Punjab Public Heath Report for 1922.

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REPORT

ON THE

Public Health Administration of the Punjab

AND

Proceedings of the Sanitary Board

FOR THE YEAR 1922

BY

LIEUTENANT-COLONEL W. H. C. FORSTER, D.P.H., I.M.S.,
Director of Public Health, Punjab

AND

The Report on Sanitary Works for 1922

BY

MR. A. R. ASTBURY,
Sanitary Engineer, Punjab.

Lahore :
PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRINTING, PUNJAB.
1923.

Section II.—European Army.

No remarks.

Section III.—Native Army.

No remarks.

Section IV —Jails.

No remarks.

Section VII.—Vaccination.

(Separate report.)

Section VIII —Sanitary Works, Military.

No remarks.

(The text of the Public Health Report is limited to 20 pages and that of the Sanitary Engineer to 4 pages.)

TABLE OF CONTENTS.

Proceedings of the Punjab Government (Ministry of Education) in the Home (Medical and Sanitary) Department, No. 20204, dated 9th August 1923.

READ—

Report on the Public Health Administration of the Punjab for the year 1922.

REMARKS—

THE year 1922 was an exceptionally healthy one in the Punjab. From the economic point of view meteorological conditions were favourable; rainfall was timely; harvests were, on the whole, good; and the prices of food-grains were lower than those prevailing in 1921. No evidence is available as to changes in the wages of labour, but it is probable that the general level of prosperity was higher than in the preceding year.

The effect upon the health of the population of slight fluctuations in the standard of living, which are common enough in an agricultural country, is probably not considerable. What is more important in considering the Public Health Report for 1922 is that the conditions which favoured the agriculturist were at the same time unfavourable to the spread of disease in an epidemic form. The only epidemic disease which assumed alarming proportions during 1922 was plague, which caused 7,837 deaths as against 2,896 in 1921. Even so, the outbreak was considerably less severe than that of 1919 when the number of deaths from plague approached 13,000. Cholera appeared only in a very mild form, and was responsible only for 128 deaths as against 19,215 in the preceding year. The low mortality from cholera is the more remarkable in view of the fact that cases were reported from thirty-three centres in sixteen districts. Of these centres twenty-eight were infected, directly or indirectly, by cases imported from outside the Province. The remaining five outbreaks were undoubtedly of indigenous origin, and the Director of Public Health considers that it is now definitely proved that although infection is more likely to start from imported cases, the cholera carrier exists in the Punjab, and is capable of starting a purely indigenous focus of infection. The most dangerous outbreak of cholera which occurred during the year was among the pilgrims at the Sun-eclipse fair at Thanesar. The number of pilgrims present at the fair was estimated at 500,000, and it is greatly to the credit of the Public Health Department that the outbreak was stamped out with a loss of only eight lives. The mortality from fevers was, as usual, high, though there was a great decrease in the number of deaths reported as against the preceding year. Relapsing fever appeared in several districts, and though not responsible for many deaths, has given rise to considerable discussion. Measures are being taken for the early diagnosis and treatment of this disease. The number of deaths from small-pox fell from 4,575 in 1921 to 1,608 in the year under report. The figures for the years 1867—1921 disclose a general tendency towards a decrease in the virulence of small-pox—a result which can fairly be attributed to the preventive measures consistently applied to the disease by the Public Health Department.

The total death-rate from all causes during 1922 was 22·07, a figure lower than any reported since 1878, and considerably lower than the figure for 1921 (30·1) and the "quinquennial average" (39·2). Only two provinces Madras and the North-West Frontier Province, reported a lower death-rate for the year. The birth rate was 39·2, showing a decrease of 2·2 *per mille* as against the figures for 1921, and 0·7 as against the quinquennial average. In spite of this slight decrease the Punjab still shows a higher birth-rate than any other province.

A very interesting feature of the report is the use which has been made of the statistical material collected by the Superintendent of Census Operations in the Punjab, Mr. Jacob. Mr. Jacob worked in close co-operation with the Director of Public Health, and has prepared a number of graphs,

which are appended to the report and will be available as the basis of future investigations. The graphs for cholera (appendix F of the report), for the test period 1867—1921, are being examined with a view to ascertaining the factors necessary to the epidemic spread of cholera in the Punjab, which are at present unknown.

With especial reference to the graph for the general death-rate for the years 1867—1921, the Director of Public Health makes certain remarks which bear upon the policy of the Punjab Government towards medical organisation in the province. Mr. Jacob's examination of the statistics showed that whether from physiological causes or owing to an improvement in the reporting agency, the general death-rate rose gradually from 1867 to 1890 ; from 1890 to 1921 it remained on the whole fairly stationary, though there was exceptionally heavy mortality in certain years. The Director of Public Health considers that the graph for the Punjab is unsatisfactory and compares unfavourably with the similar graph for England and Wales, which shows a steady decrease in the death-rate from 1875 onwards. He believes that the difference between the two curves is due to the introduction in England, in 1875, of a policy of State organised Preventive Medicine, which has been gradually extended and improved, to the almost entire exclusion of the "curative organization." The Director's argument neglects the exceptional conditions in the Punjab, where the allopathic system of medicine has not yet gained sufficient foothold among the masses to stand without the support of Government. The argument also leaves out of account the great social and economic forces that have been at work in England after the passing of the Representation of the Peoples Act of 1867, above all the spread of mass education, and the rise in the standard of living among the working classes. This Government therefore, while recognising the prime importance of expanding the Public Health Department, do not accept the suggestion that this expansion should be effected at the expense of the "curative organization."

During 1922, certain difficulties were experienced in co-ordinating the activities of the Public Health Department and the Medical Department proper. These difficulties were apparent in districts in which relapsing fever appeared. The Director of Public Health complains that reports of the appearance of this disease were not sent in punctually, and that the diagnosis made by District Medical officers was in some cases faulty. This Government believe that the relations between the various members of the two departments are insufficiently defined, and are now considering a scheme which, it is hoped, will ensure more harmonious working in future.

The details of the administration of the Public Health Department during 1922 call for little comment, as the reorganisation scheme, which involves changes both in composition and nomenclature, was not introduced until 1923. Progress has been made with the organisation of Maternity and Infant welfare work under the auspices of the Lady Chelmsford League.

The thanks of this Government are again due to Colonel Forster, who held charge of the office of Director of Public Health throughout the year under report, and to the staff of the Department. In particular they record their appreciation of the work of Lieutenant-Colonel Gill whose investigations on the forecasting of malaria were valuable, and of Khan Bahadur Dr. K. A. Rahman who throughout the year held double charge of the offices of Assistant Director of Public Health, Southern Range, and Chief Plague Medical Officer.

ORDER.—Ordered that a copy of the foregoing remarks be circulated with the report and be furnished with the usual number of copies of the report to the Government of India, also that the review be published in the *Punjab Government Gazette*.

Ordered also that a copy be furnished to the Director of Public Health, Punjab, for information.

By order of the Punjab Government (Ministry of Education).

FAZL-I-HUSAIN, *Minister for Education.*

A. LATIFI, *Secretary to Government, Punjab, Transferred Departments.*

511 CS—416—13-8-23 SGPP Lahore

ERRATA.

Annual Public Health Report of the Punjab for 1922.

1. *For* $7\frac{31}{16}$ in line 10 of paragraph 2, page 1, *read* $7\frac{13}{16}$.

2. In line 7 of paragraph 24, page 10, *for* 315 *read* 330.

3. Annual Form No. II, column 7, against Gujrat *for* 324043 *read* 824046.

4. Annual Form No. II, column 17, against Lyallpur *for* 12·1 *read* 11·6.

5. Annual Form No. III, column 15, against Ratio of deaths *for* ·07 *read* 22·07.

6. Annual Form No. IV, column 26, against Rohtak *for* nil *read* 1.

7. Annual Form No. IV, column 30, against Lyallpur *for* 3 4 *read* 394.

8. Annual Form No. IV, column 78, against Attock *for* 832 *read* 382.

9. Annual Form No. IV, column 111, against Ratio per 1,000 *for* 232 *read* 52·32.

10. Annual Form No. IV, column 124, against Multan *for* 5 *read* 4.

11. Annual Form No. VI, column 15, against Multan *for* nil *read* 1.

12. Annual Form No. VI, column 31, against Montgomery *for* 31·35 *read* 31·42.

13. Annual Form No. VI, Rohtak District, against Sonepat town column 20 *for* 144 *read* 114.

14. Annual Form No. VI, Gurgaon District, against Palwal town column 7 *for* 51·36 *read* 51·86.

15. Annual Form No. VI, Lahore District, against Baghbanpura Bhogiwal town column 25 *for* 1·39 *read* 16·39.

16. Annual Form No. VIII, column 7, against Montgomery *for* nil *read* 5.

17. Annual Form No. X, column 4, against Simla *for* 31 *read* 3.

18. Annual Form No. XI, column 6, against Total for the Province *for* 12847 *read* 11847.

19. Annual Form No. XII, column 22, against Lahore *for* 0·020 *read* 0·02.

20. Annual Form No. XII, column 25, against Total for the Province *for* 1·2 *read* 1·21.

21. Statement No. I, column 12, against Gujranwala *for* 0·2 *read* 2·02.

22. Statement No. I, column 6, against Shahpur *for* 08 *read* 108.

23. Statement No. I, column 27, against Grand Total *for* 11169 *read* 11171.

30 D of P H—326—2-8-23—SGPP Lahore.

Section I.

Chief meteorological features.

THE following brief summary of the chief meteorological features of the Punjab during the year 1922 was supplied by the Director-General of Observatories.

Rainfall was in moderate to large defect throughout the Punjab in the first five months of the year ; the deficieney was over 50 per cent. except in January in the east and north Punjab and in May in the south-west Punjab ; March was the driest month, less than ten per cent. of the normal being received over the whole province. Western disturbances passing across the extreme north drew the monsoon temporarily into the Punjab early in June and again on the 22nd, 27th and 28th. Widespread rain fell on these occasions, and the total rainfall of June was above normal by 23 per cent. in the east and north Punjab and 76 per cent. in the south-west Punjab. In the first half of July the monsoon was very weak, but improved in the second half ; the total fall of the month was nearly normal in the east and north Punjab, but in defect by 39 per cent. in the south-west. A well marked break prevailed over the greater part of the Punjab plains between the 6th and 18th August, and the rainfall of that month was generally in moderate defect. In September the monsoon was unusually active and more than twice the normal fall was received in both the south-west and the east and north Punjab. October was rainless in the east and north Punjab, but under the influence of early winter disturbances the south-west Punjab had 0·3″ in place of a normal of 0·1″. November was dry throughout the province ; in December on the other hand there was abundant rain over the whole province, the excess being 150 per cent. in the east and north Punjab and 67 per cent. in the south-west.

Skies were less clouded than usual in February, March, July, August and November ; in June and September on the other hand cloud proportion was in excess. Humidity was in excess in January, June, September, October and December, but in defect from March to May. Maximum temperature was below normal in January, June, September, October and December, but above normal in February and March. Minimum temperature did not differ appreciably from the normal except in February and December when it was in slight excess.

Prices of food-grains.

2. The return supplied by the Director of Land Records, Punjab, shows that the average retail price of wheat during the year 1922 was $6\frac{5}{8}$ seers per rupee at, Ambala, $6\frac{3}{8}$ at Lahore, $6\frac{1}{16}$ at Rawalpindi and $6\frac{3}{4}$ at Multan.

The average rates of barley were $10\frac{11}{16}$ seers at Ambala, $9\frac{7}{16}$ at Lahore $10\frac{3}{8}$ at Rawalpindi and $10\frac{3}{16}$ at Multan ; that of jowar $8\frac{1}{2}$, $7\frac{7}{16}$, $8\frac{7}{16}$ and $9\frac{1}{4}$, respectively.

As regards bajra the average rates varied from $6\frac{3}{4}$ to $8\frac{7}{16}$ seers at the principal markets of Ambala, Lahore, Rawalpindi and Multan ; that of maize from $6\frac{5}{8}$ to $8\frac{3}{4}$ and of gram $7\frac{3}{16}$ to $8\frac{1}{16}$ seers per rupee.

Owing to timely rainfall, good crops and low demand, the prices were lower in 1922 than in the preceding year.

Wages of labour.

3. No data are available in the office of the Director of Land Records for determining the wages of labour during the year 1922. The Third Regular Survey of wages of the Punjab will be made next year.

Section V.—Vital Statistics.

Population.

4. The birth and death rates shown in this report have been calculated on a population of 20,517,606 according to the census of March 1921 which represents the total population of the province prepared according to the method described in the last report.

At the time of the regular census held on 18th March 1921 plague was prevalent in Multan City and Okara town and both these places were temporarily depopulated owing to numbers of the inhabitants taking up residence outside the urban areas. As it was desirable to ascertain the normal population of these towns a supplementary census was held on the 18th July 1921 under the orders of Government according to which the population of Multan City and Okara town was 89,162 and 4,975, respectively, which figures have been taken for the purpose of this report.

Another change which affected the population of the districts of Sheikhupura, Sialkot and Lyallpur was the transfer of certain areas from the Sialkot and Lyallpur Districts to that of Sheikhupura with effect from 1st April 1922 for administrative reasons. This change, however, did not affect the total population of the province.

The rough estimated population for the year under report prepared by adding births and subtracting deaths since the last census worked out to 21,045,083 (11,481,015 males and 9,564,068 females) as against the census population of 20,517,606 (11,204,834 and 9,312,772). Calculated on this estimated population the birth rate is 38·3, *i.e.*, 1·0 per mille less than the rate calculated on the census figures. The death rate is 21·5, *i.e.*, 0·6 less than the rate on the census figures In individual districts the birth and death rates calculated on the census figures were in excess except in the districts of Kangra and Rawalpindi, these being the districts in which the estimated population shows a reduction as compared with the census figures. Although there was a slight decrease in the estimated population of Simla the rates calculated on census figures however showed a nominal increase of 0·1.

In the last report reference was made to some of the statistics rendered available by the 1921 census. During the present year further advance was made in analysing and interpreting the statistics now available for the period 1867—1921. The statistical history of certain diseases for this period was under investigation by this Department but, on learning that Mr. S. M. Jacob, I.C.S., Census Superintendent, was willing to review the vital statistics for that period, independent work was discontinued, the Statistical Branch henceforth working in collaboration with Mr. Jacob. The line of investigation decided on was to examine the annual and seasonal death rates from all causes and from certain categories of diseases. In the case of seasonal death rates, the test period was divided into two periods :—

1867—1896 (30 years).

1897—1921 (25 years).

This division will enable successive groups of 30 years' statistics to be compared as the figures become available. Mr. Jacob's work will appear in full in the census report, but in this report free use has been made of blocks, graphs, and advance proofs which have been given to me. This is the first time the vital statistics of the province have been examined by a statistician of Mr. Jacob's eminence and I cannot too strongly express the gratitude of this Department for his invaluable work.

General summary.

5. The health of the province during the year under report was exceptionally good. The total death rate (22·67) from all causes was lower than it has been since 1878. Except plague which accounted for more deaths than in the previous year, no other cause of mortality shows an increase. The reduction in the death rate from fevers when compared with the last year is attributable to the absence of both malaria and influenza in an epidemic form.

Although this is satisfactory so far as the year under report is concerned, the investigation of the general death rate for the period 1867—1921 discloses a very unsatisfactory state of affairs. Mr. Jacob's report is as follows :—

" The general death rate, whether due to physiological causes or to a better reporting agency, rose, on the whole, from 1867—1890 ; since then it

appears to be on the whole fairly stationary though there was great mortality in 1908 and 1918."

It therefore must be admitted that such efforts as have been directed to that end during the past 55 years have failed to favourably influence the death rate, for we have a high stationary death rate subject to the most violent epidemic fluctuations. If the Punjab graph be compared with the corresponding graph for England and Wales the difference is as striking as it is instructive. From 1875 onwards the English curve shows a steady fall, the present death rate being almost a model one.

The explanation of the difference between the two curves is easily arrived at. In 1875 England introduced the policy of State Organised Preventive Medicine which she has been steadily perfecting ever since, and, until the introduction of the National Insurance Act, spent neither money nor effort on what is conventionally termed " Curative Medicine." Money and effort were directed entirely to Prevention, the existing model death rate being the result. The Punjab, on the other hand, until 1919 never had a definite, clear-cut policy of State Organised Preventive Medicine. Money was spent on emergency and panic measures to the detriment of sound principles as indicated in the 1919 report. But for practical purposes during the past 55 years money and effort have been directed mainly to Curative Medicine, the result being displayed in the graph. The result is one which requries the earnest consideration of Government. If any improvement in the vital statistics is to be obtained the Preventive organisation will have to be expanded, such expansion of necessity connoting a corresponding curtailment of expenditure on the Curative organisation. No country could possibly afford to maintain a Curative organisation on the existing basis and at the same time maintain the Preventive organisation necessary for the improvement of the health of the population.

6. **Births.**—The total number of births registered this year was 806,461 of which 425,984 were males and 380,477 females, the corresponding figures for last year being 851,602, 448,694 and 402,908. The provincial birth rate for the year 1922 was 39·3 per mille of the population, *i.e.*, 2·2 less than it was in the previous year, and 0·7 less than the mean of the previous five years.

Annual Form No. I.

A comparison of the birth rates by districts with their quinquennial averages shows an increase in the districts of Gurgaon, Simla, Ludhiana, Lahore, Amritsar, Gurdaspur, Sialkot, Gujranwala, Sheikhupura, Montgomery, Lyallpur, Jhang, Multan and Dera Ghazi Khan. In the districts with a decreased rate, Hissar shows the greatest decrease 7·5, followed by Attock 7·3, Rawalpindi 5·8 and Karnal 5·5.

The birth rates when compared with the previous year show a decrease in all the districts except Rohtak, Gurgaon, Simla, Montgomery, Lyallpur and Dera Ghazi Khan. Of the districts with low birth rates, Rawalpindi showed the greatest fall (7·3), Attock coming next with a decrease of 7·1 and Muzaffargarh with 6·2. In the Rawalpindi District the decrease in the number of births is attributed to the abnormal prevalence of malarial fevers in the last quarter of 1921, while in the Hissar, Muzaffargarh and Attock Districts it is attributed to scarcity of fodder and consequent migration of masses from place to place in search of pasture, coupled with the unusually high prices of all articles of food during 1921 and during the first quarter of 1922.

It is necessary to note that in the districts of Sheikhupura and Lyallpur the total number of births recorded during the year under report amount to 22,999 and 45,977, respectively, *i.e.*, an increase of 2,993 in the former and a decrease of 1,710 in the latter when compared with the figures for the last year. But the birth rates of these two districts when compared with those of last year show a decrease in the case of Sheikhupura and an increase in that of Lyallpur which is due to the calculation of the ratios on different populations.

7. Like last year the Punjab again shows the highest birth rate 39·31, the Central Provinces coming next with 35·80. The rate in other provinces was as follows :—

Birth rates of other provinces.

Bihar and Orissa	35·03
Bombay	32·39
United Provinces	32·17
Madras	30·0
Burma	29·69
Assam	28·43
Bengal	27·4
N.-W. F. Province	23·69

8. The birth rate in the 45 towns which have a population of 10,000 and upwards amounted to 40·0 per mille as contrasted with 46·7 in the year before and 44·8 the average for the previous five years. The rates in the three largest towns were as follows :—

Birth rate in towns.

Amritsar 47

Multan 43

Lahore 34

the corresponding rates for last year being 48, 52 and 34.

9. Lyallpur again recorded the highest birth rate 49·1 against 48·7 last year; and next in order come Amritsar 46·9, Gurgaon 46·6, Sialkot 45·7 and Gurdaspur 45·5. The lowest rate as usual was recorded in Simla (21·0), Attock coming next with 28·4, Muzaffargarh with 28·8 and Rawalpindi with 30·1. In the remaining districts it varied from 31·3 in Dera Ghazi Khan to 44·1 in Rohtak. Of the 29 districts in the province 12 had a birth rate higher than the provincial rate of 39·3.

Highest and lowest birth rates. Annual Form No. I.

10. The provincial excess of births over deaths per 1,000 of population stood at 17·2 as compared with 11·4 in 1921. Nearly every district in the province manifested an excess, being most marked in Lyallpur (31·1), Montgomery (23·8), Amritsar (23·0), Sialkot and Multan (22·5), Gujranwala (22·4) and Gurdaspur (22·2). In the other districts it varied from 21·9 in Jhang to 1·4 in Simla.

Excess of births over deaths. Annual Form No. I.

The male birth rate which is 20·8 is 2·3 in excess of the female rate, the same as in the previous year. The number of male births exceeded the female births by 45,507 as against 45,786 last year.

