	74	87	162	13
{ R. 12	2	14						
{ P. 1,074	1,039	2,113	2,393	2,113	1,364	667	2,077	36
{ R. 228	52	280						
{ P. 857	723	1,580	2,149	1,580	827	544	1,473	107
{ R. 500	69	569						
{ P. 76	66	142	145	142	52	82	137	5
{ R. 2	1	3						
{ P. 206	177	383	654	383	118	197	323	58
{ R. 210	61	271						
{ P. 636	439	1,075	1,716	1,075	362	622	1,023	52
{ R. 407	165	572						
{ P. 21	23	44	...	44	27	14	41	3
{ R. 16	9	25						
{ P. 1,231	761	1,992	2,190	1,992	1,157	587	1,761	231
{ R. 157	41	198						
{ P. 790	799	1,589	1,904	1,589	735	735	1,514	75
{ R. 259	56	315						
{ P. 1,022	1,057	2,079	2,178	2,079	1,041	870	1,942	137
{ R. 92	7	99						
{ P. 326	278	604	824	604	202	318	574	30
{ R. 168	52	220						
{ P. 6,333	5,443	11,776	1,443	11,776	5,959	4,723	11,027	747
{ R. 2,051	515	2,566						

STATEMENT

No.	Districts or Town.					Re-vaccination.		
						Total.	Successful	Unknown.
						14	15	16
29	Naushahr & Feroze	...	...	...	R. C.	890	114	256
30	Kandiaro	...	...	...	"	132	10	25
31	Sakrand	...	...	...	"	60	..	42
32	Moro	...	...	...	"	176	18	76
33	Nawabshah	...	...	...	"	194	1	6
34	Do.	...	...	...	T. C.	301	2	62
35	Sinjhero	...	...	...	R. C.	336	26	79
Total, Nawabshah district						2,566	230	582
36	Mirpurkhas	...	...	...	R. C.	1,035	9	615
37	Do.	...	...	...	T. C.	223	12	161
38	Umerkot	...	...	...	"	2	1	1
39	Do.	...	...	...	R. C.	884	159	252
40	Samaro	...	...	...	"	1,245	146	305
41	Jamesabad	...	...	...	"	952	159	490
42	Chachro	...	...	...	"	405	5	137
43	Nagar Parkar	...	...	...	"	228	...	...
44	Diplo	...	...	...	"	684	68	216
45	Mithi	...	...	...	"	270	7	141
46	Khipro	...	...	...	"	828	16	583
47	Sanghar	...	...	...	"	608	37	300
48	Digri	...	...	...	"	1,684	186	654
Total, Thar Parkar district						9,048	805	3,755
49	Dadu	...	...	...	T. C.	14	3	10
50	Do.	...	...	...	R. C.	280	17	52
51	Sehwan	...	...	...	"	569	62	213
52	Do.	...	...	...	T. C.	3	1	1
53	Kotri	...	...	...	"	271	10	47
54	Do.	...	...	...	R. C.	572	31	11
55	Manjhand	...	...	...	T. C.	25	...	4
56	Johi	...	...	...	R. C.	198	14	135
57	Kakar	...	...	...	"	315	21	77
58	Mehar	...	...	...	"	99	9	56
59	Kohistan	...	...	...	"	220	...	...
Total, Dadu district						2,566	168	606

No. I—contd.

Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost of Vaccination Department.	Number of all successful vaccinations performed by the vaccination staff only.	Average cost of each successful case performed by the vaccination staff.
Primary. 17	Re-vaccination. 18				
		19	20	21	22
			Rs. a. p.		Rs. a. p.
100·00	17·98	49·08	...	...	...
100·00	9·35	34·62	...	...	...
100·00	...	31·29	...	...	...
100·00	18·00	32·86	...	...	...
99·95	00·53	}	...	...	...
100·00	00·84		...	...	...
99·94	10·12		...	...	...
99·97	11·59	38·95	12,313 0 0	19,343	0 10 2
99·83	2·14	}	...	...	...
100·00	19·35		...	...	...
100·00	100·00		...	...	...
100·00	25·16	15·88	...	...	...
100·00	25·16	34·09	...	...	...
100·00	15·53	45·84	...	...	...
99·82	34·42	43·94	...	...	...
100·00	1·87	22·38	...	...	...
100·00	...	26·48	...	...	...
100·00	14·53	38·74	...	...	...
100·00	5·43	36·54	...	...	...
100·00	6·53	51·62	...	...	...
100·00	12·01	37·63	...	...	...
100·00	16·46	60·32	...	...	...
99·98	15·21	39·29	15,462 0 0	18,388	0 13 5
100·00	75·00	}	...	...	...
100·00	7·46		...	...	...
100·00	17·42		...	...	...
100·00	50·00	}	...	...	...
99·38	4·46		...	...	...
100·00	5·53		...	...	...
100·00	...	...	...	...	...
100·00	22·22	34·51	...	...	...
100·00	8·82	3·68	...	...	...
100·00	20·93	30·97	...	...	...
100·00	...	33·04	...	...	...
99·98	8·57	33·25	9,252 0 0	11,195	0 13 2