11. **Deaths.**—The total number of deaths registered during the year was 452,807, of which 241,236 were males and 211,571 females, the resulting rates being 22·1, 21·5 and 22·7. The corresponding rates for the previous year were 30·1, 29·7 and 30·6 and the averages for the last five years 39·2, 37·4 and 41·2. Of the provincial death rate (22·1) 15·0 was attributable to fevers, 4·1 to all other causes, 2·0 to respiratory diseases, 0·4 to plague, 0·3 to dysentery and diarrhœa and injuries, 0·1 to small-pox and 0·01 to cholera. Compared with the quinquennial average, the total death rate in 1922 showed a decrease of 17·1 per mille and of 8·0 when compared with the ratio for the previous year. The decrease is due to the lessened incidence under all the heads of mortality except plague.

Annual Form No. II.

12. During the year under report the Punjab stood eighth in the list of Indian provinces as regards the death rate with 22·07 per mille against a maximum of 29·31 reported from the Central Provinces. The rate in other provinces was as follows :—

Death rates in other provinces.

Assam	26·85	Bombay	23·61
Bengal	25·2	Burma	22·23
United Provinces ...	25·01	North-West Frontier Province	21·68
Bihar and Orissa ...	24·13	Madras	21·0

13. The provincial death rate of 22·1 was exceeded in 15 districts, namely Karnal in which it was 30·8, Gurgaon 27·0, Ambala 26·7, Kangra 26·6, Rawalpindi 25·2, Mianwali 24·0, Amritsar 23·9, Gurdaspur and Jhelum 23·3, Rohtak and Sialkot 23·2, Lahore 23·1, Hissar 22·7, Ludhiana 22·6 and Ferozepore 22·2. The increase in the death rate in these districts was chiefly due to fevers, all other causes and respiratory diseases, though in the Ludhiana and Jhelum Districts plague helped to swell the death rate.

Deaths by districts. Annual Form No. II.

Among the districts which recorded a rate lower than the provincial death rate were Montgomery 15·2, Sheikhupura 15·4, Multan 16·8 and in the remaining districts the rate ranged between 18·0 to 21·8.

14. The provincial death rate in January was 1·75. It fell to 1·42 in February which was the healthiest month during the year under review. The curve then rose to 1·51 in March, to 1·53 in April, to 1·93 in May and 1·95 in June. It fell to 1·57 in July but rose again in August (1·59). The rise continued in September (1·75), October (2·31) and November (2·47) when the highest monthly rate was recorded. A slight fall was noticed in December, the rate being 2·30.

Seasonal mortality. Annual Form No. III.

The quarterly death rate was January—March 4·68, April—June 5·41, July—September 4·91, October—December 7·08.

15. As the population for the age groups under one year is not available, only absolute numbers for the following first 3 periods can be considered :—

Death rates according to different age periods. Annual Form No. IV.

(1) Not exceeding one month.
(2) Over One month and not exceeding six months.
(3) Over six months and under twelve months

Deaths ~~under~~ one month by sex, district and class.—The total mortality for this group was 62,800 (33,734 males and 29,066 females) being most marked in the districts of Amritsar 4,088, Jullundur 3,964, Ferozepore 3,815, Lahore 3,674 and Lyallpur 3,444.

Among Muhammadans the number of deaths reported was 19,036 males and 15,983 females ; Hindus 14,299 and 12,814 ; Indian Christians 284 and 187 ; and other classes 115 and 82, respectively.

Over *One month and not exceeding six months by sex, district and class.*—The total mortality amounted to 37,452 (20,064 males and 17,388 females), the figures for districts recording the highest number of deaths being Karnal 3,147, Lahore 2,034, Lyallpur 1,808, Ferozepore 1,747, Amritsar 1,710 and Hoshiarpur 1,709.

Among Muhammadans the number of deaths reported was males 11,172 and females 9,773 ; Hindus males 8,639 and females 7,399 ; Indian Christians males 205 and females 174 ; and other classes 48 males and 42 females.

Over six months and under twelve months by sex, district and class.—The total mortality amounted to 34,227 (18,441 males and 15,786 females), the districts of Lahore, Ferozepore, Gurdaspur and Kangra being responsible for the largest number of deaths, *viz.*, 2,217, 1,854, 1,830 and 1,808, respectively.

Among Muhammadans the number of deaths reported was 9,495 males and 8,508 females ; Hindus 8,717 and 7,079 ; Indian Christians 184 and 155 ; and other classes 45 and 44, respectively.

Infants under one year.—The total mortality in this group was 134,479 showing a decrease of 28,697 when compared with the figures for the last year. The total death rate for this group is 161·35 as compared with 195·78 for 1921 and 211·23 for the previous five years. Calculated on the total number of births during the year the mortality rates are 169·58 for males and 163·58 for females as compared with 195·51 and 187·27 in 1921. Classified according to communities the highest death rate in this group was recorded as usual under "Other Classes" the rates being 4,000·00 for males and 8,400·00 for females; Hindus come next with 179·59 and 161·89; Muhammadans 165·33 and 147·28; and Indian Christians 89·57 and 71·26.

Among the different age periods the rate of mortality was as under:—

Ages.	*Males.*	*Females.*
Under one year	169·99	152·37
1 and under 5 years	39·57	38·02
5 „ 10 „	7·43	7·76
10 „ 15 „	6·51	8·18
15 „ 20 „	7·60	10·03
20 „ 30 „	7·88	10·02
30 „ 40 „	9·83	11·76
40 „ 50 „	14·75	14·72
50 „ 60 „	21·09	20·30
60 and upwards	50·41	52·06

A comparison of the figures cited in the above table with those given in last year's report shows that the death rate under every group was lower than that for the preceding year. The female death rate under the groups 5—10 to 30—40, and 60 and upwards, exceeded that of males.

Deaths by classes. Annual Form No. IV.

16. According to classes the death rate in order of low mortality was among Indian Christians 16·19 males and 16·05 females; Muhammadans 21·27 and 21·89; Hindus 21·98 and 23·95; and other classes 37·75 and 76·15.

Deaths in towns and rural circles. Annual Form No. VI-A and B.

17. The urban rate was 24·97 and the rural rate 21·74 as against 33·46 and 29·76, respectively, last year, the average for the preceding five years being 37·59 and 39·28. The urban rate was in excess of the rural rate under all the heads of mortality except fevers under which the excess (3·16) of the rural rate over the urban is probably due to relapsing fever which causes a higher mortality in rural areas than in towns. The rates recorded in the three largest towns were Amritsar 29·78, Lahore 26·35 and Multan 23·77. These rates are considerably lower than the rates recorded in the previous year and the average for the preceding five years, due to lessened mortality from epidemic diseases.

In the minor towns the highest rate was recorded in Khudian 66·99; the others *seriatim* were Jamke 54·68, Dinga 53·71, Jhelum 39·94, Chakwal 39·33, Wazirabad 38·46, Karnal 38·30, Karor 36·45, Kalabagh 36·07, Jagadhri 35·60 and Bhera 35·47. The high death rates of these towns is attributable to fevers in the case of Khudian, Karnal, Karor, Kalabagh and Jagadhri and in the case of others to plague.

The lowest rates were recorded in Sangla 1·85, Chuharkana 2·34, Gidharbaha 3·09, Okara 4·82, Lyallpur 7·53 and Ichhra 8·09. In all these the mortality from fever was comparatively low and in most of them no death from any epidemic disease was reported during the year.

Inspection of birth and death registers.

18. Compared with last year there has been a decrease of 102,758 in the total number of entries checked, the actual numbers checked were 695,128 in the birth and 442,122 in the death registers. The decrease is due to the abolition during the year under report of the posts of Divisional Inspectors, who were partly responsible for the inspection of such registers. The percentage of omissions detected to total number of entries checked by Divisional Inspectors worked out 0·95 male and 1·09 female births, 0·87 and 0·98 for male and female deaths, those checked by Superintendents of Vaccination and Vaccinators at 1·81 and 1·72 for male and female births and 0·95 and 1·03 for deaths. The revenue staff detected omissions at the rate of 1·20 and 0·96 among births and 1·12 and 1·04 among deaths.

The number of chaukidars punished for neglecting to report cases of domestic occurrence was 26, the total fines amounting to Rs. 23. In municipal towns 142 persons were punished for neglecting to register births and 138 for neglecting to register deaths, the total fines amounting to Rs. 274.

The districts of Mianwali, Montgomery, Karnal, and Gujrat were the worst offenders in the matter of registration.

Births and deaths among employees of railway stations.

19. At railway stations outside municipal limits 25 births and 12 deaths were recorded during the year under report as against 18 and 14, respectively, in the previous year. Of the 12 deaths fevers accounted for 6, respiratory diseases 4, "dysentery and diarrhoea" and "all other causes" 1 each.

Births and deaths among Europeans and Anglo-Indians.

20. There were 423 births and 172 deaths among Europeans and Anglo-Indians during the year under report as against 303 and 214, respectively, last year. The deaths were distributed as follows :—

All other causes ...	81	Dysentery and diarrhœa ...	9
Fevers	57	Small-pox	2
Diseases of the respiratory organs	22	Cholera	1

Births and deaths among non-military population of cantonments. Appendix to Annual Form VI-B.

21. There were 3,724 births and 2,598 deaths among the non-military population of cantonments, showing a decrease of 165 in the former and 1,317 in the latter compared with the previous year. The deaths were classified as follows :—

Fevers	1,355	Injuries	34
All other causes ...	824	Plague	19
Respiratory diseases ...	259	Cholera	4
Dysentery and diarrhœa ...	101	Small-pox	2

Section VI.—Chief Diseases.

Annual From No. VII.

22. **Cholera.**—Cholera appeared in a very mild form during the year under report, accounting in all for 128 deaths as against 19,215 in the previous year the mortality rate being 0·01 per mille as compared with 0·94 in 1922 and 0·29, the average for the previous five years

The number of districts infected was 16, *viz.*, Karnal, Ambala, Hoshiarpur, Ludhiana, Ferozepore, Lahore, Amritsar, Gujranwala, Gujrat, Jhelum, Rawalpindi, Attock, Rohtak, Gurgaon, Simla and Jullundur. Of these the only district in which the disease appeared in an epidemic form was Ambala where the total mortality recorded was 78, isolated cases occurring in the remaining 15 but in none of these did the number of deaths exceed 8, except in Ludhiana where the number recorded was 12.

Except for a non-fatal case which was reported during March from Murree town, the province was free from the disease for the first 5 months of the year. The non-fatal case referred to was a doubtful one and, though the Sub-Assistant Surgeon persisted in his diagnosis, it may be left out of account.

Properly speaking, therefore, the first case of cholera occurred on the 6th June in Lahore town. Of the five deaths recorded in Lahore town two were imported from Hardwar. The next district to be infected was Ludhiana, where 22 cases and 12 deaths were registered. Of the 12 deaths Ludhiana town accounted for 6, Jangpur (Jagraon Tahsil) 1, Dhilon 1, and Gurm (Ludhiana Tahsil) 5. Of the eight cases registered in Ludhiana town, six were imported from Hardwar and one from Thanesar, and of the 12 cases recorded in Gurm, one was imported from Thanesar and 11 were indigenous. The first case which occurred on 13th June in Ludhiana town came from village Bilga but the source of infection could not be traced. Ambala District where the disease assumed epidemic proportions followed next and it was in this district that the largest numer of deaths occurred, *viz.*, 78. The first case which ccurred on the 14th June was reported from Akalgarh tahsil to which infec-in was conveyed from Jagon in Bilaspur State (Simla Hills). Of the 78

deaths registered, Saifulpur and Akalgarh accounted for 55 and Khuda Ali Sher 23. There was only one imported case from Hardwar which occurred in Ambala City.

Simla reported three cases and two deaths, all three cases being imported from Hardwar. The first case occurred on 16th June and the prompt and effective measures taken by the Health Officer prevented the disease from spreading.

A sharp but short outbreak of cholera occurred among the pilgrims at the Sun Eclipse Fair at Thanesar. Altogether there were 16 cases and 8 deaths. The first case, an imported one from Hardwar, occurred on the 21st September. This was a woman of Almora, aged 68 years, who came to Thanesar from Hardwar and who, within 24 hours of her arrival, developed cholera on the morning of the 21st September. Her case was brought to the notice of the Medical authorities on the evening of the 21st when she was immediately admitted to the Isolation Hospital.

It is estimated that about 5 lakhs of pilgrims attended the Sun Eclipse Fair and considering the vast concourse the occurrence of only 16 cases and 8 deaths speaks highly for the very efficient and elaborate arrangements made by the Public Health Department to meet all contingencies.

After the dispersal of the pilgrims one case and one death occurred in Karnal and Panipat but otherwise there was no spread of the disease in consequence of this fair.

1922 was a good year for the study of certain points in the epidemiology and prevention of cholera. In previous reports I have stressed two points :—

(1) Infection is annually imported to a fairly large number of centres.

(2) Thereafter the sequence of events depends on whether the factors necessary for epidemic spread are operative.

In 1922 cholera was reported from 33 centres, 28 of which were infected, directly or indirectly, from extraneous sources. In the case of the remaining centres however, the outbreak was unquestionably of indigenous origin. It must therefore be accepted that the cholera carrier exists in the Punjab and is capable of starting a purely indigenous focus of infection. The indigenous carrier, however, is of secondary importance to the imported case.

These 33 centres were responsible for only 123 deaths, so it may be assumed that the general factors necessary for epidemic spread were not operative. For example if the Sun Eclipse Fair had occurred in 1921 we should not have escaped with 16 cases and 8 deaths. Metaphorically speaking the grass was damp and failed to respond to the 33 matches applied at various points.

Apart from the fact that general favourable factors were not operative, it is worthy of note that the only semi-epidemic spread from a centre occurred in an area not controlled by a qualified Health Officer. Most of the outbreaks occurred in urban and rural areas controlled by Health Officers who were fore-armed with the scheme drawn up at the Conference of Health Officers and by the prompt application of which the outbreak in each case was quickly suppressed. The scheme, however, requires an intelligence system and personal supervision, conditions not obtainable in areas not controlled by Health Officers.

The general factors for the epidemic spread of cholera in the province are unknown and will probably only be discovered by a searching statistical investigation. As the result of Mr. Jacob's work we now have both the annual and seasonal graphs of cholera for the test period 1867—1921. The work of corelating certain general factors—rainfall, temperature, etc.—to these graphs will be proceeded with as circumstances permit. The statistics so far investigated also disclose the interesting fact that cholera causes a much

greater mortality in towns than in villages. The relative rates per mille are —

Rural areas	0·30
Towns	0·56

Out of 39 years, the rural areas had a greater cholera mortality in only seven years.

This fact will necessitate the investigation of the statistical history of the individual towns in order to determine the possible association of the water supply with this particular distribution of cholera mortality.

23. **Small pox.**—The number of deaths reported from small-pox fell from 4,575 in 1,921 to 1,608 in 1,922, showing a decrease of 2,967 when compared with the figures for the last year. The mortality rate was 0·08 per mille as against 0·22 in the last year and 0·33 for the previous five years. From January, in which month 148 deaths were registered, the disease began to show signs of abating and the number of deaths fell to 92 in February, 87 in March and 80 in April. The mortality then rose to 182 in May and thereafter it began to decline, the number of deaths being 176 in June, 156 in July, 113 in August, 77 in September and 68 in October. It rose again to 136 in November. The rise continued in December (293) when the highest number of deaths was recorded. The highest death rate from small-pox was recorded in Gujranwala 0·37, Lahore coming next with 0·33, Multan 0·16, Hoshiarpur 0·13, Amritsar and Lyallpur 0·12 each, and Sialkot and Sheikhupura 0·10 each. In the remaining districts it was below the provincial rate of 0·08. The lowest rate recorded was 0·002 in Karnal and Ambala, while Simla remained quite free from the disease during the year.

Annual Form No. VIII.

Of the deaths registered from small-pox 505 were under one year of age and 747 in the group "1 — 10 years" as against 1,274 and 2,132, respectively, in the previous year. The proportion of male to female deaths was nearly equal as was the case in the previous year, the rates in 1922 being 0·07 in the case of males and 0·08 in that of females as against 0·22 and 0·23 in the preceding year.

The death rate from small-pox in urban areas was 0·32 as compared with 0·05 in rural circles and the average rate for towns in which the compulsory Vaccination Act is in force was 0·35 as against 0·34 for the previous year.

Of the 156 towns 114 escaped the disease and in the remaining a total of 659 deaths was registered as against 652 in the previous year. The death rate from small-pox was highest in Firozpur 7·05, Gujranwala coming next with 4·20, Sahowala 2·64, Kila Didar Singh 1·57, Baghbanpura Bhogiwal 1·46. Amongst the largest towns of the province Lahore headed the list this year with a death rate of 1·11, Multan and Amritsar coming next with 0·41 and 0·10, the corresponding figures for the previous year for these three towns being 0·11, 2·96 and 0·06.

Mr. Jacob's graphs for small-pox show :—

(1) There is a general trend in the direction of diminution throughout the period 1867—1921.

As small-pox is the only disease to which Preventive Measures have been consistently applied during that period the result is a credit to this Department.

(2) May is the month of maximum mortality, the seasonal curve in this respect agreeing with that of England. December is the month in which there is the greatest uncertainty as to an outbreak, and it may be noted that in the year under report the greatest mortality occurred in December.

(3) Small-pox causes 1½ times the proportionate number of deaths in towns that it does in villages. This is in keeping with the fact that vaccination is more efficiently carried out in the rural areas.

General.

24. **Plague.**—During the year under report there were 7,837 deaths from plague in the province (7,799 in British districts and 38 in Native States) as compared with 2,896 in the preceding year. The epidemic was of greater intensity than in the two previous years, but much less in severity than in the year 1919 when 12,683 deaths were recorded. The mortality for the districts most infected was Jullundur 315, Sialkot 826, Gujranwala 838, Sheikhupura 753, Gujrat 1,300, Shahpur 1,165, Jhelum 1,474, Rawalpindi 410 and Lyallpur 299. The districts which enjoyed absolute immunity from infection throughout the year were Hissar, Rohtak, Karnal, Ambala, Simla and Ferozepore. In this category the districts of Ludhiana and Dera Ghazi Khan may also be regarded as falling since only one imported case was reported from each of them. A few sporadic cases were reported from each of the districts of Hoshiarpur, Amritsar and Muzaffargarh.

Among the Native States only Patiala and Kapurthala were infected and returned 37 and 1 death, respectively.

The most noticeable feature in the history of the disease was the infection of Murree town during the year under report. All indications point to the infection being introduced from the plains by infected fleas or rats carried in carts loaded with grain, fruit, or vegetables. This outbreak, however, was a short lived one and was soon brought under control, being confined to a small area.

In this connection it may be noted that our hill stations have displayed a marked immunity to plague, Kasauli being the only other hill station definitely known to have suffered from an outbreak of the disease. This occurred in 1904, was relatively severe, and as in the case of Murree occurred in the autumn. There has never been any recrudescence and judging by analogy Murree is not likely to have any further trouble.

The severity of the epidemic is chiefly attributable to the heavy rains in the north-east and south-west of the Punjab during the month of December 1921 which afforded favourable conditions to flea breeding, and to the indifference shown by the people towards anti-plague measures in consequence of the mildness of the disease in the preceding two years.

Type of the disease.—The type of the disease was chiefly bubonic though small localised outbreaks of the pneumonic and septicaemic types also occurred in the districts of Gurdaspur, Sialkot, Gujrat, Shahpur and Rawalpindi.

Seasonal variations.—As usual the mortality rose steadily during the first four months of the year. It began to decline in May, fell rapidly in June, and completely subsided during the month of July. The province remained free of infection throughout the next two months. In October it reappeared in Sialkot and Lyallpur Districts and continued to increase till the end of the year.

Measures—Inoculation.—16,484 inoculations were performed as compared with 13,559 in the previous year. This measure is still resisted and people only submit to it after a good deal of tactful persuasion, or when the disease actually assumes epidemic proportions. It is satisfactory to record that in the towns the prejudice against this measure is gradually breaking down and people in large numbers readily submit to inoculation.

Evacuation.—As has often been pointed out this simple measure is seldom adopted in a sensible manner. On the outbreak of the disease people generally lock up their houses and go to adjoining or distant villages thus carrying infection to uninfected localities. Efforts made to discourage this mode of evacuation have not met with much success.

Education.—In the Ambala, Hoshiarpur, Jullundur and Ludhiana Districts systematic lectures in rural areas were delivered by the plague staff on the insanitary condition of the villages which is a predisposing cause to the spread of plague. These lectures have proved very useful and the sanitation in villages has been appreciably improved. In Hoshiarpur District these lectures were illustrated with lantern slides.