No. I.—contd

Total number of persons vaccinated.			Average number of vaccinated by each Vaccinator	Primary Vaccination.				
				Total.	Successful.			Unknown.
					Under one year.	One and under six years.	Total of all ages.	
Male.	Female.	Total.						
5	6	7	8	9	10	11	12	13
{ P. 359	276	635	721	635	190	395	594	41
{ R. 55	31	86						
{ P. 1,100	1,037	2,137	3,484	2,137	1,210	612	1,829	305
{ R. 878	469	1,347						
{ P. 759	669	1,428	3,253	1,428	1,003	288	1,297	124
{ R. 1,210	615	1,825						
{ P. 99	129	228	254	229	105	112	221	5
{ R. 14	12	26						
{ P. 115	129	244	359	244	116	107	226	18
{ R. 112	3	115						
{ P. 1,102	1,026	2,128	3,695	2,128	1,214	648	1,891	237
{ R. 1,143	424	1,567						
{ P. 735	626	1,361	2,841	1,361	607	587	1,212	148
{ R. 1,108	372	1,480						
{ P. 989	1,013	2,002	3,546	2,002	1,106	704	1,841	158
{ R. 609	935	1,544						
{ P. 799	635	1,434	4,802	1,434	805	417	1,243	191
{ R. 2,266	1,102	3,368						
{ P. 865	798	1,663	2,663	1,663	892	546	1,491	172
{ R. 641	359	1,000						
{ P. 6,922	6,338	13,260	2,562	13,261	7,248	4,416	11,845	1,399
{ R. 8,036	4,322	12,358						
{ P. 1,175	1,173	2,348	2,473	2,348	1,624	518	2,158	189
{ R. 30	95	125						
{ P. 1,398	1,259	2,657	3,036	2,657	1,623	795	2,430	227
{ R. 274	105	379						
{ P. 1,049	989	2,038	2,478	2,038	1,395	468	1,891	147
{ R. 339	101	440						
{ P. 1,093	948	2,041	2,173	2,041	1,078	918	1,996	45
{ R. 106	26	132						
{ P. 219	230	449	456	450	243	173	422	27
{ R. 7	...	7						
{ P. 1,284	1,214	2,498	2,706	2,498	1,525	799	2,335	163
{ R. 185	23	208						
{ P. 11,68	1,084	2,252	2,691	2,252	1,561	443	2,009	243
{ R. 133	17	150						
{ P. 131	125	256	2,691	256	162	69	232	24
{ R. 29	4	33						
{ P. 23	35	58		58	31	20	54	4
{ R. ...	...	...				
{ P. 640	659	1,299	1,487	1,299	796	229	1,033	266
{ R. 111	19	130						
{ P. 739	717	1,456	1,491	1,456	830	513	1,360	96
{ R. 28	7	35						
{ P. 874	753	1,627	1,740	1,627	1,032	335	1,576	251
{ R. 111	2	113						
{ P. 629	591	1,220	1,354	1,220	715	304	1,021	199
{ R. 81	53	134						
{ P. 10,422	9,777	20,199	20,080	20,200	12,618	5,584	18,317	1,881
{ R. 1,434	452	1,886						
{ P. 773	707	1,480	1,686	1,480	770	557	1,368	112
{ R. 165	41	206						
{ P. 269	250	519	579	519	243	260	508	11
{ R. 38	22	60						
{ P. 731	573	1,304	1,468	1,304	602	654	1,270	34
{ R. 145	19	164						
{ P. 1,138	1,009	2,147	2,242	2,147	1,276	768	2,068	79
{ R. 73	22	95						
{ P. 1,346	1,210	2,586	2,730	2,586	1,144	1,099	2,280	306
{ R. 108	36	144						
{ P. 1,267	1,104	2,371	2,646	2,371	1,234	861	2,179	192
{ R. 243	32	275						
{ P. 5,521	4,883	10,407	1,892	10,407	5,269	4,199	9,673	734
{ R. 772	172	944						
{ P. 77,744	67,368	1,45,112	2,195	1,45,124	71,597	57,448	1,34,613	10,326
{ R. 38,004	18,859	56,863						