Rat Destruction.—A systematic anti-rat campaign by means of trapping, baiting and smoking operations was carried out in most of the districts throughout the year. During the quiescent period the villages infected at the end of the season and which had threatened to form foci for the recrudescence of the disease in the cold weather, were specially dealt with and efforts were concentrated on reducing as far as possible the endemic centres of the disease. In some districts these measures had to be abandoned on account of paucity of funds.

Attitude of the people—On the whole the attitude of the people towards anti-plague measures is improving and no serious objection is offered to baiting and trapping operations, while smoking of rat holes by Nim Battis is growing popular among the rural population.

Plague Inspection Posts.—The plague posts at Taradevi and Tutu in the Simla District were finally closed during the year and the buildings in which they were located were handed over to the Public Works Department. The disinfector and the shed in which it was housed were taken over by the Simla Municipality. These useless posts cost approximately Rs. 22,000 per annum and inflicted great inconvenience on the travelling public.

Staff.—This consisted in the beginning of the year of one Special Medical Officer, 16 Assistant Surgeons and 13 Plague Supervisors. Towards the close of the year however the strength of the former was reduced by 2, and the latter increased by 3. The general medical relief afforded by the Special Medical Staff during their tours increased from 26,906 patients treated in 1921 to 45,534 in 1922.

Annual Form No. IX.

25. **Fevers.**—There were 306,654 deaths registered under the head of fevers during the year under report, as against 423,162 in 1921 showing a decrease of 116,508. The death rate was 14·95 against 20·62 in the previous year and mean ratio for the last five years 28·83.

The unhealthiest month in respect of mortality from fever was November, 35,519 deaths having been registered in that month. The next worst was December with 32,941 deaths. October followed with 32,322, June with 28,860, May with 26,679, January with 24,601 and September with 23,227. The lowest mortality from this disease was recorded in February (19,401), April coming next with 19,715 deaths, March 20,245, August 21,044 and July 22,099.

Taking the mortality by districts the fever death rate in all the districts in the province was lower than that recorded in the previous year, and their respective quinquennial average. There were thirteen districts with a rate higher than the provincial rate (14·95), namely, Hissar 17·27, Rohtak 16·00, Gurgaon 15·81, Karnal 24·90, Kangra 16·79, Hoshiarpur 16·06, Ferozepore 15·22, Amritsar 16·10, Rawalpindi 16·29, Attock 16·48, Mianwali 19·08, Muzaffargarh 17·69 and Dera Ghazi Khan 18·53.

The highest death rate was recorded in Karnal 24·90, Mianwali 19·08, Dera Ghazi Khan 18·53, Muzaffargarh 17·69 and Hissar 17·27. The increased mortality from fever in these districts is attributable to misclassification of deaths from plague in Mianwali and most probably to relapsing fever in the Karnal, Dera Ghazi Khan, Muzaffargarh and Hissar Districts.

The urban and rural death rates from fevers were 12·10 and 15·26 compared with 16·38 and 21·09 in the previous year and 22·73 and 31·11 the quinquennial average. The three largest towns in the Punjab, Lahore, Amritsar and Multan recorded rates of 12·99, 14·55 and 8·86 as against 16·55, 21·38 and 15·77 in the previous year and 19·90, 24·05 and 20·65, the average for the previous five years. In the case of smaller towns, rates as high as 42·16 were recorded in Khudian, 23·14 in Kalabagh, 27·13 in Karor, 23·43 in Thanesar, 21·84 in Fazilka, 21·18 in Hodal, Karnal 20·97, Mian Channu 20·68, Mitranwali 20·46 and Bhera 20·32.

The lowest rates were recorded in Giddarbaha 0·77, Chukarkana Mandi 0·78, Sangla 1·34, Samundri 1·90, Khangah Dogran 2·50 and Nankana Sahib 2·64.

The low death rate from fevers is mainly due to the absence of epidemic malaria. In this connection I wish to refer to the work of Colonel Gill, I.M.S., Chief Malaria Medical Officer, on the forecasting of malaria. His first forecast was issued in 1921 and on the whole proved fairly successful. This particular forecast and the results have now been published in the Scientific Press. On the basis of his 1921 experience Colonel Gill has improved his method and the forecast for 1922 was a distinct advance on the first attempt. The method will have to stand the test of epidemic and semi-epidemic years before it can be finally appraised, but in the meantime steps are being taken to familiarise District Medical Officers of Health with it. If the method proves reliable these officers will then be in a position to prepare a timely forecast for their own districts.

Mr. Jacob's graphs for this mortality heading show :—

(1) Since 1885 the general tendency appears to be for a constancy of the death rate from fevers.

This I fear will continue to be the case until the Drainage Board has made headway with the projects that have been drawn up.

(2) The Seasonal curve shows two maxima. One in May—June, due chiefly to relapsing fever; the other in October-November, due to malaria.

26. **Influenza.**—There were 1,434 cases and 35 deaths recorded from influenza during the year under report. Of the deaths 13 were registered in the Simla Municipality, 6 in Palwal and 1 in Hodal town (Gurgaon District), 7 in Kulu Tahsil (Kangra District), 5 in Amritsar District, 2 in Rawalpindi town and 1 in Multan City.

In Simla a mild form of influenza with a low mortality was somewhat prevalent throughout the season. There were altogether 115 cases and 13 deaths. In the third quarter of the year there was an outbreak of broncho-pneumonia, possibly influenzal in origin, which affected a large number of Indian infants of the poorer classes.

In the Kangra District 914 cases and 7 deaths occurred from influenza during the year. Out of these, 14 cases with no death occurred in village Sujanpur of Hamirpur Tahsil and the rest in the Kulu Tahsil. The infection was of a mild type but its source could not be satisfactorily traced.

In Kulu there were two outbreaks, the first in May, June and July and the second in November. Altogether 52 villages were infected, 536 cases and 6 deaths occurred in May, 270 cases in June, 70 cases in July and 24 cases and 1 death in November. The infection in the case of Kulu was probably introduced from Central Asia and was spread by the small fairs being held at that time. Necessary medical help was rendered by the Medical Officer in charge and a vaccinator was also deputed to help in distributing medicines. Inoculation was offered but not accepted. The infection was of a mild type.

27. **Diphtheria.**—The disease was unusually prevalent in Simla during the year, 28 cases being reported of which 3 were fatal Fifteen of these cases occurred in Bishop Cotton's School, the remaining occurring sporadically in various parts of Simla, six of them being among Indians.

In connection with the outbreak at Bishop Cotton's School I made a special inspection of the premises assisted by Major Phipson, D.S.O., I.M.S., Health Officer, Simla, and Mr. W. E. Buchanan, Waterworks and Drainage Engineer, Simla. A report containing the result of the inspection was submitted to the Director of Public Instruction and remedial measures are now in progress. Major Phipson also carried out an exhaustive bacteriological investigation of the epidemic, the nett result of which was to confirm my previous impression that a bacteriological search for "carriers" is of little practical utility. A subsequent investigation carried out at the Central Research Institute, Kasauli, has gone further in demonstrating the inutility of a "carrier" search.

28. **Relapsing Fever.**—Relapsing fever in a mild epidemic form appeared in the early part of the year in four villages in the Hissar District. In all 150 cases and 75 deaths occurred and the disease died out after a short time without spreading to the other parts of the district.

The disease, also in a mild form, manifested itself in two villages of the Rawalpindi District where it was responsible for 104 cases and 35 deaths. Although the first case occurred on the 23rd October it was not until towards the end of the year that the Civil Surgeon received his first report of the prevalence of a fever showing all the symptoms of relapsing fever. An Assistant Surgeon was deputed to the infected villages who, after examination of the symptoms and of the blood films of the patients, confirmed the diagnosis.

In Muzaffargarh the disease appeared in a severe form, the initial history of the epidemic being characteristic. On 24th November the Civil Surgeon received information that an unusual type of fever with heavy mortality

was prevalent in the Kunjhar illaqa. The Sub-Assistant Surgeon deputed by him to investigate the nature of this fever reported it as influenza, and in December the Civil Surgeon reported an outbreak of influenza to this Department. On receipt of the mortality returns my suspicions were at once aroused. The Malaria Department was instructed to detail an officer to ascertain the real nature of the outbreak which statistically appeared to be one of relapsing fever. The report received showed that the fever was relapsing fever, that it had been prevalent since October, and that the district was widely infected.

The Assistant Director of Public Health, Southern Range, at once proceeded to the district with a staff of medical officers, compounders, sanitary inspectors, and vaccinators, and a supply of serbian barrel disinfectors. It was soon found that the epidemic was too widespread for much to be done in the way of prevention and consequently effort was mainly directed towards assisting the Medical Department in organising effective treatment of the sick by Novo-Arseno-Billon. By means of leaflets describing the specific nature of this treatment, propaganda by the staff, and actual demonstrations the treatment rapidly became so popular that the Medical tour Department was unable to cope with the demand.

The extreme poverty and filthiness of the people rendered disinfection over such a wide area extremely difficult. Most of the people had no clothes other than the vermin-infected rags they wore. The District Board and the Red Cross Association were indented on for blankets in which the people could be clothed whilst their own rags were being treated, but the supply forthcoming was lamentably deficient. At the close of the year the epidemic was in full progress with every prospect of a high mortality until checked by the onset of the hot weather.

The Muzaffargarh epidemic is illustrative of the difficulties we have to contend with. In this report I have repeatedly warned Medical Officers of the prevalence of the disease and the necessity for prompt recognition. In the Report for 1920 I also suggested to the Medical Department the adoption of a system of itinerating Medical Officers to give the arsenical treatment. In spite of these warnings the official Medical Officer still continues to diagnose relapsing fever as "influenza" or even "yellow fever."

If the disease can be diagnosed in an office hundreds of miles away on the basis of a fortnight's mortality returns it ought not to be difficult for the Medical Officer on the spot to recognise its real nature. Moreover, if in doubt, the Provincial Bacteriological Laboratory and the laboratories of this Department are always at his disposal. This Department can despatch an investigating officer at once on receipt of a telegram, but this special aid is seldom requisitioned. The proper remedy for this constantly recurring difficulty is a rapid expansion of the system of District Health Officers. If relapsing fever is detected early the chances of stamping it out at the commencement are very great. Gurgaon District used to be a hot bed of Relapsing Fever, but since the appointment of a District Health Officer the district has been almost freed of the disease.

29. **Typhoid and Typhus Fever.**—In the month of May it was reported that an epidemic fever was prevalent in a village near Serai Kala Railway Station in the Rawalpindi District. The Civil Surgeon himself visited the infected village. After a bacteriological examination of the blood of patients, the disease was pronounced to be typhus fever. There were altogether 20 cases and 10 deaths. The disease appears to have been introduced from the Hazara District. The Sub-Assistant Surgeon of the itinerating dispensary and the Assistant Surgeon on plague duty were deputed to the spot and every precaution was taken to check the spread of the disease with good results.

Early in November an outbreak of a curious fever in the village of Bajhole in the Bhajji State (Simla Hills) was reported by the Civil authorities. An officer was at once deputed to investigate, but by the time he was able to reach this remote place the outbreak had ceased and only a few convalescents remained. On clinical grounds the investigating officer declared the outbreak to be one of typhus fever and elucidated the following facts with regard to it.

(1) The disease was confined to a single family of lice-infested people living in the dirtiest surroundings and apart from the rest of the village.

(2) The family concerned were Doomnas, a caste concerned chiefly with the trade in limes.

(3) The disease was imported to Bajhole from Suni, the centre of the lime trade in Bhajji State.

(4) In its clinical aspects the disease was well known to the local Vaids, who call it "Chamarri" and are aware of its liability to spread from person to person by contact.

(5) The outbreak totalled 12 cases with 4 deaths. The State authorities were advised as to disinfection, disinfestation and segregation, and the Health Officer, Simla, was warned of the propinquity of typhus fever.

30. **Dysentery and Diarrhoea.**—The total number of deaths from dysentery and diarrhœa amounted to 7,013 which is the lowest on record since 1867. The recorded rate was 0·34 which is 0·24 less than last year and 0·20 than the quinquennial average. The provincial rate was exceeded in 11 districts but the excess was most marked in Rawalpindi (2·69), Simla (1·37) and Kangra (1·15). Of the remaining districts the rate recorded in Jhang was 0·47, in Ambala 0·45 and Lahore 0·40, and in the other districts it did not exceed 0·39 while it was as low as 0·02 in Hoshiarpur and Sheikhupura.

Annual Form No. X.

The urban and rural rates were 1·06 and 0·26 as against 1·35 and 0·46 in the previous year. Mr. Jacob's graphs show that mortality under this heading has steadily declined during 1867—1921. The reasons for this decline are unknown.

31. **Respiratory diseases.**—Diseases of the respiratory organs accounted for 40,004 deaths at a rate of 1·95 per mille which shows a decrease of 0·77 and 0·52 compared with the last year and the average for the previous five years, respectively. The provincial rate was exceeded in 10 districts, but the excess was most marked in Ambala where the rate was 8·74 followed by Gurdaspur 8·64 and Kangra 5·31. It was as low as 0·19 in Montgomery, 0·21 in Muzaffargarh and Shahpur and 0·24 in Sheikhupura.

Annual Form No. XI.

The urban rate was 4·39 and the rural 1·68, the corresponding rates for the previous year being 5·96 and 2·36.

32. **Injuries.**—There were 6,153 deaths due to injuries at a rate of 0·30 compared with 0·32 in the previous year and 0·34 the average for the preceding five years. The deaths were classified as follow :—

Accidents	...	4,091 (2.439 males and 1,652 females).
Wounds	...	721 (569 males and 152 females).
Suicide	...	268 (104 males and 164 females).
Snake bite	...	762
Injuries inflicted by wild beasts	...	181 and
Rabies	...	130.

33. **All other causes.**—The total number of deaths registered under the head "all other causes" amounted to 83,467 at a rate of 4·07 which is the lowest on record since 1871. The rate for the last year and the average for the preceding five years were 4·61 and 5·12, respectively. The highest rates were recorded in Gurgaon 9·0, Ludhiana 7·3, Sialkot 5·6 and Ferozepore and Lahore 5·5, while very low rates were recorded in Gurdaspur 0·4, Dera Ghazi Khan 1·4 and Muzaffargarh 1·5.

34. **Rabies.**—During the year under report 1,939 patients from the Punjab underwent anti-rabic treatment at the Pasteur Institute at Kasauli as against 1,677 last year. Of this number 192 were Europeans and 1,747 Indians. There were 7 deaths and 4 failures among Indians. In addition two cases amongst Indians are for various reasons still under enquiry. There were 134 cases in which either treatment was not considered necessary or subsequent events proved that they ran no risk.

Section IX.—Public Health Works.

Public Health Works.

35. The Report on Public Health Works during 1922 furnished by the Sanitary Engineer to Government, Punjab, is contained in Appendix B to this report.

Sanitary note books.

36. During the year under report no new village was supplied with village sanitary note books.

Rewards for sanitation.

37. Like last year no village community or any individual person made any special efforts towards village sanitary improvements and consequently no rewards were given.

Cleaning of wells and construction of parapets.

38. A sum of Rs 1,0[illegible],291 against Rs. 1,14,577 last year was spent on the cleaning of wells and construction of parapets, the former numbering 5,911 and the latter 636 against 9,320 and 815, respectively, in the preceding year.

Sale of street sweepings.

39. Income from the sale of street sweepings in municipal towns amounted in all to Rs. 2,83,271 of which Rs. 67,960 was realized in Lahore, Rs. 38,695 in Sialkot and Rs. 35,241 in Amritsar. The total amount realized last year was Rs. 2,64,697.

Land under sewage irrigation.

40. The amount of land under sewage irrigation in the principal towns increased from 1,276·76 acres last year to 1,289·92 acres during the year under report, realizing Rs. 82,108 for its use or an increase of Rs. 2,922 over last year's realizations.

Income and expenditure of municipalities and district boards.

41. During 1921-22 the number of municipalities in this province was 102. The total income during the year, excluding the opening balance of Rs. 51,17,394 and under head "Extraordinary" and debits amounting to Rs. 15,19,346 was Rs. 95,64,[illegible]32. The total municipal expenditure on Public Health and Vaccination was Rs. 35,94,207 as detailed below :—

		Rs.
1.	Water Supply...	10,65,356
2.	Drainage	8,61,146
3.	Conservancy, including establishment, road cleaning and watering, latrines, etc.	1,68,091
4.	Health Officers and Sanitary Inspectors...	1,62,795
5.	Vaccination	33,738
6.	Markets and Slaughter-houses ...	64,884
7.	Roads	11,42,094
8.	Burning and burial of paupers ...	13,018
9.	Other Sanitary requirements ...	83,085

The total income of district boards excluding opening balance amounted to Rs. 1,25,48,029 and the expenditure on Public Health and Vaccination to Rs. 2,64,578.

The information regarding grants made for sanitary works by the Sanitary Board is given in Appendix A appended to this report.

Works of public utility by private individuals.

42. A list of works of public utility constructed during the year 1921-22 by private individuals at their own expense is given below :—

AMBALA DIVISION.—*Hissar District.*—A well at Katwar, at a cost of Rs. 1,000 by Khushi, son of Hukman, Jat. A well at Jhulli, at a cost of Rs. 1,000 by Subedar Nand Ram, son of Sheoji Chuna, son of Bhara, etc., of Jhulli. A well at Bidwan, at a cost of Rs. 1,300 by Dalid, son of Adu, of Bidwan. A well at Budhsili at a cost of Rs. 150 by Sheo Ram,

son of Shankar, Mahajan of Budhsili. A well at Bhiwani at a cost of Rs. 2,000 by Hargovind Rai, son of Budhu Mal, etc., of Bhiwani Jaimpal. A well at Bahawanwala at cost of Rs. 150 by Mansa, son of Badri, of Bahawanwala, Tahsil Fatehabad. A charitable dispensary at a cost of Rs. 5,000 by Lala Ballu Ram of Hetampura.

Rohtak District.—A dharamsala at Mahmudpore at a cost of Rs. 2,500 by Harphul, son of Chaudhri Kidar Nath, Jat. A dharamsala and steps to a tank at Khanpore Kalan at a cost of Rs. 2,500 by Mussammat Dano, mother of Harnath, Jat. A pacca well at Anwali at a cost of Rs. 1,656 by Lala Rati Ram, son of Diwan Singh, Mahajan. A dharamsala and pacca well at Chhara at a cost of Rs. 4,000 by Lala Kirpa Ram, Mahajan. A well at Beri at a cost of Rs. 2,000 by Lala Ram Gopal, Mahajan. A dharamsala at Minimpore at a cost of Rs. 1,300 by Parbhu and Badri, sons of Ganga Ram, Mahajan, of Jahangirpore. A piao house at Jahangirpore at a cost of Rs. 250 by Daffedar Nathu Singh. A dharamsala at Jhajjar at a cost of Rs. 500 by Jheta Mal, son of Chittar Mal, Mahajan. A dharamsala at Matanhail at a cost of Rs. 1,600 by Mussammat Lado, widow of Ram Rattan, Jat. A ghat for a tank at Matanhail at a cost of Rs. 200 by Hazari Lal, son of Bodh Ram, Mahajan. A dharamsala and a well at Jharli at a cost of Rs. 800 and Rs. 1,200 by Kishen Lal, son of Tek Chand, Mahajan. A pacca well with a khel (cistern of water for cattle) in Chhapar at a cost of Rs. 1,300 by Gharshan, son of Asa Ram, Jat. A pacca well with khel (cistern of water for cattle) at Chhapar at a cost of Rs. 1,350 by Kanihya, son of Lachhman, Jat.

Gurgaon District.—A dharamsala at Bhangrata at a cost of Rs. 5,000 by Ram Gopal, son of Gulab Rai, Mahajan of Bhangrata, Tahsil Gurgaon. A pacca well and piao at Inayatpore, Tahsil Gurgaon, at a cost of Rs. 1,500 by Takar Nath, Darwesh. A pacca well at Bhondsi at a cost of Rs. 500 by Madho Singh and others of Bhondsi, Tahsil Gurgaon. A dharamsala at Palra at a cost of Rs. 600 by Nirbhe, son of Lakha, Lambardar of Palra, Tahsil Gurgaon. A dharamsala and well at Kairaka on Nuh-Palwal road at a cost of Rs. 1,200 by Chimna, son of Aram, Brahman of Kairaka, Tahsil Nuh. A pacca well at Suraka on Nuh-Hathin road at a cost of Rs. 1,000 by Jhangira, son of Matru of Suraka, Tahsil Nuh. A dharamsala at Aldonka at a cost of Rs. 1,000 by Ram Parshad, son of Ram Lal, Mahajan of Alduka, Tahsil Nuh. Repairs to pacca well at Outka at a cost of Rs. 1,000 by Namag Ram, son of Kusati Ram, Mahajan of Nuh. dharamsala and well at Bhulwana at a cost of Rs. 900 by Mussammat Bhim Kaur, widow of Lakhi, Jat, of Bhulwana, Tahsil Palwal. A dharamsala at Hodal on the pacca road of Agra-Delhi at a cost of Rs. 1,000 by Lala Ram, son of Chet Ram, Mahajan, of Hodal, Tahsil Palwal. A dharamsala at Rasulpur at a cost of Rs. 800 by Parma, son of Dalha Ram, Mahajan, of Rasulpur, Tahsil Palwal. A dharamsala and piao at Sehal at a cost of Rs. 2,000 by Lala Ganga Ram and Deh Ram, sons of Sohan Lal, Mahajan, of Sehol, Tahsil Palwal.

Karnal District.—A ghât with building constructed on shamlat land at a cost of Rs. 2,200 by Bakhtawar, son of Parema, Mahajan, of Aminpore, Karnal Tahsil.

Ambala District.—A pacca serai at Manauli at a cost of Rs. 4,000 by Ganda Ram, son of Natha Mal, Khatri, of Manauli, Tahsil Kharar.

JULLUNDUR DIVISION.—*Kangra District.*—A pacca booli and and atiala at Durang on Kangra Valley Cart Road at a cost of Rs. 310 by Lala Lachho, son of Balku, Mahajan, of Dhira, Tahsil Palampur. A pacca booli at Rahlu on District Board road at a cost of Rs. 170 by Mian Sukh Chain, son of Nadhana, of Rehlu, Tahsil Kangra. A katcha tank in Mauza Jangal at a cost of Rs. 200 by Mian Rasila, Lambardar, Rajput, of Jangal, Tahsil Nurpore.

Hoshiarpur District.—A pacca well at Jadla on Hoshiarpur-Chanu road at a cost of Rs. 600 by Lala Sri Kishan, son of Buta Mal, Sud, of Hoshiarpur.

Jullundur District.—A well in village Karah at a cost of Rs. 292 by Chaudhri Ram Singh, Lambardar and member of District Board of village Karah, Tahsil Nakodar.

Ludhiana District.—One pacca well at Punian, Tahsil Samrala, at a cost of Rs. 500 by Mansa Ram, Brahman, of Punian, Tahsil Samrala. One pacca well at Kullewal, Tahsil Samrala, at a cost of Rs. 600 by Natha Singh, Carpenter of Rajewal, Tahsil Samrala.

LAHORE DIVISION.—*Lahore District.*—A well for drinking purposes at Kahna Nau at a cost of Rs. 500 by Mussammat Jowala Devi, caste Tarkhan, resident of Boghiana. A drinking well near Railway Station Wagha at a cost of Rs. 350 by Labh Singh, caste Khatri, resident of Bhanu Chak.

Amritsar District.—A well and a house on Batala road at a cost of Rs. 1,200 by Harnam Singh, Santa Singh, Jat, of Rokra. A well between Bhindar and Bal Kalan at a cost of Rs. 300 by Ram Singh, Hira Singh, Jat, of Mudhal. A public well at Jodhpur at a cost of Rs. 900 by Dr. Ranpat Rai, of Jodhpur.

Gurdaspur District.—A well in village Pola, Tahsil Pathankot, at a cost of Rs. 200 by Lalu, son of Gahnu, blacksmith of Ghazi Barwan. A well in village Chanda Surja, Tahsil Batala, at a cost of Rs. 300 by Kirpa Ram, son of Jowala, Arora, of village Shikar. A well in village Khairu, Tahsil Batala, at a cost of Rs. 4[illegible]1 by Jowala Singh, son of Mahna Singh, carpenter of village Khairon.

Sialkot District.—A pacca well on Sambrial-Chaprar road near village Kulluwala at a cost of Rs. 300 by Mula, son of Maya, Brahmin, of Kulluwal.

RAWALPINDI DIVISION.—*Shahpur District.*—A sinking of a drinking water well outside his garden along the Sargodha-Shahpur road at Sargodha, open to public of all castes and creeds free of charge at a cost of Rs. 2,000 by Lala Sita Ram, son of Lala Kesho Das, Khatri, Banker of Sargodha. A drinking water well in the District Court compound at Sargodha at a cost of Rs. 1,500 by Lala Sita Ram, son of Lala Kesho Das, Khatri, Banker of Sargodha. A well near the factories at Sargodha, open to public of all castes and creeds at a cost of Rs. 1,000 by Rai Sahib Lala Kidar Nath, of Sargodha. A well near the factories at Sargodha open to public of all castes and creeds at a cost of Rs. 1,500 by Sardar Sahib Bhai Kartar Singh, Factory Owner, Sargodha. A well along the Sargodha-Shahpur road left side outside block No. 8 at Sargodha, open to public of all castes or creeds at a cost of Rs. 1,100 by Mian Zahur-ud-Din, Bar.-at-Law, Sargodha. A well for drinking purposes at Nurpur open to Hindus and Sikhs at a cost of Rs. 1,650 by Sawan Singh, son of Aya Singh and Atma Singh, son of Balak Singh, Paste Maker, Sikhs of Nurpur.

Jhelum District.—A well in village Jodho situated on road from Railway Station Domeli to village Domeli for which he spent Rs. 700 from his own pocket besides the District Board grant of Rs. 500 by Subedar Naik Muhammad of Jodho, Tahsil Jhelum.

Rawalpindi District.—Tank on Sukho road near Harnal at a cost of Rs. 850 by Gulab Singh of Harnal.

Section X.

Administration.

43. From January 1st the designation of the Department was changed from the Sanitary to the Public Health Department, that of the Sanitary Commissioner to the Director of Public Health, and that of the Deputy Sanitary Commissioners to Assistant Directors of Public Health.

I held charge of the office of Director of Public Health throughout the year. Major H. Falk, D.P.H., I.M.S., held the post of Assistant Director of Public Health, Northern Range, from the commencement of the year till 3rd April, the date on which he made over charge to Lt.-Col. C. A. Gill, I.M.S., and proceded on leave out of India. Lt.-Col. C. A. Gill held the post of Chief Malaria Medical Officer till the end of the year in addition to the charge of the office of Assistant Director of Public Health, Northern Range, which he assumed on 3rd April.

Khan Sahib Dr. K. A. Rahman held the post of Assistant Director of Public Health, Southern Range, and the post of Chief Plague Medical Officer as an additional charge throughout the year.

During the year under report the sanction of the Secretary of State was received to the scheme for the reorganization of the Public Health Department. The necessary proposals for giving effect to it have been submitted to Government and it is expected that the new scheme will come into operation from 1st April 1923.

With effect from the autumn session the Director of Public Health was nominated a member of the Punjab Legislative Council *vice* the Revenue Secretary, a measure which has quickened public interest in the activities of the Department.

The Town Planning and Improvement Trusts Act became law towards the close of the year. As noted in the 1919 Report this Act, which resulted from a note submitted by me, will prove to be of incalculable value to the province in dealing with our overcrowded insanitary towns.

The usual inspections were made by the officers of the Department during the year.

Special Departments.—The Plague and Malaria Departments continued to function as separate budget units during the year under report. Next year under the Reorganization Scheme, these two departments will cease to exist, the duties connected with them then being assumed by the Assistant Director of Public Health (Technical) Epidemiology.

Hygiene Institute and State Faculty of Health.—Owing to financial stringency both these projects remained suspended.

Education Bureau.—This section of the Department continued its useful work. A considerable number of slides on Public Health subjects were prepared during the year under report and sets on particular subjects freely lent to those applying for them.

Inspection work of Civil Surgeons and Assistant Surgeons.

44. Civil Surgeons made 154 inspections of towns and 1,257 of smaller towns and villages during the year as against 161 of towns and 1,333 of villages in 1921. Assistant Surgeons inspected 146 towns and 890 smaller towns and villages as compared with 61 and 684, respectively, in the previous year.

Free distribution of quinine.

45. A considerable quantity of quinine was distributed by local bodies free of cost.

The District Board of Kangra has resolved to spend Rs. 3,000 each year on the purchase of quinine for free distribution among those actually suffering from fever.

Filling of Depressions.

46. During the year the municipalities of Sadhaura, Ludhiana and Gujrat and the District Board of Jullundur filled up some depression in their areas and the municipalities of Sadhaura and Gujrat undertook to keep the edges of water free from grass and growth of weeds.

Lectures on Hygiene and Medical College.

47. The Assistant Director of Public Health, Northern Range, remained ex-officio Professor of Hygiene of the King Edward Medical College, Lahore, throughout the year and delivered the prescribed course of lectures on Hygiene and Vaccination to the M. B., B. S. and Post-Graduate classes.

Lectures on principles of Elementary Hygiene to vaccinators.

48. During the year under report a total number of 37 vaccinators received instruction in the principles of Elementary Hygiene, etc., at the Punjab Vaccine Institute, Lahore. Six classes, each lasting a fortnight, were held during the months of January, February and March and were attended by 36 district vaccinators and one vaccinator from the Provincial Staff.

Municipal and District Medical Officers of Health.

49. The number of municipalities employing Medical Officers of Health remained the same as last year with this change that the Health Officers of Multan and Ludhiana, who had been appointed on the understanding that they would within three years of their appointment obtain a registrable Public Health qualification, proceeded to England during the year to qualify in Public Health.

The Municipal Committee, Multan, appointed a qualified Health Officer to carry on the work during the absence of the permanent incumbent, and in Ludhiana the Civil Surgeon was made responsible for it in his capacity as ex-officio Health Officer.

The municipalities of Ferozepore and Ambala again remained without a Medical Officer of Health during the year but it is hoped that steps will be taken to appoint a Medical Officer of Health at the latter place in the course of the next year.

The number of districts in which District Medical Officers of Health are employed remained the same as last year, *viz.*, Rohtak, Gurgaon, Kangra and Jullundur.

The District Board, Karnal, evinced a desire to appoint a District Medical Officer of Health but owing to the depleted state of the Committee's finances the proposal was dropped.

At the instance of the Hon'ble the Minister for Education, a Conference of Medical Officers of Health was held during the year for the purpose of making clear to them the policy of Government in the Department of Public

Health so as to ensure co-ordination of activities. The Conference which was held in the month of April lasted two days and was attended by the following officers :—

Lt.-Col. W. H. C. Forster, D.P.H., I.M.S., Director of Public Health, Punjab,—*President.*

Lt.-Col. C. A. Gill, D.P.H., I.M.S., Chief Malaria Medical Officer, Punjab.

Dr. K. A. Rahman, D.P.H., Chief Plague Medical Officer, Punjab.

Dr. A. B. Arora, Health Officer, Lahore.

Dr. S. N. Rozdon, Health Officer, Amritsar.

Dr. G. C. Sahgal, Health Officer, Jullundur District.

Dr. G. R. Vohra, Health Officer, Kangra District.

Dr. S. G. Rasul, Health Officer, Rohtak District.

Dr. Lachman Singh, Ahluwalia, Health Officer, Ludhiana.

Dr. M. L. Talwar, Health Officer, Multan.

Dr. C. D. Tiwari, Health Officer, Jullundur.

Dr. A. R. Mehta, Health Officer, Rawalpindi.

Dr. C. L. Sahni, Health Officer, Sialkot.

Dr. M. J. Thakar, Health Officer, Gurgaon District.

Mr. A. R. Astbury, Sanitary Engineer to Government, Punjab, also attended.

In the unavoidable absence of the Hon'ble Minister for Education the opening address was delivered by the Director of Public Health who emphasized the necessity for (1) making the activities of the Public Health Department better known ; (2) making the Department popular with the people who as yet could not be expected to realize the theoretical importance of Public Health work. In this connection great stress was laid on the personal factor and the necessity for tact in dealing with popular ideas and prejudices ; (3) the importance of conducting an intensive campaign on the educational side. In this connection the functions of the Education Bureau of the Public Health Department were explained.

The Bureau in addition to routine work undertakes to prepare lantern slides from local subjects for the use of approved lecturers.

A report of the proceedings of the Conference was submitted to Government.

Lahore Health School.

50. This school was opened in October at Lahore for training Health Visitors and Maternity Supervisors under the auspices of the Lady Chelmsford Maternity and Infant Welfare League and is managed by a Committee composed of the Director of Public Health, Punjab, the Assistant to the Inspector-General of Civil Hospitals, Punjab, and the Lady Superintendent of the School.

It is proposed to train six women each year, the successful candidates being available for work in towns and districts in the province. They will work under the Medical Officer of Health and will undertake the work of teaching and supervising dais, both those employed by local bodies and dais of the hereditary class. They will visit the houses of the people, give instruction in domestic hygiene, the care of expectant and nursing mothers, and of young children – the object of their work being to reduce infant mortality. Towards the working expenses of this school Government has sanctioned an annual grant of Rs. 6,000.

This grant having proved insufficient the Sanitary Board gave a special grant of Rs. 3,000 for the year on the understanding that Government would be moved to increase its contribution to Rs. 9,000 annually. The necessary steps have been taken and the item has been passed by the Finance Committee of the Legislative Council for inclusion in the Budget.

Provincial organisation with regard to Maternity and Child Welfare Centres being in a chaotic state the subject was transferred *en bloc* to the Public Health Department during 1922.

The principles I have laid down and which are being worked up to are :—

(1) The Punjab Health School which trains Lady Health Visitors for all Provincial Centres is a fair charge on Provincial Revenues.

This school is at present conducted under the auspices of the Punjab Branch of the Lady Chelmsford League and owes its inception to Dr. Agnes Scott, W.M.S. Being a State-aided institution the Director of Public Health is ex-officio President of the Committee of Management to meet the condition that State-aid connotes State supervision.

(2) In the case of local centres the cost should be distributed as under :—

(*a*) Buildings and equipment (*b*) Establishment charges.	The Local Body. (Grant-in-aid where necessary.)
(*c*) Materials ... (*d*) Supplementary charges... (*e*) Additional assistance ...	Voluntary Contribution. (Arranged by local committees.)

In this connection Lady Maclagan, to whose keen interest and material assistance our progress is chiefly due, has provided the Simla Centre with the nucleus of a fund for securing the services of trained dais in the case of poor women. This is a great advance on the system of Municipal dais as the Centre Superintendent can detail a trained dai for attendance on such cases and pay her the customary fee for her work.

(3) Grants-in-aid by the League to Local Bodies will be subject to the following conditions :—

(*a*) The employment of a Lady Health Visitor possessing qualifications approved by the Department of Public Health.

(*b*) The submission of prescribed simple statistical returns.

(*c*) The submission of an annual report in the prescribed form.

(*d*) Periodical inspection.

In this connection the Central Organisation of the Lady Chelmsford League has been asked to terminate the present practice of dealing directly with Local Centres and to adopt the principle of distributing all grants through, and at the discretion of, the Provincial League. It is understood that the system will be adopted with effect from the coming financial year.

(4) In the case of large or scattered municipal areas centres to be organised on the principle of a main centre under a Lady Health Visitor and subsidiary centres in the charge of nurse-dais working under the general supervision of the Main Centre.

Standard schemes for main and subsidiary centres, giving all working details, are being prepared for the guidance and assistance of Local Bodies.

At present there are only five main centres in the province but the demand is increasing very rapidly and our greatest difficulty is the provision of qualified Lady Health Visitors. Propaganda work is carried on by means of standard lectures, copiously illustrated by lantern slides, issued from the Education Bureau of the Public Health Department, and if the Health Visitors were available the number of centres would quickly increase. Unfortunately the class of woman required for the work is scarce and is generally absorbed by the Education Department which has much better prospects to offer. The problem, however, is being steadily attacked and if the prospects can be sufficiently improved to attract the nursing profession solution will not be long deferred.

Large fairs.

51. The Sun Eclipse Fair at Thanesar was held on 21st September, the attendance at which is estimated to have been between 4 and 5 lakhs. I visited Thanesar on 27th July, went over the whole of the fair area and

discussed the arrangements for the fair with the Deputy Commissioner. The Civil Surgeon, Karnal, paid a number of visits to the place to supervise cleansing and disinfection of the wells, etc. The Assistant Director of Public Health, Southern Range, joined the local staff on 20th September and remained until the dispersion of the pilgrims. Everything went off well except for a small outbreak of cholera which occurred on the 21st instant and which has already been dealt with. A full report regarding this fair is being prepared for submission to Government.

The Nankana Sahib Fair, the sanitary arrangements of which were supervised by the Assistant Director of Public Health, Northern Range, and which was attended by about 1 lakh of pilgrims was held from 1st to 7th November and passed off without the occurrence of any epidemic disease.

The annual Choa and Katas fairs in the Jhelum District were held on 6th and 7th and 12th and 13th April, respectively.

The attendance at both the fairs was comparatively small, *viz.*, about 18,000 at Choa and 10,000 at Katas. The fairs passed off without any case of infectious diseases.

Sanitary Inspectors.

52. The usual class of Sanitary Inspectors was held during the year and 11 out of 17 candidates passed the prescribed examination.

Formation of new towns in the vicinity of the North-Western Railway.

53. No new towns were formed in the vicinity of the North-Western Railway Stations in British territory during the year under report.

Work of the Provincial Laboratory.

54. A synopsis of work done in the Provincial Pathological Laboratory, King Edward Medical College, Lahore, during the year 1922 is given below :—

The following examinations were made.

(*i*) Blood examinations ...	...	2,420
(*ii*) Bacteriological examinations ..	...	1,049
(*iii*) Tumours and Histological specimens	...	231
Total	...	3,700

Sources of specimens sent for examination.

(*i*) Blood examinations—		
(*a*) From the Mayo and Albert Victor Hospitals...		1,527
(*b*) From Civil Surgeons, etc. ...	...	893
Total	...	2,420
(*ii*) Bacteriological examinations—		
(*a*) From the Mayo and Albert Victor Hospitals		510
(*b*) From Civil Surgeons and others ...	...	539
Total	...	1,049
(*iii*) Tumours and other Histological specimens—		
(*a*) From the Mayo and Albert Victor Hospitals...		134
(*b*) From Civil Surgeons and others	...	97
Total	...	231

Details of various examinations.

(*i*) Blood examinations—

Widal Reaction.	*Positive.*	*Negative.*	*Total.*
(*a*) B. Typhosus ...	59	230	289
(*b*) B. Paratyph A. ...	13	257	270
(*c*) Ditto B. ...	8	258	266
(*d*) B. Coli ..	193	263	456
(*e*) B. Dysenteriæ ...	3	7	10
(*f*) Mic-melitentsis ...	12	100	112
Wassermann Reaction ...	209	230	439
Miscellaneous including Malaria and spirilla ...	...	...	578
Total ...	497	1,345	2,420

(*ii*) Bacteriological examinations—

(*a*) Sputa	...	167
(*b*) Urine	...	147
(*c*) Water samples	...	82
(*d*) Shaving brushes	...	11
(*e*) Other pathological discharges, etc.	...	642
Total	...	1,049

(*iii*) Tumours and other Histological examinations—

(*a*) Simple tumours		...	37
(*b*) Malignant tumours		...	82
1. Carcinomata ...	35	82	
2. Sarcomata ...	22		
3. Endotheliomata ...	25		
(*c*) Other Histological specimens ...		...	112
Total		...	231
(*a*) From Mayo and Albert Victor Hospitals		...	134
(*b*) From Civil Surgeons and others		...	97
Total		...	231

Vaccine prepared	191
Doses of vaccine issued from the Laboratory	4,803
Patients treated with Tuberculin and other vaccines...	102

Office work was exceptionally heavy during the year on account of the reorganisation of the Department and my thanks are due to Mr. Jennings, Superintendent, M. Maula Bakhsh, Head Assistant and Pandit Kailas Nath for much valuable work.

W. H. C. FORSTER, Lt.-Col., I.M.S.,

The 28th May 1923. *Director of Public Health, Punjab.*

APPENDIX A.

PROCEEDINGS OF THE SANITARY BOARD, PUNJAB.

I held the post of Secretary to the Board throughout the year. Rai Bahadur Dr. Hira Lal, Municipal Commissioner, Lahore, was appointed a member of the Board, in place of Dewan Bahadur Dewan Daulat Rai, resigned.

The Board met eight times during the year, three times in Simla and five in Lahore.

The Auditor attached to the Sanitary Board carried out the audit of accounts of a large number of Sanitary schemes to which the Board had given grants-in-aid and brought to light many irregularities in the maintenance of the accounts by local bodies.