STATEMENT

No.	Districts or Towns.					Re-vaccination.		
						Total.	Successful.	Unknown.
1	2					14	15	16
60	Larkana	...	...	...	T. C.	86	14	49
61	Do.	...	...	...	R. C.	1,347	286	663
62	Ratodero	...	...	...	..	1,825	24	189
63	Do.	...	...	...	T. C.	26	9	8
64	Kambar	...	...	...	..	115	22	41
65	Do.	...	...	...	R. C.	1,567	172	673
66	Miro Khan	...	...	...	..	1,480	165	535
67	Warah	...	...	...	..	1,544	310	193
68	Dokri	...	...	...	..	3,368	126	1,097
69	Shahdadkot	...	...	...	..	1,000	133	414
	Total, Larkana district					12,358	1,261	3,822
70	Shikarpur	...	...	...	T. C.	125	28	30
71	Do.	...	...	...	R. C.	379	32	92
72	Sukkur	...	...	...	..	440	27	220
73	Do.	...	...	...	T. C.	132	43	66
74	Rohri	...	...	...	..	7	...	5
75	Do.	...	...	...	R. C.	208	14	172
76	Garhi Yasin	...	...	...	..	150	17	62
77	Do.	...	...	...	T. C.	33	4	9
78	Ghotki	...	...	...	..	...	...	...
79	Do.	...	...	...	R. C.	130	4	104
80	Mirpur Mathelo	...	...	...	..	35	5	17
81	Pano Akil	...	...	...	..	113	6	15
82	Ubauro	...	...	...	..	134	5	106
	Total, Sukkur district					1,886	185	899
83	Jacobabad	...	...	...	R. C.	206	19	122
84	Do.	...	...	...	T. C.	60	6	31
85	Garhi Khairo	...	...	...	R. C.	164	4	116
86	Thul	...	...	...	..	95	12	18
87	Kandhkot	...	...	...	..	144	...	99
88	Kashmore	...	...	...	..	275	15	105
	Total, Upper Sind Frontier district					944	56	491
	Total, Sind					56,863	3,719	25,601

No. I—contd.

Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of popula- tion.	Total cost of Vaccination Department.	Number of all successful vaccinations performed by the vaccination staff only.	Average cost of each successful case performed by the vaccination staff.
Primary.	Re-vaccination.				
17	18	19	20	21	22
			Rs. a. p.		Rs. a. p.
100·00	37·84	22·65	...	...	...
99·84	41·81	29·68	...	...	...
99·46	1·47	25·94	...	...	...
99·10	50·00				
100·00	29·73	25·52	...	...	...
100·00	19·24	28·64	...	...	...
99·92	17·46	29·17	...	...	...
99·84	22·95	33·20	...	...	...
100·00	5·55	17·88	...	...	...
100·00	22·70	43·66	...	...	...
99·87	14·84	28·16	12,471 0 0	13,106	0 15 3
99·95	29·47	34·97	...	...	...
100·00	11·19	33·53	...	...	...
100·00	12·27	28·91	...	...	...
100·00	65·15	29·43	...	...	...
100·00	...	24·97	...	...	...
100·00	38·89	30·18	...	...	...
100·00	19·32	32·94	...	...	...
100·00	16·67				
100·00	...	23·29	...	...	...
100·00	15·38				
100·00	27·78	28·11	...	...	...
100·00	6·12	29·23	...	...	...
100·00	17·86	22·23	...	...	...
99·99	18·74	29·66	12,280 0 0	18,502	0 10 7
100·00	22·62	19·38	...	...	...
100·00	20·69	32·64	...	...	...
100·00	8·33	...	...	...	...
100·00	15·58	33·93	...	...	...
100·00	...	35·34	...	...	...
100·00	8·82	52·99	...	...	...
100·00	12·36	38·22	6,437 0 0	9,729	0 10 7
99·87	11·90	35·59	1,16,570 0 0	1, 38,332	0 13 6

STATEMENT

No.	Districts or Towns.	Population according to census of 1931.	Average number of Vaccinators employed throughout the year.
1	2	3	4
1	Karachi district	3,15,413	8
2	Hyderabad „ ..	5,62,373	10
3	Nawabshah „ ..	4,96,612	9
4	Thar Parkar „ ..	4,64,199	12
5	Larkana „ ..	4,38,558	7
6	Dadu „ ..	3,36,693	7
7	Sukkur „ ..	4,75,097	8
8	Upper Sind Frontier	2,38,796	5
	Total Sind, excluding Towns ...	33,27,741	66
	KARACHI COLLECTORATE.		
	Karachi T. C. ...	2,54,031	6
	Do. C. C. ...	...	1
	Tatta T. C. ...	9,635	1
	Total ...	2,63,666	8
	HYDERABAD COLLECTORATE.		
	Hyderabad T. C. ..	96,021	1
	Do. C. C. ...	4,530	1
	Hala T. C. ...	7,304	...
	Matlari „ ...	6,074	...
	Nasarpur „ ...	4,243	...
	Tando Allahyar „ ...	5,146	1
	Tando Muhammadkhan „ ...	6,560	1
	Total ...	1,29,878	4
	NAWABSHAH COLLECTORATE.		
	Tando Adam T. C. ...	12,859	1
	Shahdadpur „ ...	7,572	1
	Nawabshah ... .. „ ...	...	1
	Total ...	20,431	3
	THAR PARKAR COLLECTORATE.		
	Umarkot T. C. ...	3,581	...
	Mirpurkhas „ ...	9,120	1
	Total ...	12,701	1

No. 1.—*contd.*

Total number of persons vaccinated.			Average number of persons vaccinated by each Vaccinator.	Primary Vaccination				
				Total.	Successful.			Unknown.
					Under one year.	One and under six years.	Total of all ages.	
Male.	Female.	Total.						
5	6	7	8	9	10	11	12	13
{ P. 6,264 R. 1,851	4,978 693	11,242 2,544	} 1,723	11,242	2,503	6,918	10,722	504
{ P. 11,629 R. 4,729	9,192 1,466	20,821 6,195	} 2,702	20,821	7,380	10,626	19,463	1,358
{ P. 10,244 R. 1,662	8,854 477	19,098 2,139	} 2,360	19,098	9,298	8,016	17,902	1,191
{ P. 10,219 R. 6,098	8,399 2,725	18,618 8,823	} 2,287	18,618	7,824	8,651	17,295	1,319
{ P. 6,349 R. 7,855	5,804 4,276	12,153 12,131	} 3,469	12,153	6,837	3,302	10,804	1,335
{ P. 5,936 R. 1,811	5,096 442	11,032 2,253	} 1,898	11,032	5,688	4,343	10,364	668
{ P. 7,781 R. 1,262	7,266 327	15,047 1,589	} 2,080	15,047	9,477	3,886	13,455	1,592
{ P. 5,255 R. 734	4,633 150	9,888 884	} 2,154	9,888	5,026	3,939	9,165	723
{ P. 63,677 R. 26,002	54,222 10,556	1,17,899 36,558	} 2,340	1,17,899	54,033	50,181	1,09,170	8,690
{ P. 6,765 R. 6,107	6,289 3,983	13,054 10,090	} 3,857	13,064	10,365	2,192	12,959	29
{ P. 53 R. 276	63 2	116 278	} 394	116	22	35	72	22
{ P. 137 R. 72	121 14	258 86	} 344	258	85	135	248	10
{ P. 6,955 R. 6,455	6,473 3,999	13,428 10,454	} 2,985	13,438	10,472	2,362	13,279	61
{ P. 1,901 R. 4,056	1,830 3,759	3,731 7,815	} 11,546	3,731	1,842	874	2,765	927
{ P. 45 R. 54	42 42	87 96	} 183	87	50	32	85	...
{ P. 81 R. 16	86 15	167 31	} ...	167	90	68	165	2
{ P. 89 R. 40	82 9	171 49	} ...	171	66	97	166	5
{ P. 33 R. 123	33 5	66 128	} ...	66	23	40	65	1
{ P. 79 R. 2	42 ...	121 2	} 123	121	54	56	113	8
{ P. 105 R. 150	198 31	243 181	} 424	243	126	97	232	11
{ P. 2,333 R. 4,441	2,253 3,861	4,586 8,302	} 3,222	4,586	2,251	1,264	3,591	954
{ P. 303 R. 11	233 13	536 24	} 560	536	287	238	486	50
{ P. 268 R. 89	252 31	520 102	} 622	520	236	231	481	39
{ P. 144 R. 203	129 98	273 301	} 574	273	107	137	244	29
{ P. 715 R. 303	614 124	1,329 427	} 585	1,329	580	606	1,211	118
{ P. 34 R. 2	29 ...	63 2	} ...	63	32	23	60	3
{ P. 150 R. 170	135 53	285 223	} 508	258	163	60	228	57
{ P. 184 R. 172	164 53	348 225	} 573	348	195	83	288	60