The Chemist was reappointed on the same terms as before and was employed for determining the analytical data of different articles of food in connection with the Adulteration of Food and Drugs Act. 400 samples of milk were analysed and the standards proposed were based on those results.

The following is the detail of the grants sanctioned out of last year's balance of Rs 2,23,323 out of which Rs. 14,370-4-3 lapsed to Government.

		Rs.	A.	P.
1.	Construction of a Goat Slaughter-house, Jullundur.	4,451	0	0
2.	Allotment towards the pay, travelling allowance and contingencies of the Auditor.	300	0	0
3.	Trial boring at Khushab... ...	51	0	0
4.	Preparation of large scale maps	22,362	11	9
5.	Multan Water Works	50,000	0	0
6.	Metalling and paving of Kaisith Majri Street, Ambala.	4,999	0	0
7.	Addition of a filter bed to the Lyallpur Water Supply.	7,635	0	0
8.	Flushing arrangements of the drainage scheme at Shujabad.	902	0	0
9.	Construction of a Beef Slaughter-house at Panipat	2,627	0	0
10.	Trial boring in connection with the Bhalwal Water Supply Scheme.	625	0	0
11.	Improvement of the rural water supply of the Kangra District.	15,000	0	0
12.	Multan Water Works	50,000	0	0
13.	Jullundur Drainage Scheme	50,000	0	0
	Total ...	2,08,952	11	9

A fresh grant of 4 lakhs was placed at the disposal of the Sanitary Board for allotment during 1922-23 and from this the following grants were made up to 31st December 1922, leaving a blance of Rs. 1,30,2[illegible]3-9-9 which will be accounted for in next year's report :—

		Rs.	A.	P.
1.	Filling of depression in Palwal	15,000	0	0
2.	Trial Well at Sarangpur in connection with Ambala Water Supply.	28,000	0	0
3.	Experimental Metering of the Sialkot Water Supply.	3,236	0	0
4.	Improvement of the Kangra Valley Roadside Springs.	4,940	0	0
5.	Drains and pavements in new blocks at Campbellpore.	26,595	0	0

		Rs.	A.	P.
6.	Sillanwali Drainage Scheme	3,336	0	0
7.	Allotment towards the pay, travelling allowance and contingencies of the Chemist and his staff.	5,000	0	0
8.	Allotment towards the pay, travelling allowance and contingencies of the Auditor and his peon.	3,000	0	0
9.	Purchase of books	120	0	0
10.	Lady Chelmsford League for Maternity and Child Welfare.	3,000	0	0
11.	Simla Water Supply Extension Scheme	1,00,000	0	0
12.	New tube well at Empress Garden, Jullundur City	750	0	0
13.	Sinking of a percolation well at Pathankot ...	9,261	0	0
14.	Trial boring at Bhiwani	1,909	0	0
15.	Improvement of Singhpur Village, Gurdaspur District	700	0	0
16.	Jandiala Drainage Scheme	9,398	0	0
17.	Trial boring in two existsing wells in the Hissar District.	2,618	0	0
18.	Wazirabad Slaughter-house	4,865	0	3
19.	Stand for ponies at Murree	2,009	0	0
20.	Improvement to the Sarwana Nalla Drainage Scheme at Hazro.	289	8	0
21.	Khem Karn Drainage Scheme	2,944	12	0
22.	Sonepat Water Supply Scheme	4,913	0	0
23.	Construction of a tank at Kheri Madanpur ...	2,000	0	0
24.	Drainage at Gujar Khan	5,500	0	0
25.	Trial boring at Dajal	1,639	0	0
26.	Storm Water Channel at Murree	766	0	0
27.	Flushing Scheme for Surface Drainage in Chubar Kana.	3,887	8	0
28.	Campbellpore drains and pavements	5,053	3	0
29.	Rectifying defects of Pind Dadan Khan drains ...	582	0	0
30.	Sewage drain in a lane in Kuri Mohalla at Murree.	145	0	0
31.	Pavement of streets above the main bazaar at Murree.	634	0	0
32.	Improving the drains in the Notified Area Chowinda in the Sialkot District.	2,473	0	0
33.	Drainage and pavements of streets in Mitranwali Notified Area, Sialkot District.	1,383	0	0
34.	Trough drains in the Civil Station, Murree ...	3,500	0	0
35.	Paving a nullah at Murree	1,351	0	0
36.	Experiment in connection with the Ami Water Lift in Hoshiarpur town.	453	0	0
37.	Trial boring at Panipat	2,800	0	0
	Total ...	2,69,773	6	3

The schemes noted below were approved by the Sanitary Board and administrative approval accorded in each case :—

		Rs.
1.	Sinking of two tube wells at Ambala	15,471 18,995
2.	Improvement of the rural water supply of Kangra district...	34,840
3.	Filling of depressions round Palwal...	24,869
4.	Construction of drains, metalled roads and paving streets in new blocks at Campbellpore.	66,770
5.	Drainage and earth filling works of Blocks 17 and 20 at Sargodha.	59,826
6.	Montgomery Storm Water Channel...	62,107
7.	Drainage extension scheme at Patteki	15,417
8.	Gujar Khan Drainage Scheme	17,382

The Board accorded revised administrative approval to the following schemes : —

		Rs.
1.	Jandiala Drainage Scheme	46,878
2.	Drains in the new blocks of Campbellpore	79,456
3.	Sangla Drainage	50,092

The Government in the Civil Department accorded administrative approval to the Amritsar Storm Water Channel at a cost of Rs. 2,91 ,410 and revised administrative approval to the Muktsar Water Supply Scheme at a cost of Rs. 3,09,904.

The Secretary to the Government in the Public Works Department accorded technical sanction to the following schemes :—

		Rs.
1.	Tandlianwala Water Supply	1,01,173
2.	Trial well at Sarangpur	34,589
3.	Jullundur Drainage	7,57,973
4.	Purchase of plant and machinery required in connection with Rothak Drainage Scheme.	36,579
5.	Khem Karan Drainage Scheme	74,129
6.	Muktsar Water Supply Scheme	3,09,904

The technical sanction by the Sanitary Engineer to Government, Punjab, was accorded to the undermentioned schemes :—

		Rs.
1.	Percolation well at Pathankot	9,261
2.	Street improvement at Mitranwali	2,767
3.	Drainage improvement at Chowinda	4,947

The present annual grant of 4 lakhs falls far short of the needs of the Board which was petitioned for aid during the year to the extent of 9 lakhs. On account of financial stringency no increase in the allotment could be made but when circumstances permit it is hoped that the Board will be accorded generous treatment. Local bodies depend on subsidies from the Board for the execution of sanitary projects designed to improve the environment of the population and in most cases some such improvement is an urgent necessity. Of the general questions before the Board during the year the most important was that of reducing Departmental charges from 19 per cent. to 12 per cent., a step which has been taken in the United Provinces. So far as the Board is concerned the change has been approved but there are apparently serious administrative difficulties in giving effect to it.

APPENDIX B.

ANNUAL REPORT OF THE SANITARY ENGINEER TO GOVERNMENT, PUNJAB, FOR THE YEAR 1922.

Mr. A. R. Astbury, M.Inst.C.E., remained in the post of Sanitary Engineer throughout the year. The title of Rai Bahadur was conferred on Lala Amar Nath Nanda in the New Year Honours, a very fitting recognition of the 20 years of strenuous service which this officer has given to Government in the cause of public health. In furtherance of the policy whereby the Sanitary Engineer undertakes the execution of sanitary schemes, the two Sanitary sub-divisions held by Messrs. Bromage and Howell were raised to the status of Divisions. An additional sub-division was created with headquarters at Khushab.

During the year 54 different towns were visited by the staff in connection with sanitary schemes. Projects to the value of Rs. 54,04,347 have been prepared.

Lahore.—A feature of the year was the visit to Lahore in February of His Royal Highness the Prince of Wales. The sanitary arrangements for the temporary camp were made and found satisfactory by the Camp authorities.

The sewage purification plant at Government House has been a source of nuisance from smell at intervals and with the object of finding a remedy for this an experimental plot has been laid out for irrigating crops by sub-surface drains Sugarcane has been grown very successfully and smell has been entirely eliminated. As soon as funds are available the system will be extended and it is hoped that it will prove a solution to the difficulty of sewage disposal in a small populated area.

The Lahore Municipality has still not started their share of the much needed improvement to the storm channel which passes through the grounds of Government House (*vide* last year's report), with the result that the grounds were again flooded in the monsoon and the pumping plant of the sewage disposal works was only saved from damage by temporary removal.

The schemes for the sewerage of Lahore were considered by the Municipal Committee who while approving generally of scheme 'C' estimated at Rs. 15,63,670 asked for certain modifications and extensions to cover parts of the city area. This modified scheme called scheme 'D' has been worked out by Mr. D. A. Howell and is estimated to cost Rs. 23,68,424, an increase over scheme 'C' of Rs. 8,04,754.

In the meantime the temporary sewage pumping station at Shish Mahal is being used to raise the sewage from the Council Chamber area.

The second Hathorn Davey vertical triple-expansion pumping engine of 200,000 gallons per hour capacity has been erected and passed its trial-run successfully. The repairs to the original trench wells have been completed by the Municipal Engineer. Tube-wells at Race Course Road and the Mall are under construction. The Municipal Engineer is preparing a second preliminary scheme for increasing the Municipal water-supply.

No. I Sanitary Provincial Division.

PRINCIPAL WORKS UNDER CONSTRUCTION IN CHARGE OF MR. J. A. R. BROMAGE, A.M. INST.C.E.

Khushab Water-supply.—Estimated cost Rs. 53,338. Work was started in January 1922, but was delayed for many weeks owing to an outbreak of plague in the town. The contractor having failed to execute the work with due diligence was superseded by departmental arrangements and petty contractors. The distribution system has been completed, the headworks are nearing completion, and the pumping plant is being installed. The water-works will probably be available for use by 1st April.

Attock Fort.—A temporary supply of 1,500 gallons per hour was suddenly requisitioned by the Inspector-General of Prisons. Immediate arrangements were made to pump from the Indus by means of a portable steam-engine and pulsometer. The complete scheme was installed in 14 working days.

Rawalpindi.—An experimental well 20 feet diameter is being sunk at the site of the trial boring made last year near Baba Ujagar Singh's house. The yield of this well will show whether it can be used as a means of increasing the town supply. The Municipality have also made an experimental well near the village Sohan. Alternative schemes using these two sources have been sent to the Municipality for disposal.

Sialkot.—With a view to determining the water being consumed a Venturi meter has been installed on the rising main from the pumping station and at the same time about forty private connections are being metered to determine what waste, if any, occurs in private houses. The installation of these meters is in progress.

Campbellpore trial boring.—A trial boring has been completed at Campbellpore which shows that suitable conditions exist for a tube-well supply for the water-works extensions and strata giving slightly Artesian conditions have been encountered.

No. II Sanitary Provincial Division.

PRINCIPAL WORKS UNDER CONSTRUCTION IN CHARGE OF MR. D. A. HOWELL, A. M. INST. C. E.

Ambala Water-works.—The construction of the great well 40 feet in diameter mentioned in last year's report has now been started and is progressing favourably.

Rewari Water-works.—Completion work Rs. 24,000. These works were taken over by this Department in December 1921, and the necessary funds were placed at our disposal in May 1922. Since the works were taken over, the plant has been kept going regularly. The work done to date includes under pinning and reinforcing engine house floor and walls, alterations and repairs to pumping plant and machinery to ensure proper working, completion of wells, erection of Venturi meter, well gauges and subsidiary work. A borehole was put down in well No. 3 to a depth of about 240 feet but no suitable water bearing strata was found. A second bore is now being put down in another position. A Cook strainer is ready for fixing should suitable strata be obtained.

Rohtak drainage.—These works which have been under construction during the year are nearing completion, practically all drains having been finished and the pumping machinery for the Rohtak Mandi pumping station is about to be got. Periodical inspections and reports were made as well as detailed drawings, estimates and other particulars required from time to time to enable work to be carried out.

Bhiwani water-supply.—Trial boring Rs. 2,195. A bore 250 feet deep was put down near the Dhobi tank but no suitable sweet water-bearing strata were found. An estimate has been prepared for a second bore in another position which it is hoped to commence shortly.

Trial borings have been made also at Sura Nussi (near Jullundur) in connection with the possibility of distributing cheap electric power for raising water for irrigating areas uncommanded by canal gravity flow. Trial borings have also been made at Rohtak, Hoshiarpur, Hissar and Kharar.

No. III Sanitary Provincial Division.

PRINCIPAL WORKS UNDER CONSTRUCTION IN CHARGE OF RAI BAHADUR LALA AMAR NATH NANDA, B.A., M. I. E.

LAHORE.—*Borstal Institution.*—To render the present inadequate supply of drinking water sufficient for the requirements of the above institution, a tube-well has been sunk and an electric motor and pump have been ordered for pumping water into the water tower. In November 1922, an unexpected additional demand for extra water arose on the admission to the Institution of 1,600 Akali prisoners and this was successfully met by the temporary fitting up of an oil engine placed on the tube.

Government College.—The second tube-well installation for irrigating and filling the swimming bath which was under construction last year was completed and has been working satisfactorily.

Chuharkana Mandi.—A tube-well for flushing the drainage system of this town has been undertaken at an estimated cost of Rs. 7,775 which on completion will enable the drains to be maintained properly and the sanitation improved.

Pathankot.—A trial boring having proved the existence of boulder beds a few feet below spring level, an experimental percolation well of 16 feet diameter has been undertaken as the source of a public water supply for this place. The estimated amount is Rs. 9,261.

Khemkaran.—The drainage extension at an estimated cost of Rs. 74,129 (including Public Works Department charges) has been commenced, and brick and lime manufacture have been started with a view to commence construction work in February next.

Jullundur tube-well. Tube-well in the Empress Garden.—This tube-well which was completed last year was worked for six months under the supervision of this Department and subsequently handed over in good working order to the Municipal Committee, Jullundur.

Jullundur drainage scheme.—The construction of this scheme has advanced satisfactorily and a sum of Rs. 2,76,659 has been spent up till 31st December 1922. The estimated amount of the work is Rs. 7,57,973 and the funds placed at our disposal are Rs. 4,88,700. Parts of the scheme have been delayed for want of land and by changes desired in alignments by the Municipal Committee.

Hoshiarpur drainage scheme.—The estimated cost of the work is Rs. 2,18,867, and funds have been received up to Rs. 1,70,000. The amount spent up to the end of 1922 is Rs. 41,211. The work is progressing satisfactorily, except where it has been delayed for went of land.

PROJECTS PREPARED OR SCRUTINISED DURING THE YEAR.

Place.	*Nature of scheme.*	*Estimated cost.*
		Rs.
Maghiana ...	Detailed drainage scheme prepared and submitted for technical sanction.	2,97,638
Campbellpore ...	Detailed water-supply scheme	1,87,785
Rawalpindi ...	Alternative preliminary water-supply projects, for extension.	5,79,471 (*a*) 9,16,470 (*b*)
Attock Fort ...	Scheme for temporary supply prepared in detail.	16,180
Campbellpore ...	Detailed drainage project amounting to Rs. 79,456, prepared by District Engineer was scrutinised.	
Bhalwal ...	Detailed drainage project prepared ...	33,103
Lahore ...	Preliminary scheme 'D' ...	23,68,424
Kharar ...	Detailed water-supply scheme	60,399
Gurgaon ..	Original scheme revised	89,819
Ludhiana ...	Preliminary scheme for sewerage of Wakefield Ganj area.	79,866
Kharar ...	Detailed drainage scheme	42,552
Palwal ...	Anti-malarial scheme	79,958
Ferozepore ...	Jail water-supply scheme	12,727
Ambala ...	Alternative preliminary drainage scheme ...	29,079 (*a*) 50,579 (*b*) 71,547 (*c*)
Muzaffargarh ...	Preliminary drainage scheme	1,62,721
Ferozepore ...	Extension of drainage scheme, preliminary...	2,20,953
Lahore ...	Lunatic Asylum drainage, preliminary ...	19,800
Lahore ...	Lunatic Asylum water-supply	25,280
Amritsar ...	Water-supply of new medical school ...	31,672
Amritsar ..	Drainage of new medical school ...	28,324
	Total ...	54,04,347

A. R. ASTBURY, M. INST. C. E.,
Sanitary Engineer to Government, Punjab.

STATISTICS OF PUNJAB WATER WORKS FOR THE YEAR ENDING 31st MARCH 1922.

No.	Name of Municipality.	Population at the census of 1921.	Average daily quantity of water pumped during the year ending 31st March 1922.	Average daily supply per head of population.	Receipts.					Expenditure.								Balance.		Remarks.
					Water rate.	Sale of water.	Rate of meters.	Other receipts.	Total receipts.	Establishment.	Pumping.	Intake.	Settling tank and filter.	Distribution.	Repairs.	Water analysis.	Total expenditure.	Receipts.	Expenditure.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
			Gallons	Gallons	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1	Dera Ghazi Khan ...	20,731	146,449	7·06	...	1,558	126	...	1,684	3,363	6,726	17	1,187	314	2,514	...	..	...	12,437	
2	Sargodha	17,728	*	*	4,585	165	184	11	4,945	4,660	11,993	180	67	166	126	918 (price of water).	18,130	...	13,185	Rs. 20 Miscellaneous expenditure.
3	Simla	26,149	34,245	11·8	56,195	71,609	7,913	8,289	1,44,006	70,501	75,089	...	1,512	22,082	2,233	...	1,71,417	...	27,411	
4	Sialkot	56,018	1,577,303	28·15	...	12,876	...	27	12,903	15,681	39,809	...	...	853	597	...	56,940	...	44,037	
5	Ambala (Handesra) ..	28,581	217,014	7·59	...	14,678	...	...	14,678	10,344 +294 +10,344	11,317	210	...	2,920	2,492	...	37,921	...	23,242	Rs. 294 are for office contingencies and Rs. 10,344 for rent.
6	Toba Tek Singh ...	*	6,252	*	798	673	...	...	1,471	1,132+ 42	1,894	200	213+ 1,201	...	270	1,000	9,349	...	7,878	Rs. 42 are for office contingencies Rs. 4,397 are additional charges under Head Miscellaneous.
7	Dharmsala ...	3,065	*	*	3,337	...	...	...	3,337	297	...	...	...	...	4,637	...	4,934	...	1,597	
8	Gojra	7,622	30,000	3·9	..	1,965	...	...	1,965	1,626	3,522 +1,266	1,500	..	370	673+300	...	9,267	..	7,302	
9	Dalhousie ...	1,451	*	*	3,792	..	...	...	3,792	397	...	...	...	78	14	...	†489	3,303	...	†Besides Rs. 489 the Municipality paid Rs. 780 as replacement of loan and spent Rs. 821-4-10 on new additional lines in April 1922.
10	Ludhiana ...	51,880	632,670	12	...	14,921	...	417	15,338	12,818	19,604	...	...	...	...	...	32,422	...	17,084	
11	Rewari ...	23,129	100,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
12	Jaranwala ...	4,000	88,000	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
13	Lyallpur ...	28,136	290,073	10·3	...	14,419		...	...	7,021	4,658	3,712	4,056	2,834	384	...	22,665	...	8,246	
14	Rawalpindi ...	55,251	509,693	9·22	...	3,400	164	...	3,564	5,068	...	...	...	10,533	...	...	15,601	...	12,037	
15	Murree ..	2,397	24,758	10·32	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
16	Lahore ...	257,295	4,222,500	16·40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
17	Amritsar ...	157,031	1,875,000	11·90	..	78,271	1,379	929	80,579	17,681	29,198	...	...	1,372	14,850	...	63,101	17,478	...	
18	Pind Dadan Khan ...	9,919	38,400	3·87	...	542	...	...	542	1,194	4,342	...	...	394	331	...	6,261	...	5,719	(Over expenditure).

NOTE :—Figures for the columns marked* have not yet been supplied by the Municipalities.

AMAR NATH NANDA, B. A., M. I. E.,

Offg. Sanitary Engineer to Government, Punjab.

APPENDIX C.