STATEMENT

No.	Districts or Town.						Re-vaccination.		
							Total.	Successful	Unknown.
							14	15	16
1	2								
1	Karachi	district	...	...	...	...	2,544	182	536
2	Hyderabad	„	...	...	...	..	6,195	348	1,608
3	Nawabshah	„	...	...	...	...	2,139	223	516
4	Thar Parkar	„	...	...	...	...	8,823	729	3,593
5	Larkana	„	...	...	...	...	12,131	1,216	3,764
6	Dadu	„	...	...	...	...	2,253	154	544
7	Sukkur	„	...	...	...	...	1,589	110	789
8	Upper Sind Frontier	„	...	...	...	...	884	50	460
Total, Sind, excluding Towns ...							35,558	3,075	11,830
KARACHI COLLECTORATE.									
Karachi	...	...	...	...	T. C.	...	10,090	...	10,090
Do.	...	...	...	...	C. C.	...	278	99	168
Tatta	...	...	...	...	T. C.	...	86	20	7
Total ...							10,454	119	10,265
HYDERABAD COLLECTORATE.									
Hyderabad	...	...	...	...	T. C.	...	7,815	207	2,882
Do.	...	...	...	...	C. C.	...	96	96	...
Hala	...	...	...	...	T. C.	...	31	6	3
Matiari	...	...	...	...	„	...	49	6	6
Nasarpur	...	...	...	...	„	...	128	39	35
Tando Allahyar	...	...	...	...	„	...	2	0	0
Tando Muhammadkhan	...	...	...	...	„	...	181	11	51
Total ...							8,302	365	2,977
NAWABSHAH COLLECTORATE.									
Tando Adam...	...	...	...	...	T. C.	...	24	4	2
Shahdadpur	...	...	...	...	„	...	102	1	2
Nawabshah	...	...	...	...	„	...	301	2	62
Total ...							427	7	66
THAR PARKAR COLLECTORATE.									
Umarkot	...	...	...	..	T. C.	..	2	1	1
Mirpurkhas	...	...	...	...	„	...	223	12	161
Total ...							225	13	162

No. I.—contd

Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost of Vaccination Department.	Number of all successful vaccinations performed by the vaccination staff only.	Average cost of each successful case performed by the vaccination staff.
Primary.	Re-vaccination.				
17	18	19	20	21	22
99·85	9·15	34·57	Rs. a. p.	1,0904	Rs. a. p. ...
100·00	7·59	35·23	...	19,811	...
99·97	13·74	36·50	...	18,125	...
99·98	15·14	38·96	...	18,087	...
99·87	14·53	27·41	...	12,020	...
100·00	9·01	31·24	...	10,518	...
100·00	13·75	28·55	...	13,565	...
100·00	11·79	38·59	...	9,215	...
99·96	12·44	33·73	...	1,12,245	...
99·49	...	51·01	...	...	...
76·60	90·00	...	...	...	...
100·00	25·32	27·82	...	...	...
99·34	62·96	50·81	...	...	...
98·61	4·20	30·95	...	...	...
97·70	100·00	39·96	...	...	...
100·00	21·43	23·41	...	...	...
100·00	13·95	28·32	...	...	...
100·00	41·94	24·51	...	...	...
100·00	...	21·96	...	...	...
100·00	8·46	37·04	...	...	...
98·87	6·85	30·46	...	...	...
100·00	18·18	38·10	...	...	...
100·00	1·00	63·06	...	...	...
100·00	84	.	...	...	...
100·00	1·94	59·62	...	...	...
100·00	100·00	17·03	...	...	...
100·00	19·35	26·32	...	...	...
100·00	20·63	23·70	...	...	...