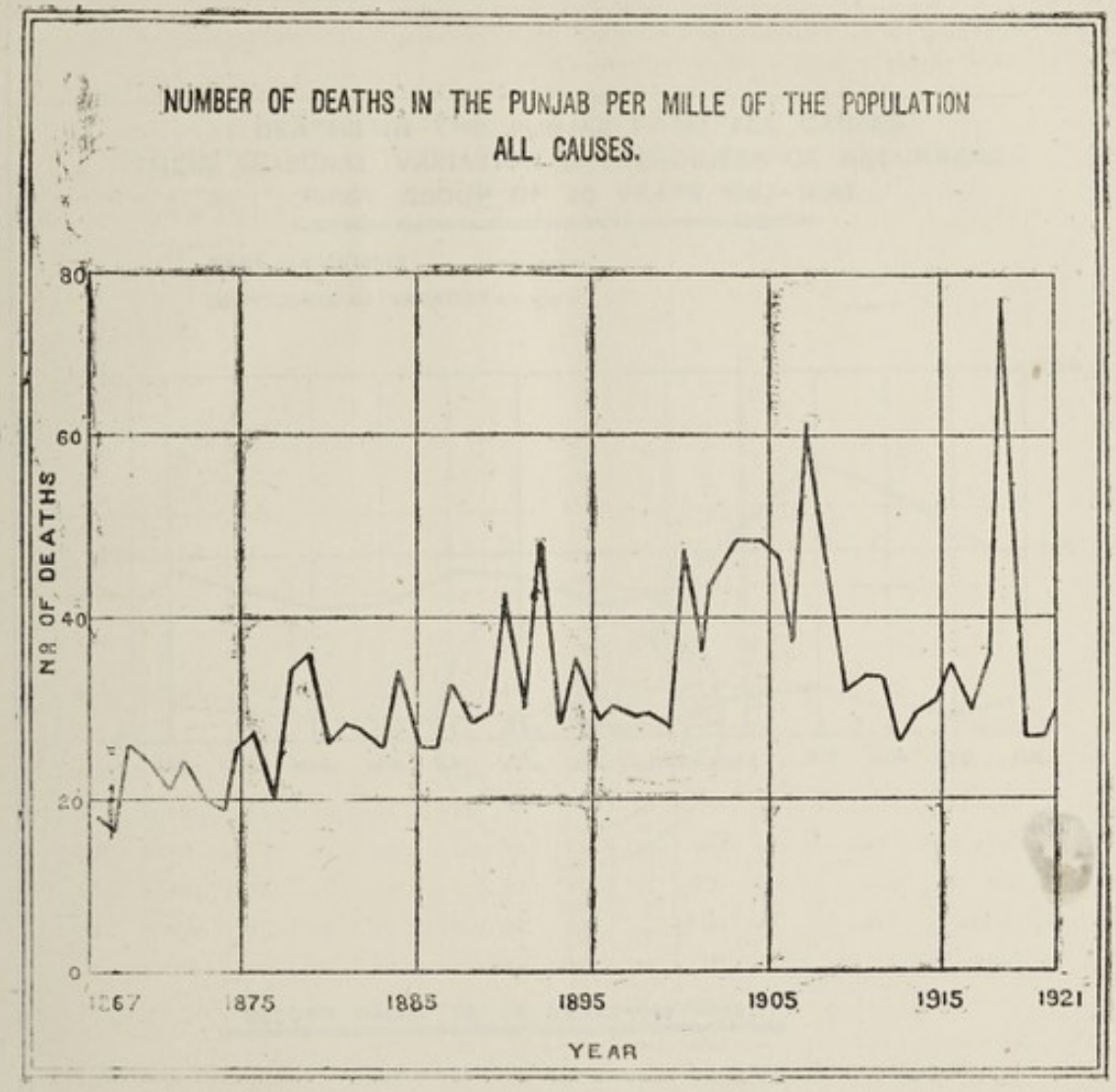
Statement showing the death rates from cholera, small-pox, fevers and dysentery and diarrhoea for the five years preceding and for the period since the introduction of drainage or water-supply or both in the undermentioned towns.

Towns.	Date of completion of works of.		Average annual death rate since the introduction of drainage or water-supply or both.				Average annual death rate for the five years' period preceding the introduction of drainage or water-supply or both.				Remarks.
	Drainage.	Water-supply.	Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhœa.	Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhœa.	
1	2	3	4	5	6	7	8	9	10	11	12
Ambala	...	1895	0·5	0·4	13·0	3.2	0·5	0·4	19·3	6·4	
Simla	1893	1893	0·02	0·4	13·9	1·0	...	1·1	17·1	1·4	
Ludhiana	1895	1909	0·3	0·7	17·3	1·8	0·4	2·7	20·8	1·6	
Jagraon	1907	...	0·5	1·0	13·4	1·6	0·6	1·5	9·3	2·0	
Ferozepore	1916	...	0·6	0·6	12·7	1·4	0·2	0·7	9·8	1·1	
Zira	1913	...	0·5	1·7	18·1	0·7	0·3	4·0	16·6	0·9	
Fazilka	1913	...	1·2	1·2	22·9	1·8	2·2	2·6	21·4	1·7	
Lahore	1921	1881	0·6	0·6	14·8	1·5	0·2	0·6	20·0	1·3	
Kasur	1922	...	..	0·1	12·7	1·1	1·6	1·0	21·8	1·0	
Amritsar	1885	1904	0·6	1·1	22·4	1·8	0·4	0·7	31·3	1·8	
Gurdaspur	1914	...	0·2	0·5	16·3	2·9	0·8	0·5	13·2	2·6	
Dalhousie	...	1894	0·04	0·04	12·1	1·8	...	...	9·6	2·4	
Pathankot	1915	...	1·5	0·6	21·1	3·3	0·8	0·7	12·4	2·8	
Sialkot	...	1915	0·7	0·2	11·9	2·3	3·0	1·2	9·6	2·3	
Gujranwala	1892	...	0·6	0·9	18·7	1·2	0·5	0·6	19·7	1·7	
Gujrat	1906	...	1·0	0·4	19·8	1·8	0·3	0·2	16·9	1·9	
Bhera	1917	...	0·02	0·2	23·2	2·0	0·03	0·7	17·8	1·7	
Sargodha	1907	1907	0·01	0·4	7·8	0·7	Not	av	ailable.		
Jhelum	1908	...	0·3	0·5	14·1	1·7	1·5	0·3	14·0	2·1	
Pind Dadan Khan ...	1909	1909	0·1	0·8	21·3	2·8	1·1	0·7	23·1	3·6	
Rawalpindi	1907	1887	0·6	0·3	18·7	2·3	0·5	0·1	16·4	3·4	
Murree	...	1894	0·1	0·1	15·6	1·9	0·7	0·4	14·8	0·9	
Mianwali	...	1904	0·2	0·6	20·4	2·0	Not	av	ailable.		
Lyallpur	1904	1904	0·1	0·7	11·3	0·8	*2·8	*0·4	*16·3	*2·1	
Gojra	...	1916	0·2	0·5	7·6	0·7	†...	†...	†0·5	†...	
Multan	1907	...	0·2	0·8	18·5	2·4	0·01	1·9	16·9	2·4	
Dera Ghazi Khan ...	...	1913	0·04	0·4	16·0	2·1	2·0	0·6	15·9	1·6	
Kalka	...	1890	0·4	0·1	14·3	2·3	1·7	0·2	15·2	3·9	

*Figures available for four years only.

†Figures for 1914 and 1915 only.

APPENDIX D.



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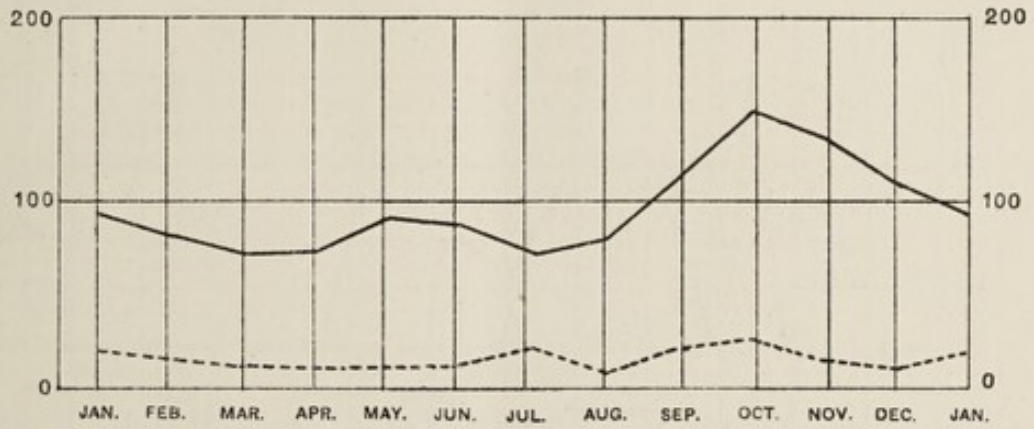
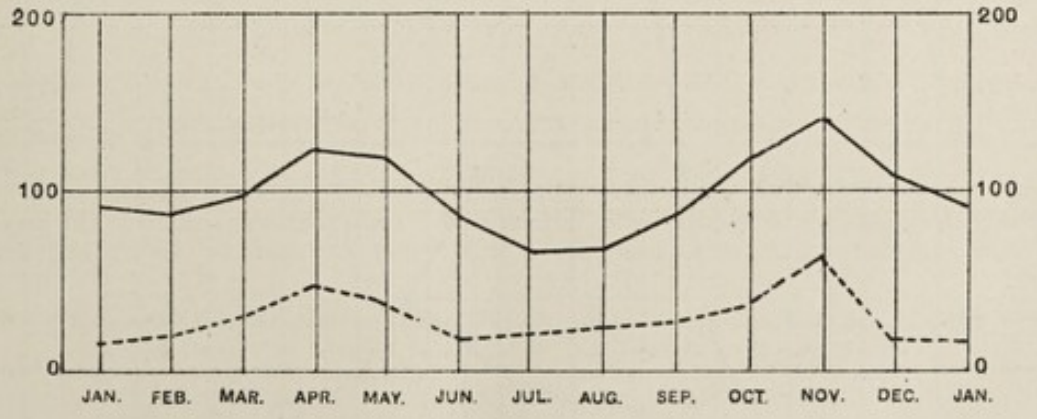
APPENDIX E.

DEATHS IN THE PUNJAB FROM ALL CAUSES
THEIR SEASONAL VARIATION & STEADINESS OF RECURRENCE
FIRST GROUP OF 30 YEARS 1867–1896.



SECOND GROUP OF 25 YEARS 1897–1921.



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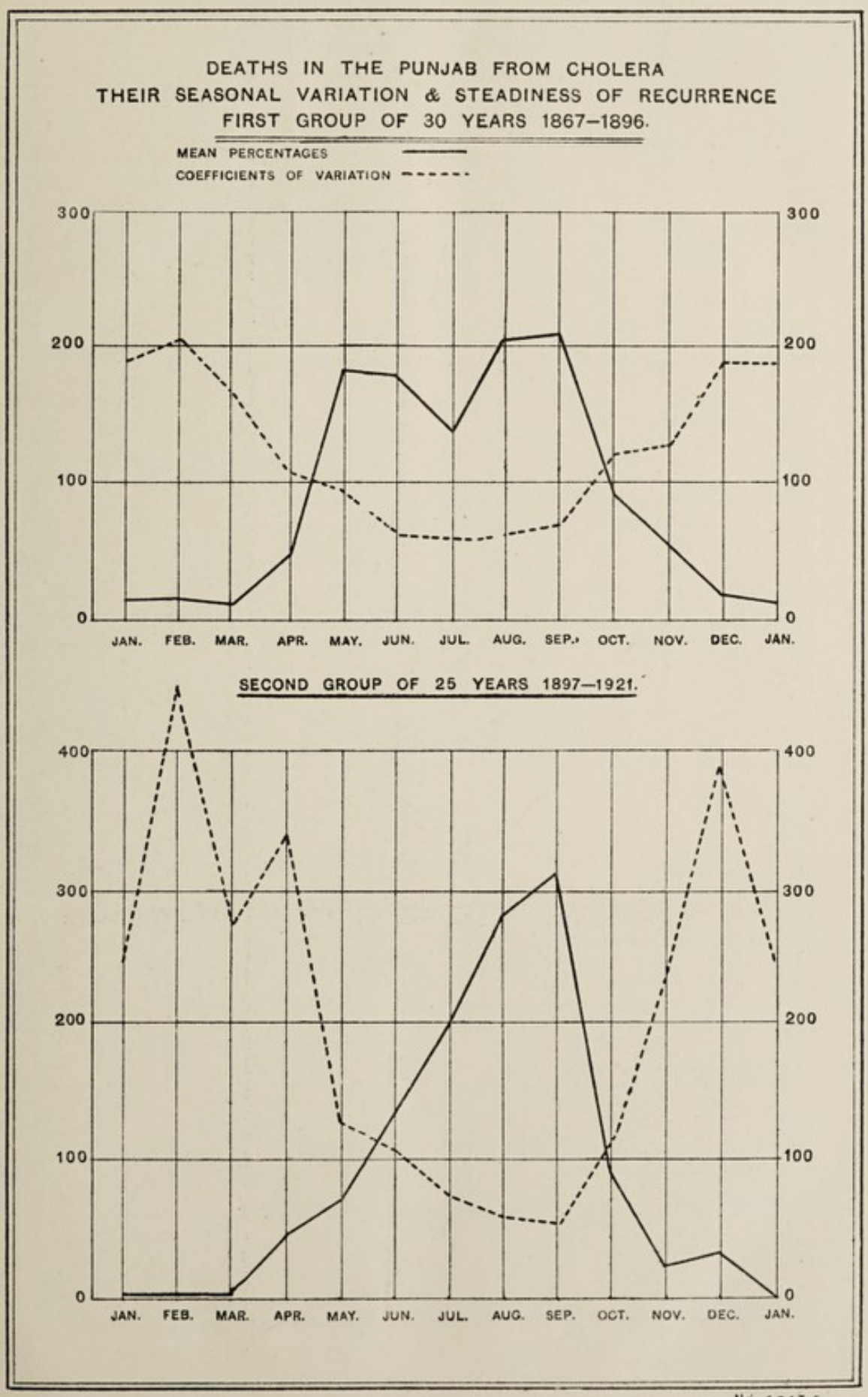
APPENDIX F.



S. MOHD D. MAN
14/3/23

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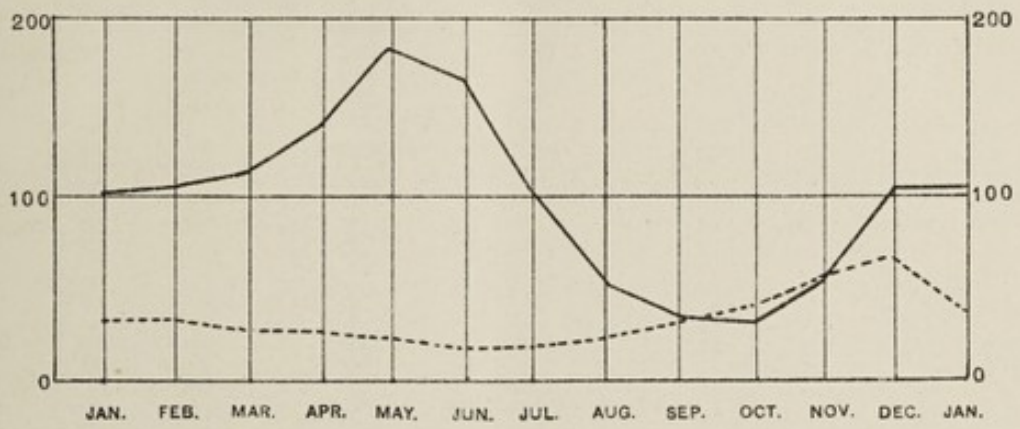
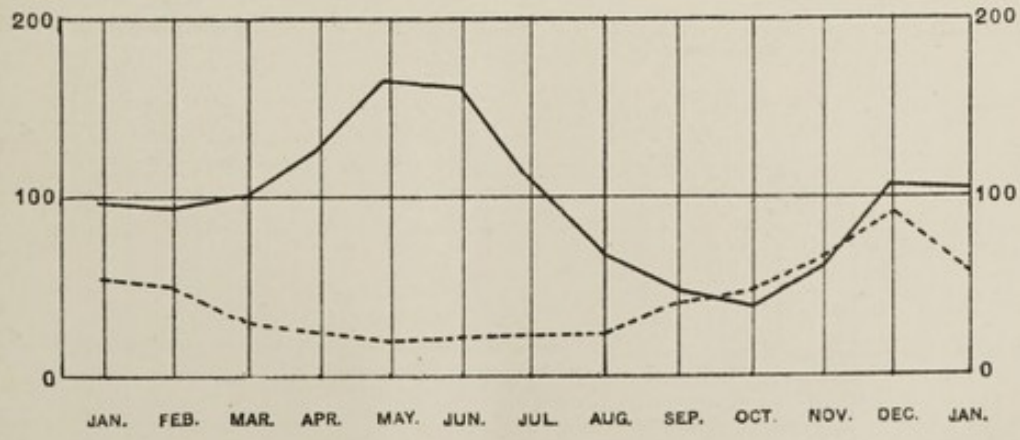
APPENDIX G.

DEATHS IN THE PUNJAB FROM SMALLPOX
THEIR SEASONAL VARIATION & STEADINESS OF RECURRENCE
FIRST GROUP OF 30 YEARS 1867–1896.

MEAN PERCENTAGES ———
COEFFICIENTS OF VARIATION – – – –



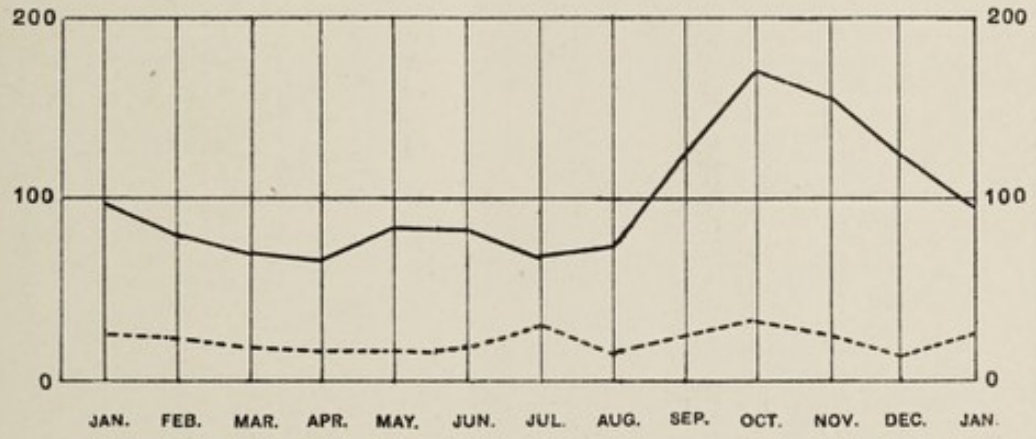
SECOND GROUP OF 25 YEARS 1897–1921.



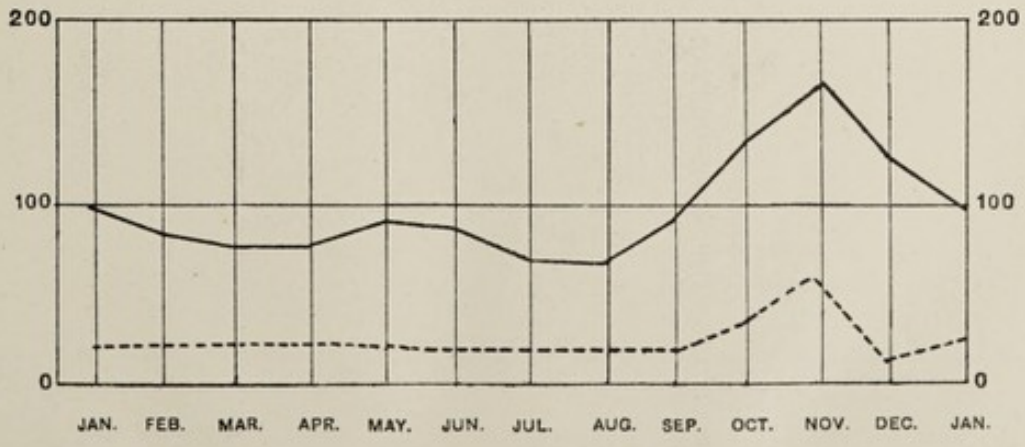
APPENDIX H.

DEATHS IN THE PUNJAB FROM FEVERS
THEIR SEASONAL VARIATION & STEADINESS OF RECURRENCE
FIRST GROUP OF 30 YEARS 1867–1896.

MEAN PERCENTAGES ————
COEFFICIENTS OF VARIATION – – – – –

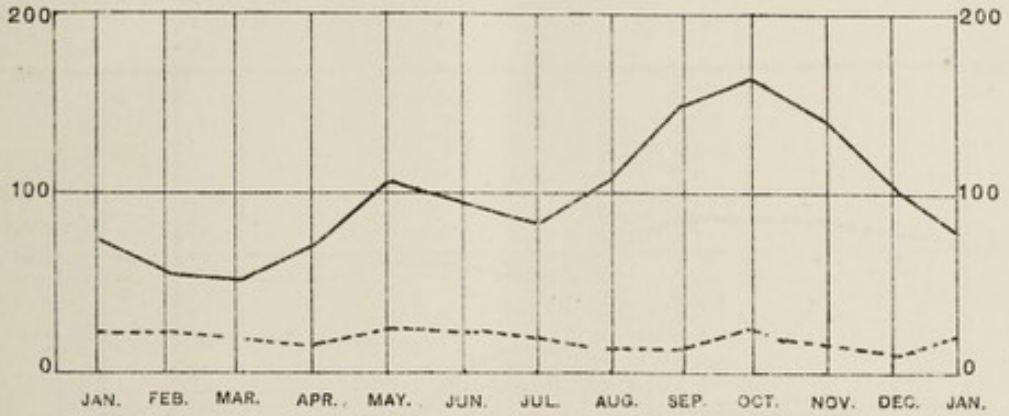


SECOND GROUP OF 25 YEARS 1897–1921.

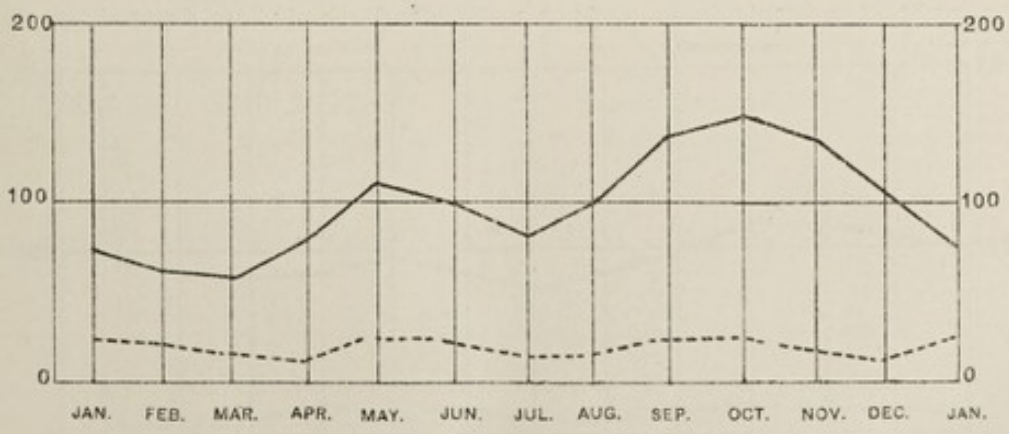


APPENDIX I.

DEATHS IN THE PUNJAB FROM BOWEL COMPLAINTS
THEIR SEASONAL VARIATION & STEADINESS OF RECURRENCE
FIRST GROUP OF 29 YEARS 1868–1896.



SECOND GROUP OF 25 YEARS 1897–1921.



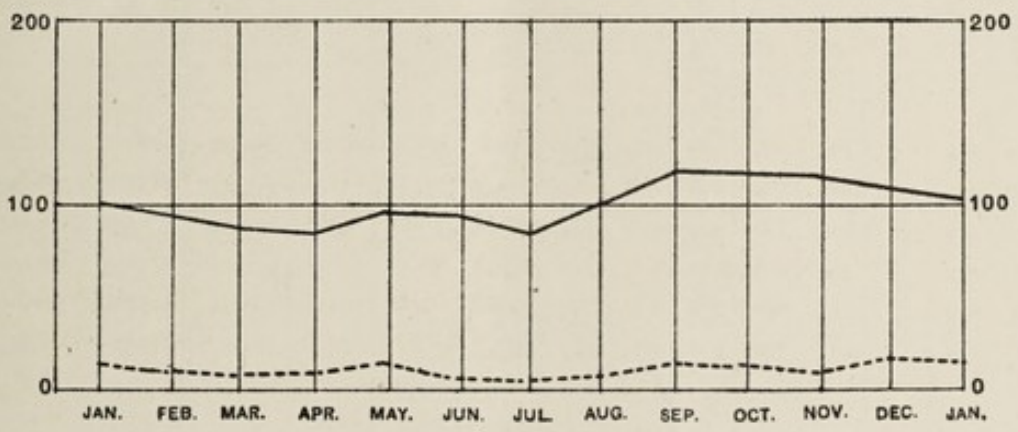
No. 6343

APPENDIX J.

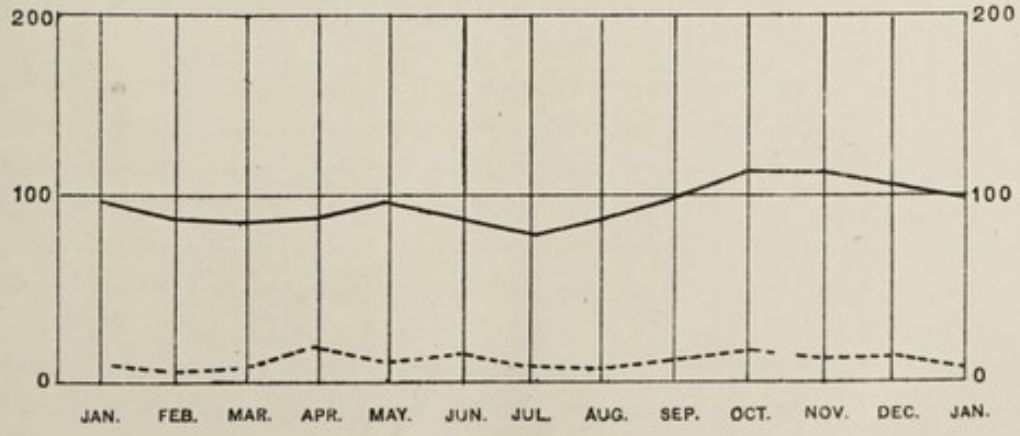
DEATHS IN THE PUNJAB FROM ALL OTHER CAUSES
THEIR SEASONAL VARIATION & STEADINESS OF RECURRENCE
FIRST GROUP OF 30 YEARS 1867–1896.

MEAN PERCENTAGES ———

COEFFICIENTS OF VARIATION - - - - -



SECOND GROUP OF 25 YEARS 1897–1921.



No. 6343-5

ANNUAL FORM No. 1.

STATEMENT SHOWING THE BIRTHS REGISTERED IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1922.

Number.	2	3			4			5			6	7	8	9			10
	Districts.	Population according to Census of 1921.*			Number of births registered.			Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean Ratio of births per 1,000 during previous five years.			Number.
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				Males.	Females.	Total.	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	AMBALA DIVISION.																
	Hissar ...	435,562	381,248	816,810	15,095	13,548	28,643	18·5	16·6	35·0	111·4	12·3	...	22·3	20·1	42·5	1
1	Rohtak ...	417,379	354,893	772,272	17,913	16,181	34,094	23·2	21·0	44·1	110·7	20·9	...	23·5	21·6	45·1	2
2	Gurgaon ...	367,800	314,203	682,003	16,539	15,215	31,754	24·3	22·3	46·6	108·7	19·6	...	24·1	21·7	45·8	3
3	Karnal ...	453,637	375,089	828,726	16,983	15,269	32,252	20·5	18·4	38·9	111·2	8·1	...	23·4	21·0	44·4	4
4	Ambala ...	360,967	280,942	641,909	12,669	11,454	24,123	19·7	17·8	37·6	110·6	10·9	...	21·0	19·1	40·1	5
5	Simla ...	27,599	13,338	40,937	431	428	859	10·5	10·5	21·0	100·7	1·4	...	10·1	8·7	18·7	6
6	JULLUNDUR DIVISION.																
	Kangra ...	393,121	371,626	764,747	12,610	11,558	24,168	16·5	15·1	31·6	109·1	5·0	...	18·5	17·2	35·7	7
7	Hoshiarpur ...	498,662	428,757	927,419	19,570	17,427	36,997	21·1	18·8	39·9	112·3	1·1	...	21·4	19·4	40·8	8
8	Jullundur ...	450,045	363,480	813,525	17,917	16,710	34,627	21·9	20·5	42·4	106·6	20·8	...	22·1	20·7	42·9	9
9	Ludhiana ...	318,845	248,777	567,622	12,653	11,747	24,400	22·3	20·7	43·0	107·7	21·4	...	22·3	20·5	42·8	10
10	Ferozepore ...	598,760	480,547	1,079,307	21,485	18,812	40,297	19·9	17·4	37·3	114·2	15·1	...	20·6	18·3	38·9	11
11	LAHORE DIVISION.																
	Lahore ...	636,596	480,134	1,116,730	24,868	21,853	46,721	22·3	19·6	41·8	113·8	18·7	...	21·6	19·4	41·1	1
12	Amritsar ...	518,500	409,898	928,398	22,821	20,717	43,538	24·6	22·3	46·9	110·2	23·0	...	23·7	21·6	45·3	13
13	Gurdaspur ...	467,576	380,238	847,814	19,948	18,650	38,598	23·5	22·0	45·5	107·0	12·2	...	23·7	21·5	45·2	14
14	Sialkot ...	472,231	396,703	868,934	20,869	18,844	39,713	24·0	21·7	45·7	110·7	22·5	...	23·7	21·7	45·4	15
15	Gujranwala ...	348,695	274,886	623,581	14,327	12,703	27,030	23·0	20·4	43·3	112·8	22·4	...	20·7	8·2	38·9	16
16	Sheikhupura ...	351,259	277,163	628,422	12,334	10,665	22,999	19·6	17·0	36·6	115·6	21·2	...	18·5	16·1	34·6	17
17	RAWALPINDI DIVISION.																
	Gujrat ...	438,550	385,496	824,046	15,582	13,902	29,484	18·9	16·9	35·8	112·1	14·7	...	19·2	17·3	36·5	18
18	Shahpur ...	392,086	327,832	719,918	12,898	11,243	24,141	17·9	15·6	33·5	114·7	14·2	...	18·9	16·5	35·3	19
19	Jhelum ...	240,464	235,104	475,568	8,060	7,080	15,140	16·9	14·9	31·8	11·38	8·5	...	19·3	16·8	36·1	20
20	Rawalpindi ...	292,317	248,376	540,693	8,534	7,755	16,289	15·8	14·3	30·1	110·0	4·9	...	18·7	17·2	35·9	21
21	Attock ...	262,028	246,001	508,029	7,774	6,629	14,403	15·3	13·0	28·4	117·3	8·4		19·0	16·7	35·7	22
22	Mianwali ...	190,021	168,184	358,205	7,146	6,169	13,315	19·9	17·2	37·2	115·8	13·2	...	20·9	18·4	39·4	23
23	MULTAN DIVISION.																
	Montgomery ...	393,372	320,414	713,786	14,992	12,843	27,835	21·0	18·0	39·0	116·7	23·8	...	18·5	16·0	34·5	24
24	Lyallpur ...	522,707	413,235	935,942	24,171	21,806	45,977	25·8	23·3	49·1	110·8	31·1	...	24·0	21·6	45·6	25
25	Jhang ...	305,483	265,076	570,559	12,324	10,978	23,302	21·6	19·2	40·8	112·3	21·9	...	21·2	19·0	40·2	26
26	Multan ...	484,581	399,593	884,174	18,558	16,220	34,778	21·0	18·3	39·3	114·4	22·5	...	19·6	17·0	36·7	27
27	Muzaffargarh ...	308,605	259,873	568,478	8,869	7,519	16,388	15·6	13·2	28·8	118·0	8·9	...	17·7	14·9	32·6	28
28	Dera Ghazi Khan	257,386	211,666	469,052	8,144	6,552	14,696	17·4	14·0	31·3	124·3	10·3	...	15·3	12·6	27·5	29
29	Total ...	11,204,834	9,312,772	20,517,606	425,984	380,477	806,461	20·8	18·5	39·3	112·0	17·2	...	21·1	18·9	40·0	

* Excluding population of military cantonments.

ANNUAL FORM

STATEMENT OF BIRTHS AND DEATHS REGISTERED IN EACH

1	2	3	4	5			6		7		
Number.	Districts.	Area in square miles.	Average population per square mile.	Population (Census 1921).			Births.		Number of deaths registered.		
				Males.	Females.	Total.	Total number.	Birth rate per 1,000 of population.	Males.	Females.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar	5,213	157	435,562	381,248	816,810	28,643	35·0	9,728	8,785	18,513
2	Rohtak	2919	265	417,379	354,893	772,272	34,094	44·1	9,559	8,341	17,900
3	Gurgaon	2,263	301	367,800	314,203	682,003	31,754	46·6	9,678	8,727	18,405
4	Karnal	3,125	265	453,637	375,089	828,726	32,252	38·9	13,685	11,807	25,492
5	Ambala	1,882	341	360,967	280,942	641,909	24,123	37·6	9,212	7,921	17,133
6	Simla	101	405	27,799	13,338	40,937	859	21·0	480	321	801
	JULLUNDUR DIVISION.										
7	Kangra	9,978	77	393,121	371,626	764,747	24,168	31·6	10,621	9,717	20,338
8	Hoshiarpur ...	2,247	413	498,662	428,757	927,419	36,997	39·9	10,914	9,333	20,247
9	Jullundur ...	1,431	568	450,043	363,480	813,523	34,527	42·4	9,078	8,457	17,535
10	Ludhiana ...	1,452	391	318,845	248,777	567,622	24,400	43·0	6,634	6,208	12,842
11	Ferozepore ...	4,286	252	598,760	480,547	1,079,307	40,297	37·3	12,539	11,403	23,942
	LAHORE DIVISION.										
12	Lahore	2,691	415	636,596	480,124	1,116,720	46,721	41·8	13,670	12,066	25,736
13	Amritsar	1,593	583	518,500	409,898	928,398	43,533	46·9	11,706	10,459	22,165
14	Gurdaspur ...	1,889	449	467,576	380,238	847,814	38,508	45·5	10,812	8,965	19,777
15	Sialkot	1,206	721	473,231	396,703	868,934	39,713	45·7	10,720	9,410	20,130
16	Gujranwala ...	2,309	270	348,695	274,886	623,581	27,030	43·3	7,094	5,951	13,045
17	Sheikhupura ...	3,198	197	351,259	277,163	628,422	23,999	36·6	5,268	4,416	9,684
	RAWALPINDI DIVISION.										
18	Gujrat	2,243	322	438,550	385,496	824,046	29,484	35·8	9,354	8,022	17,376
19	Shahpur	4,476	161	392,086	327,832	719,918	24,141	33·5	7,533	6,338	13,871
20	Jhelum	2,773	172	240,464	235,104	475,568	15,140	31·8	5,789	5,297	11,083
21	Rawalpindi ...	2,02[illegible]	267	291,317	248,376	540,693	16,289	30·1	7,267	6,330	13,597
22	Attock	4,117	123	262,028	246,001	508,029	14,403	28·4	5,385	4,758	10,143
23	Mianwali ...	5,395	66	190,021	168,184	358,205	13,311	37·2	4,569	4,009	8,578
	MULTAN DIVISION.										
24	Montgomery ...	4,623	154	393,372	320,414	713,786	27,835	39·0	5,933	4,939	10,872
25	Lyallpur ...	2,759	339	522,707	413,235	935,942	45,977	49·1	8,784	8,068	16,852
26	Jhang ...	3,452	168	305,483	265,076	570,559	23,302	40·8	5,680	5,080	10,760
27	Multan	5,939	149	484,581	399,593	884,174	34,778	39·3	7,867	6,957	14,824
28	Muzaffargarh ...	6,052	94	308,605	259,873	568,478	16,388	28·8	6,189	5,134	11,323
29	Dera Ghazi Khan ...	5,325	88	257,386	211,661	469,012	14,696	31·3	5,488	4,356	9,840
	Total ...	97,280	211	11,204,834	9,312,772	20,517,606	816,461	39·3	241,236	211,571	452,807

NOTE.—Those born dead are not included

No. II.

DISTRICT OF THE PUNJAB DURING THE YEAR 1922.

8	9											10			11
Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from											Mean ratio of deaths per 1,000 during previous five years.			Number.
									All causes.						
	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	Males.	Females.	Total.	Males.	Females.	Total.	
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
110·7	...	0.01	...	17·3	0·4	0·9	0·3	3·8	22·3	23·0	22·7	40·8	46·3	43·4	1
114·3	0·001	0·02	...	16·0	0·2	1·0	0·4	5·6	22·9	23·5	23·2	43·7	51·7	47·4	2
110·9	0·01	0·1	...	15·8	0·4	1·3	0.5	9·0	26·3	27·8	27·0	60·9	71·6	65·8	3
115·9	0·01	0·002	...	24·9	0·1	0·7	0·3	4·8	30·2	31·5	30·8	46·2	52·1	48·9	4
116·3	0·1	0·002	...	12·7	0·5	8·7	...	4·7	25·5	28·2	26·7	42·8	49·5	45·8	5
149·5	0·1	...	...	11·4	1·4	2·3	...	4·5	17·4	24·1	19·6	29·4	39·2	32·6	6
109·3	...	0·01	...	16·8	1·2	5·3	0·3	3·1	27·0	26·2	26·6	42·5	42·3	42·4	7
116·9	0·002	0·1	...	16·1	0·02	2·0	0·2	3·4	21·9	21·8	21·8	34·4	35·7	35·0	8
107·3	0·004	0·04	0·4	14·1	0·3	2·0	0·3	4·5	20·2	23·3	21·6	30·6	37·6	34·8	9
106·9	0·02	0·01	0·002	12·1	0·4	2·6	0·3	7·3	20·8	25·0	22·6	37·2	45·4	40·8	10
110·0	0·003	0·1	...	15·[illegible]	0·2	0·9	0·3	5·5	20·9	23·7	22·2	32·7	36·7	34·4	11
113·3	0·004	0·3	0·03	14·6	0·4	1·8	0·4	5·5	21·5	25·1	23·1	35·0	40·5	37·3	12
111·9	0·002	0·1	0·001	16·1	0·3	2·8	0·3	4·3	22·6	25·5	23·9	37·9	42·8	40·1	13
120·6	...	0·1	0·04	13·6	0·4	8·6	0·3	0·4	23·1	23·6	23·3	39·7	42·7	41·0	14
113·9	...	0·1	1·0	14·7	0·4	1·3	0·2	5·6	22·7	23·7	23·2	36·0	37·9	36·9	15
119·2	0·003	0·4	1·3	14·5	0·1	0·6	0·5	3·5	20·3	21·7	20·9	40·6	44·0	42·1	16
119·3	...	0·1	1·2	10·1	0·02	0·2	0·2	3·5	15·0	15·9	15·4	29·3	31·2	30·1	17
116·6	0·001	0·01	1·6	14·4	0·3	2·0	0·3	2·3	21·3	20·8	21·1	34·5	35·6	35·0	18
118·9	...	0·02	1·6	12·7	0·1	0·2	0·2	4·4	19·2	19·3	19·3	33·0	35·1	34·0	19
109·3	0·002	0·01	3·1	14·3	0·3	1·8	0·5	3·4	24·1	22·5	23·3	40·4	38·8	39·6	20
114·8	0·001	0.03	0·8	16·3	2·7	2·6	0·6	2·3	24·9	25·5	25·2	36·4	39·8	37·9	21
113·2	0·001	0·03	0·2	16·5	0·1	0·9	0·4	2·0	20·6	19·3	20·0	37·0	36·4	36·7	22
114·0	...	0·02	0·1	19·1	0·3	0·9	0·3	3·2	24·1	23·8	24·0	37·8	39·9	38·8	23
120·1	...	0·1	0·1	12·1	0·1	0·2	0·2	2·7	15·1	15·4	15·2	29·9	32·6	31·1	24
108·9	...	0·1	0·3	12·1	0·1	0·6	0·2	4·6	16·8	19·5	18·0	29·5	34·4	31·7	25
111·8	...	0·02	0·2	10·8	0·5	2·0	0·4	4·9	18·6	19·2	18·9	32·6	35·0	33·7	26
113·1	...	0·2	0·03	11·5	0·2	0·9	0·4	3·6	16·2	17·4	16·8	36·1	39·1	37·5	27
120·5	...	0·02	...	17·7	0·1	0·2	0·4	1·5	20·1	19·8	19·9	39·1	39·8	39·4	28
126·1	...	0·04	0·002	18·5	0·2	0·4	0·4	1·4	21·3	20·6	21·0	39·7	40·9	40·2	29
114·0	0.01	0·1	0·4	15·0	0·3	2·0	0·3	4·1	21·5	22·7	22·1	37·4	41·2	39·2	

In this or any other statement.