STATEMENT

No.	District or Towns.	Population according to census of 1931.	Average number of Vaccinators employed throughout the year.
1	2	3	4
LARKANA COLLECTORATE.			
	Larkana T. C. ...	26,841	1
	Kambar " ...	9,717	1
	Ratodero " ...	7,285	1
	Total ...	43,843	3
DADU COLLECTORATE.			
	Dadu T. C. ...	6,562	1
	Sehwan " ...	4,107	1
	Kotri " ...	10,033	1
	Manjhand " ...	2,746	...
	Total ...	23,448	3
SUKKUR COLLECTORATE.			
	Sukkur T. C. ...	69,277	1
	Shikarpur " ...	62,505	1
	Rohri " ...	16,900	1
	Garhi Yasin " ...	6,925	...
	Ghotki " ...	4,638	...
	Total ...	1,60,245	3
UPPER SIND FRONTIER COLLECTORATE.			
	Jacobabad T. C. ...	15,748	1
	Total ...	15,748	1
	Total, Towns ...	6,69,960	26
	Inspector's cost ... ..	...	...
	Total, Sind ...	38,87,070	92

No. I.—*contd.*

Total number of persons vaccinated.			Average number of vaccinated by each Vaccinator	Primary Vaccination.					
				Total.	Successful.			Unknown.	
					Under one year.	One and under six years.	Total of all ages.		
Male.	Female.	Total.							
5	6	7	8	9	10	11	12	13	
{ P. 359	276	635	}	721	635	190	395	594	41
{ R. 55	31	86							
{ P. 115	129	244							
{ R. 112	3	115	}	359	244	116	107	226	18
{ P. 99	129	228							
{ R. 14	12	26							
{ P. 573	534	1,107	}	445	1,108	411	614	1,041	64
{ R. 181	46	227							
{ P. 94	81	175	}	189	175	74	87	162	13
{ R. 12	2	14							
{ P. 76	66	142							
{ R. 2	1	3	}	145	142	52	82	137	5
{ P. 206	177	383							
{ R. 210	61	271							
{ P. 21	23	44	}	...	44	27	14	41	3
{ R. 16	9	25							
{ P. 397	347	744	}	352	744	271	380	663	79
{ R. 240	73	313							
{ P. 1,093	948	2,041	}	2,173	2,041	1,078	918	1,996	45
{ R. 106	26	132							
{ P. 1,175	1,173	2,348							
{ R. 30	95	125	}	2,473	2,348	1,624	518	2,158	189
{ P. 219	230	449							
{ R. 7	...	7							
{ P. 131	125	256	}	...	256	162	69	232	24
{ R. 29	4	33							
{ P. 23	35	58							
{ R.	}	...	58	34	20	54	4
{ P. 2,641	2,511	5,152	}	1,816	5,153	3,141	1,698	4,862	289
{ R. 172	125	297							
{ P. 269	250	519	}	579	519	243	260	508	11
{ R. 38	22	60							
{ P. 269	250	519	}	579	519	243	260	508	11
{ R. 38	22	60							
{ P. 14,067	13,146	27,213	}	1,828	27,225	17,564	7,267	25,443	1,636
{ R. 12,002	8,303	20,305							
...
{ P. 77,744	67,368	1,45,112	}	2,195	1,45,124	71,597	57,448	1,34,613	10,326
{ R. 38,004	18,859	56,863							

STATEMENT

No.	Districts or Towns.	Re-vaccination.		
		Total.	Successful.	Unknown.
1	2	14	15	16
LARKANA COLLECTORATE.				
	Larkana ... T. C. ...	86	14	49
	Kambar ... " ...	115	22	41
	Ratodero ... " ...	26	9	8
	Total ...	227	45	98
DADU COLLECTORATE.				
	Dadu ... T. C. ...	14	3	10
	Sehwan ... " ...	3	1	1
	Kotri ... " ...	271	10	47
	Manjhand ... " ...	25	...	4
	Total ...	313	14	62
SUKKUR COLLECTORATE.				
	Sukkur ... T. C. ...	132	43	66
	Shikarpur ... " ...	125	28	30
	Rohri ... " ...	7	...	5
	Garhi Yasin ... " ...	33	4	9
	Ghotki ... " ...	...	...	...
	Total ...	297	75	110
UPPER SIND FRONTIER COLLECTORATE.				
	Jacobabad ... T. C. ...	60	6	31
	Total ...	60	6	31
	Total, Towns ...	2,0305	644	13,771
	Inspector's cost ...	...	...	...
	Total, Sind ...	56,863	3,719	25,601

No. I—contd.

Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost of Vaccination Department	Number of all successful vaccinations performed by the vaccination staff only.	Average cost of each successful case performed by the vaccination staff.
Primary. 17	Re-vaccination. 18				
		19	20	21	22
			Rs. a. p.		Rs. a. p.
100'00	37'84	22'65	...	...	...
100'00	29'73	25'52	...	...	...
99'10	50'00	31'57	...	...	...
99'81	34'88	22'77	...	.	...
100'00	75'60	25'14	...	...	...
100'00	50'00	33'60	...	...	...
99'38	4'46	33'19	...	...	...
100'00	...	14'93	...	...	...
99'70	5'58	28'87	...	...	...
100'00	65'15	29'43	...	...	...
99'95	29'47	34'97	...	...	...
100'00	...	24'97	...	...	...
100'00	16'67	34'08	...	...	...
100'00	...	11'64	...	...	...
99'98	40'11	30'81	...	...	...
100'00	20'69	32'64	...	...	...
100'00	20'69	32'64	...	...	...
99'48	9'86	38'94	...	...	...
...
99'87	11'90	35'59	...	...	...

STATEMENT

No.	Districts or Towns.	Population according to census of 1931.	Average number of Vaccinators employed throughout the year.
1	2	3	4
BY SPECIAL STAFF.			
Local Boards	33,27,741	66
Municipalities	5,54,799	24
Cantonments	4,530	2
Total, Sind		38,87,070	92
By Dispensary Staff
By Railway Staff
Private Medical Practitioners
Total		...	...
GRAND TOTAL		38,87,070	92

No. I—contd.

Total number of persons vaccinated.			Average number of persons vaccinated by each Vaccinator.	Primary Vaccination.				
				Total.	Successful.			Unknown.
					Under one year.	One and under six years.	Total of all ages.	
Male.	Female.	Total.						
5	6	7	8	9	10	11	12	13
{ P. 63,677	54,222	1,17,899	2,340	1,17,899	54,033	50,181	1,09,170	8,690
{ R. 26,002	1,0556	36,558						
{ P. 13,969	13,041	27,010	1,956	27,022	17,492	7,200	25,286	1,614
{ R. 11,672	8,239	19,931						
{ P. 98	105	203	288	203	72	67	157	22
{ R. 330	44	374						
{ P. 77,744	67,368	1,45,112	2,195	1,45,124	71,597	57,448	1,34,613	10,326
{ R. 38,0 4	18,859	56,863						
{ P. 119	4	123	...	123	2	...	108	10
{ R. 5,835	64	5,899						
{ P. 148	92	240	...	240	140	48	195	38
{ R. 729	110	839						
{ P. 10	8	18	...	18	14	3	17	1
{ R. 61	18	79						
{ P. 277	104	381	...	381	156	51	320	49
{ R. 6,625	192	6,817						
{ P. 78,021	67,472	1,45,493	2,274	1,45,505	71,753	57,499	1,34,933	10,375
{ R. 44,629	19,051	63,680						

STATEMENT

No.	Districts or Towns,					Re-vaccination.		
						Total.	Successful.	Unknown.
1	2					14	15	16
	BY SPECIAL STAFF.							
	Local Boards	...	...	...	..	36,558	3,075	11,830
	Municipalities	...	...	...	...	19,931	449	13,603
	Cantonments	...	...	...	.	374	195	168
	Total, Sind					56,863	3,719	25,601
	By Dispensary Staff		...	...	...	5,899	5,062	37
	By Railway Staff		...	...	...	839	586	93
	Private Medical Practitioners		...	...	...	79	51	28
	Total					6,817	5,699	158
	GRAND TOTAL					63,680	9,413	25,759

No. I.—*contd.*

Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of popula- tion.	Total cost of Vaccination Department.	Number of all successful vaccinations performed by the vaccination staff only,	Average cost of each successful case performed by the vaccination staff.
Primary.	Re-vaccination.				
17	18	19	20	21	22
			Rs. a. p.		Rs. a. p.
99·96	12·44	33·73	...	1,12,245	...
99·57	7·10	46·39	...	25,735	...
86·74	94·66	77·70	...	352	...
99·87	11·90	35·59	...	1,38,332	...
95·58	86·35	...	...	5,170	...
96·53	78·55	...	...	781	...
100·00	100·00	...	...	68	...
96·39	85·58	...	...	6,019	...
99·86	24·84	37·14	...	1,44,351	...

STATEMENT NO. I.—*contd*

Summary.

				Total number of persons vaccinated.		Total number of operations performed.		Percentage of successful cases in which results were known.	
				Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
By Special Staff	...	...	...	...	...	...	...	...	...
Districts excluding towns	...	...	...	1,17,899	36,558	1,17,899	36,558	99.96	12.44
Towns	...	...	...	27,010	19,931	27,022	19,931	99.57	7.10
Cantonments	...	...	...	203	374	203	374	86.74	94.66
Total				1,45,112	56,863	1,45,124	56,863	99.87	11.90

Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Ratio of successful vaccinations per 1,000 of population.	Total cost of department.	Number of all successful vaccinations performed.	Average cost of each successful case.
Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One and under six years.				
...	...	...	...	...	Rs. a. p.	...	Rs. a. p.
66	2,340	54,033	50,181	33.73	1,12,245	...	...
24	1,956	17,492	7,200	46.39	25,735	...	...
2	288	72	67	77.70	352	...	...
92	2,195	71,597	57,448	35.59	1,38,332	...	...

STATEMENT NO. I.—*concl'd*

Summary.

	Total number of persons vaccinated.		Total number of operations performed.		Percentage of successful cases in which results were known.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re vaccination.
By Dispensary Staff ...	123	5,899	123	5,899	95·58	86·35
By private Medical Practitioners ...	18	79	18	79	100·00	100·00
By Railway Dispensaries ...	240	839	240	839	96·53	78·55
Total ...	381	6,817	381	6,817	96·39	85·58
GRAND TOTAL ...	145,493	63,680	145,505	63,680	99·86	24·84

Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Ratio of successful vaccinations per 1,000 of population.	Number of all successful vaccinations performed.	Total cost of Department.	Average cost of each successful case.
Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One and under six years.				
...	...	2	...	...	5,170	Rs. a. p. ...	...
...	...	14	3	...	68	...	...
...	...	140	48	...	781	...	...
...	...	156	51	...	6,019	...	...
92	2,274	71,753	57,499	37·14	144,351	...	...

APPENDIX

Vaccination

Statement No. II, showing the number of persons primarily vaccinated in each of the

Establishments.	PERSONS PRIMARILY								
	Total	Number	Total	Number	Total	Number	Total	Number	Total
	Number.	success- fully vacci- nated.	Number.	success- fully vacci- nated.	Number.	success- fully vacci- nated.	Number.	success- fully vacci- nated.	number
	YEARS ENDED								
	1931-32.		1932-33.		1933-34.		1934-35.		1935-
Government ...	...	...	...	...	...	...	...	...	...
Municipality ...	18,431	15,463	21,469	17,558	19,004	15,180	21,334	17,791	22,395
Local Funds ...	87,024	80,316	94,804	89,650	88,707	83,569	90,698	84,656	96,412
Cantonment ...	118	116	91	91	62	62	139	139	60
Native States ...	5,649	5,502	6,352	6,215	6,579	6,459	6,406	6,257	...
Dispensaries ...	771	606	1,747	1,398	841	620	334	276	521
Army ...	...	...	...	...	...	...	...	...	...
Europeans ...	...	...	...	...	...	...	...	...	...
Natives ...	...	...	...	...	...	...	...	...	...
Total ...	1,11,993	1,02,003	1,24,463	1,14,912	1,15,193	1,05,890	1,18,911	1,09,119	1,19,388

NOTE.—Only the actual number of persons vaccinated and not the number of operations is to be

No.

Station

Date of despatch—

No. IV.

Return.

vaccinated and the number of those persons who were successfully undermentioned official years.

VACCINATED.

Number success- fully vacci- nated.	Total Number.	Number success- fully vacci- nated.	Total Number.	Number success- fully vacci- nated.	Total Number.	Number success- fully vacci- nated.	Total Number.	Number success- fully vacci- nated.	Total Number.	Number success- fully vacci- nated.
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ON 31st MARCH.

36.	1936-37.		1937-38.		1938-39.		1939-40.		1940-41.	
...
18,926	22,986	20,775	30,684	28,699	27,395	26,228	30,662	29,007	27,010	25,286
89,763	1,00,045	93,120	1,07,655	99,071	1,08,846	1,00,218	1,11,584	1,02,538	1,17,899	1,09,170
60	131	121	198	161	226	221	162	140	203	157
...
455	499	461	683	510	494	425	798	445	381	320
...
...
...
1,09,209	1,23,661	1,14,477	1,39,220	1,28,441	1,36,961	1,27,092	1,43,206	1,32,130	1,45,493	1,34,933

shown. Re-vaccinations are to be wholly excluded from the statement.

Assistant Director of Public Health