ANNUAL FORM NO. III.

DEATHS REGISTRED IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1922.

1	2	3												4	5
Number.	District.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.	Number.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	AMBALA DIVISION.														
1	Hissar ...	1,098	934	1,052	1,279	1,670	1,782	1,382	1,360	1,400	2,262	2,301	1,993	18,513	1
2	Rohtak ...	1,020	772	1,089	1,226	1,754	2,122	1,262	1,226	1,442	2,236	2,143	1,608	17,900	2
3	Gurgaon ...	1,126	944	1,224	1,312	1,978	1,815	1,202	1,145	1,475	2,275	2,134	1,775	18,405	3
4	Karnal ...	1,687	1,228	1,373	1,438	2,005	2,663	1,647	1,737	2,263	3,8[illegible]6	3,183	2,462	25,492	4
5	Ambala ...	1,345	1,052	1,134	1,030	1,408	1,636	1,223	1,038	1,567	2,180	2,050	1,665	17,133	5
6	Simla ...	53	54	44	67	64	89	81	61	93	75	54	63	801	6
	JULLUNDUR DIVISION.														
7	Kangra ...	1,780	1,396	1,367	1,271	1,907	1,970	1,570	1,566	1,993	2,195	1,674	1,649	20,338	7
8	Hoshiarpur ...	1,714	1,329	1,372	1,384	1,690	1,824	1,476	1,526	1,852	2,184	1,998	1,898	20,247	8
9	Jullundur ...	1,284	1,133	1,178	1,338	1,397	1,515	1,265	1,527	1,483	1,946	1,837	1,[illegible]32	17,535	9
10	Ludhiana ...	922	775	882	858	1,054	1,068	975	1,025	1,203	1,467	1,396	1,217	12,842	10
11	Ferozepore ...	1,436	1,268	1,346	1,365	1,792	1,983	1,692	1,589	1,543	2,448	3,954	3,523	23,942	11
	LAHORE DIVISION.														
12	Lahore ...	1,673	1,391	1,377	1,438	2,074	2,156	1,910	2,025	2,070	2,9[illegible]8	3,550	3,164	25,736	12
13	Amritsar ...	1,402	1,119	1,277	1,279	1,823	1,983	1,784	2,045	2,078	2,508	2,594	2,193	22,165	13
14	Gurdaspur ...	1,471	1,165	1,095	1,046	1,519	1,584	1,506	1,656	1,904	2,448	2,454	1,9[illegible]9	19,777	14
15	Sialkot ...	1,478	1,223	1,293	1,365	1,622	1,717	1,485	1,652	1,829	2,169	2,314	1,983	20,130	15
16	Gujranwala ...	1,073	906	947	1,257	1,286	1,696	951	1,[illegible]95	934	1,047	1,130	1,323	13,045	16
17	Sheikhupura ...	640	650	603	740	998	803	761	779	822	845	871	1,172	9,684	17
	RAWALPINDI DIVISION.														
18	Gujrat ...	1,828	1,260	1,425	1,582	1,6[illegible]3	1,329	1,115	1,200	1,266	1,459	1,635	1,674	17,876	18
19	Shahpur ...	1,252	1,086	1,197	1,215	1,955	1,211	1,010	818	838	960	1,109	1,220	13,871	19
20	Jhelum ...	1,241	941	924	1,118	1,105	809	628	634	746	871	994	1,075	11,086	20
21	Rawalpindi ...	1,670	1,214	1,242	998	941	883	895	889	885	1,224	1,362	1,394	13,597	21
22	Attock ...	1,091	791	749	692	770	925	699	648	684	899	1,044	1,151	10,143	22
23	Mianwali ...	933	612	689	671	740	765	584	504	548	717	833	982	8,578	23
	MULTAN DIVISION.														
24	Montgomery ...	915	729	711	524	762	868	759	708	766	1,046	1,551	1,533	10,872	24
25	Lyallpur ...	1,264	1,106	1,206	1,368	1,626	1,621	1,349	1,279	1,303	1,549	1,539	1,642	16,852	25
26	Jhang ...	1,022	794	916	796	1,041	917	790	760	755	924	975	1,070	10,760	26
27	Multan ...	1,238	1,130	1,106	936	1,253	1,156	1,048	1,028	1,074	1,334	1,748	1,773	14,824	27
28	Muzaffargarh...	1,244	1,051	988	818	1,001	889	649	634	584	816	1,206	1,443	11,313	28
29	Dera Ghazi Khan	1,046	991	1,142	879	914	813	536	472	490	609	997	951	9,840	29
	Total for the Province.	35,949	29,124	30,945	31,290	39,552	39,992	32,239	32,626	35,890	47,407	50,630	47,160	452,807	
	Ratio of deaths per 1,000 in each month.	1·75	1·42	1·51	1·53	1·93	1·95	1·57	1·59	1·75	2·31	2·47	2·30	·07	

ANNUAL FORM No. IV.

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1922.

ANNUAL FOR

EATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AG

1	2	3									
		Population according to the census of 1921.									
	Districts.	*Muhammadans.*		*Hindus.*		*Indian Christians.*		*Other classes.*		*Total.*	
Number.		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12
1	Hissar ...	112,889	103,054	322,126	277,714	486	431	61	49	435,562	381,2
2	Rohtak ...	65,488	59,547	346,666	290,538	5,188	4,798	37	10	417,379	354,8
3	Gurgaon ...	115,933	100,927	251,172	212,648	609	564	86	64	367,800	314,2
4	Karnal ...	126,916	108,702	324,923	264,803	1,784	1,568	14	16	453,637	375,0
5	Ambala ...	106,123	86,972	252,231	192,265	1,637	1,425	976	280	360,967	280,9
6	Simla ...	4,611	1,244	21,433	10,205	487	329	1,068	1,560	27,599	13,3
7	Kangra ...	21,025	17,210	370,380	352,749	142	142	1,574	1,525	393,121	371,6
8	Hoshirpur ...	155,165	134,133	341,419	292,957	1,982	1,657	96	10	498,662	428,7
9	Jullundur ...	197,011	165,932	250,831	196,055	1,850	1,455	253	38	450,045	363,4
10	Ludhiana ...	106,764	86,197	211,203	161,821	853	729	20	30	318,845	248,7
11	Ferozepore ...	259,451	216,039	336,222	262,804	2,034	1,526	1,053	178	598,760	480,5
12	Lahore ...	357,101	285,983	253,608	174,908	22,458	18,939	3,429	1,204	636,596	480,1
13	Amritsar ...	232,747	190,653	278,793	213,423	6,590	5,636	370	186	518,500	409,8
14	Gurdaspur ...	231,410	190,761	218,188	174,712	17,908	14,635	70	130	467,576	380,2
15	Sialkot ...	288,815	246,325	153,436	125,740	28,670	24,491	1,310	147	472,231	396,7
16	Gujranwala ...	246,243	196,904	87,253	65,839	15,141	12,050	58	63	348,695	274,8
17	Sheikhupura ...	224,231	181,095	110,110	82,532	16,660	13,358	258	178	351,259	277,1
18	Gujrat ...	377,925	331,759	59,348	52,641	1,242	1,046	35	50	438,550	385,4
19	Shahpur ...	323,746	272,354	62,081	50,465	6,209	4,977	50	36	392,086	327,8
20	Jhelum ...	212,844	209,447	27,415	25,528	199	125	6	4	240,464	235,1
21	Rawalpindi ...	241,100	215,743	45,536	31,035	1,661	928	4,020	670	292,317	248,3
22	Attock ...	238,983	224,507	22,741	21,411	115	56	189	27	262,028	246,0
23	Mianwali ...	162,581	146,295	27,153	21,837	123	28	164	54	190,021	168,1
24	Montgomery ...	281,044	232,011	105,548	83,775	5,737	4,600	43	28	393,372	320,4
25	Lyallpur ...	308,897	254,089	190,929	140,499	22,830	18,600	51	47	522,707	413,2
26	Jhang ...	256,594	218,794	48,634	46,088	249	189	6	5	305,483	265,0
27	Multan ...	396,651	332,194	84,408	65,364	2,341	1,999	1,181	136	484,581	399,5
28	Muzaffargarh ...	268,374	224,995	39,951	34,802	72	68	208	8	308,605	259,8
29	Dera Ghazi Khan ...	226,773	184,658	30,585	26,989	19	15	9	4	257,386	211,6
	Total ...	6,147,435	5,217,624	4,875,328	3,952,047	165,276	136,364	16,795	6,737	11,204,834	9,312,7
	Population according to census of 1921.	...	...	...	...	...	...	...	...	...	...
	Ratio per 1,000 living for the Province.	...	...	...	...	...	...	...	...	...	...

. IV.

RIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1922.

4																
UNDER ONE YEAR.																
NOT EXCEEDING ONE MONTH.								OVER ONE MONTH AND NOT EXCEEDING SIX MONTHS.								
Muhammadans.		Hindus.		Indian Christians.		Other Classes		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		
Males.	Females.	Males.	Females.	Males	Females.	Males.	Females	Males.	Females.	Males.	Females	Males.	Females.	Males.	Females.	Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1
287	182	872	765	...	...	...	...	182	169	438	346	...	...	...	...	1
282	234	1,584	1,234	5	...	...	...	88	53	542	476	...		...	...	2
348	375	615	574	...	...	...	...	279	263	602	536	...	...	...	...	3
291	248	785	662	1	...	...	...	486	430	1,198	1,032	1	...	...	...	4
296	237	592	603	...	...	...	...	201	180	532	491	...	...	...	...	5
...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	6
36	44	1,008	801	...	...	...	...	32	36	686	558	...	...	...	...	7
538	318	1,105	1,122	4	...	...	...	251	292	694	471	1	...	...	...	8
859	734	1,124	1,247	...	...	...	...	307	258	302	342	...	...	...	...	9
473	312	594	651	7	3	...	...	268	209	431	468	1	...	...	...	10
1,052	920	954	886	2	1	...	...	364	400	570	411	1	1	...	...	11
1,595	1,388	357	297	19	18	...	...	920	675	197	211	16	15	...	...	12
972	871	1,172	1,071	1	1	...	...	452	403	442	399	10	4	...	...	13
746	551	602	511	19	16	...	...	578	382	382	352	11	13	...	...	14
863	754	421	372	76	68	...	...	600	442	270	214	49	35	...	...	15
833	764	137	58	23	23	5	2	562	526	99	27	17	18	2	3	16
493	357	182	130	29	25	28	19	249	267	132	93	18	12	9	9	17
908	731	121	101	2	...	1	2	611	524	82	75	...	...	...	...	18
901	701	188	156	19	14	69	50	374	218	165	89	6	8	29	23	19
615	543	67	44	...	...	...	...	312	261	26	21	...	1	...	...	20
706	614	112	92	4	...	...	...	381	308	57	58	2	...	1	...	21
617	512	39	24	...	...	4	2	217	188	15	12	...	...	...	...	22
698	560	126	88	...	...	...	...	388	373	6[illegible]	39		...	...	...	23
678	484	211	192	8	6	5	4	392	277	112	94	5	5	2	1	24
996	1,035	696	647	58	10	1	1	679	641	1[illegible]8	177	60	59	2	2	25
729	668	143	120	...	...	...	...	525	531	133	122	1	...	...	...	26
1,311	1,118	271	197	2	2	1	1	588	567	163	131	6	2	2	...	27
427	352	107	103	...	...	...	...	477	425	99	80	...	...	...	...	28
496	376	114	66	...	...	1	1	469	374	72	74	...	...	1	4	29
19,036	15,983	14,299	12,814	284	187	115	82	11,172	9,773	8,639	7,399	205	174	48	42	
Not available.																
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

ANNUAL FORM

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE

4—*concluded.*

UNDER ONE YEAR—CONCLUDED.

Number.	Districts.	Over six months and under twelve months								Total under one					
		Muhammadans.		*Hindus.*		*Indian Christians.*		*Other classes.*		*Muhammadans.*		*Hindus.*		*Indian Christians.*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	29	30	31	32	33	34	35	36	37	38	39	40	41	42
1	Hissar ...	159	179	490	397	1	...	...	...	625	530	1,800	1,508	1	...
2	Rohtak ...	94	54	470	473	1	1	...	...	459	341	2,596	2,183	6	2
3	Gurgaon ...	411	325	602	368	...	...	...	...	1,038	963	1,819	1,478	...	...
4	Karnal ...	197	168	640	509	...	...	...	...	974	846	2,[illegible]23	2,203	2	...
5	Ambala ...	226	196	617	518	...	...	...	...	723	613	1,741	1,612	...	...
6	Simla ...	...	...	...	...	...	...	...	...	...	1	2	...	...	...
7	Kangra ...	38	52	977	740	...	1	...	...	106	132	2,671	2,099	...	1
8	Hoshiarpur ...	211	194	591	483	1	...	...	...	1,000	804	2,390	2,076	6	...
9	Jullundur ...	278	250	351	342	...	...	...	...	1,439	1,242	1,777	1,931	...	...
10	Ludhiana ...	227	261	438	379	1	...	...	...	968	782	1,463	1,498	9	3
11	Ferozepore ...	405	386	591	470	1	1	...	...	1,821	1,706	2,115	1,767	4	3
12	Lahore ...	938	847	238	163	14	17	...	...	3,453	2,910	792	671	49	50
13	Amritsar ...	414	346	410	336	5	10	...	...	1,838	1,620	2,024	1,806	16	15
14	Gurdaspur ..	501	350	503	447	19	10	...	...	1,775	1,288	1,487	1,310	49	39
15	Sialkot ...	565	481	276	256	52	47	...	...	2,028	1,677	967	842	177	150
16	Gujranwala ...	272	352	142	30	12	5	1	1	1,667	1,642	378	115	57	46
17	Sheikhupura ..	312	276	137	117	18	18	11	13	1,054	900	451	340	65	55
18	Gujrat ...	485	451	79	55	1	3	1	...	2,004	1,706	282	231	3	3
19	Shahpur ...	501	484	119	84	12	7	26	23	1,776	1,503	412	329	37	29
20	Jhelum ...	159	144	21	15	...	...	...	...	1,086	948	114	80	...	1
21	Rawalpindi ..	195	200	51	49	1	1	...	...	1,282	1,122	220	199	7	1
22	Attock ...	171	135	17	15	...	...	1	...	1,[illegible]05	835	71	51	...	...
23	Mianwali ...	258	240	45	40	...	...	...	...	1,342	1,173	239	167	...	...
24	Montgomery ...	319	283	196	108	8	7	4	6	1,389	1,044	519	394	21	18
25	Lyallpur ...	501	3[illegible]4	417	388	31	23	...	1	2,176	2,070	1,301	1,212	149	92
26	Jhang ..	589	475	118	106	...	...	...	...	1,833	1,674	394	348	1	...
27	Multan ..	472	413	84	103	6	4	...	...	2,371	2,098	518	431	14	8
28	Muzaffargarh ...	239	248	58	51	...	...	...	...	1,143	1,025	264	234	...	...
29	Dera Ghazi Khan ...	360	324	39	37	...	...	1	...	1,325	1,074	215	177	...	...
	Total ...	9,495	8,508	8,717	7,079	184	155	45	44	39,703	34,264	31,655	27,292	673	516
Population according to census of 1921.		Not available								240,139	232,641	176,259	168,581	7,514	7,241
Ratio per 1,000 living for the Province.										165·38	147·28	179·59	161·89	89·57	71·26

o. IV—CONTINUED.

ERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1922.—CONTINUED.

		5								6				
		ONE YEAR AND UNDER FIVE YEARS.								FIVE YEARS AND UNDER TEN YEARS.				
Other classes.		Muhammadans.		Hindus.		Indian Christians.		Other classes.		Muhammadans.		Hindus.		
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Number.
43	44	45	46	47	48	49	50	51	52	53	54	55	56	1
...	...	516	471	1,723	1,636	...	...	...	...	160	171	487	443	1
...	...	303	196	1,246	1,114	7	2	...	...	128	89	595	491	2
...	...	317	336	1,089	947	...	...	...	...	189	176	387	379	3
...	...	734	656	2,278	2,059	2	2	...	...	60	97	312	332	4
...	...	445	380	984	992	...	...	...	...	131	110	293	236	5
...	...	4	5	13	17	1	...	...	...	...	...	1	...	6
...	...	36	25	777	658	...	...	...	...	30	31	573	467	7
...	...	484	499	1,189	1,131	1	2	...	...	88	111	241	207	8
...	...	585	610	831	839	...	...	...	...	135	140	185	182	9
...	...	196	208	436	300	...	...	...	...	131	156	254	190	10
...	...	1,625	1,462	1,411	1,359	1	1	...	...	386	367	361	353	11
...	...	2,386	2,108	824	848	70	65	...	...	459	443	158	165	12
...	...	1,343	1,244	1,303	1,109	11	9	1	...	204	176	268	243	13
...	...	691	633	811	612	35	32	...	...	378	292	401	295	14
...	...	1,273	1,171	661	612	120	112	...	...	283	285	152	143	15
8	6	1,036	1,067	198	96	34	23	5	2	197	190	87	78	16
48	41	625	573	129	93	40	27	19	16	211	194	91	75	17
2	2	1,479	1,338	180	169	3	3	3	3	447	457	57	43	18
124	96	824	783	140	128	21	15	50	43	348	320	80	69	19
...	...	639	612	77	60	...	...	...	...	276	311	29	29	20
1	...	883	811	124	102	...	1	1	1	319	347	45	42	21
5	2	733	777	51	31	...	...	1	1	314	295	17	10	22
...	...	706	661	91	74	...	...	...	...	191	195	24	18	23
11	11	756	760	291	212	12	10	1	...	276	240	92	56	24
3	4	911	699	753	838	92	80	3	2	271	211	63	114	25
...	...	769	682	82	108	...	...	...	...	348	274	50	67	26
3	1	1,026	974	168	145	4	1	1	...	300	181	93	90	27
...	...	635	633	105	70	...	...	...	...	243	205	25	27	28
3	5	554	454	74	79	...	...	1	2	201	156	17	19	29
208	168	22,514	20,828	17,939	16,438	454	385	86	70	6,714	6,220	5,438	4,363	
52	20	587,475	566,315	430,242	408,415	18,176	17,236	167	98	950,073	831,328	683,426	592,470	
?	?	38·32	36·78	41·70	40·25	24·98	22·34	514·97	714·29	7·07	7·48	7·96	8·21	

ANNUAL FOR

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AG

1	2	6—concluded.				7							
		FIVE YEARS AND UNDER TEN YEARS—CONCLUDED.				TEN YEARS AND UNDER FIFTEEN YEARS.							
	Districts.	Indian Christians		Other classes.		Muhammadans.		Hindus.		Indian Christians.		Other classes	
Number.		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	57	58	59	60	61	62	63	64	65	66	67	68
1	Hissar ...	...	...	...	...	107	101	233	246	...	...	...	...
2	Rohtak ...	2	1	...	...	71	80	355	323	1	...	...	...
3	Gurgaon ...	...	...	...	...	192	163	361	280	...	...	...	...
4	Karnal ...	...	...	...	...	122	128	321	283	...	...	1	...
5	Ambala ...	...	...	...	...	98	86	145	136	...	...	...	...
6	Simla ...	...	...	...	...	1	1	3	4	...	...	...	...
7	Kangra ...	...	...	...	...	29	26	582	491	...	...	...	...
8	Hoshiarpur ...	...	...	...	...	83	71	151	160	...	1	...	...
9	Jullundur ...	...	...	...	...	86	102	103	144	...	...	...	...
10	Ludhiana ...	...	1	...	...	116	129	248	203	...	...	...	...
11	Ferozepore ...	1	1	...	...	253	227	188	240	...	1	...	...
12	Lahore ...	22	16	...	...	302	307	103	112	28	18	...	...
13	Amritsar ...	5	3	...	...	171	157	238	223	3	3	...	...
14	Gurdaspur ...	28	25	...	...	204	162	228	199	27	22	...	...
15	Sialkot ...	27	26	...	...	195	228	104	127	17	21	...	...
16	Gujranwala ...	21	15	1	3	233	189	68	54	18	27	...	
17	Sheikhupura ...	28	15	7	4	161	190	95	65	27	14	10	
18	Gujrat ...	...	1	1	1	299	353	44	51	...	1	...	
19	Shahpur ...	7	5	24	16	247	216	50	39	6	2	22	
20	Jhelum ...	...	...	...	...	216	275	26	25	...	1	...	...
21	Rawalpindi ...	...	...	...	...	242	231	37	48	1	1	...	...
22	Attock ...	...	...	1	...	195	164	19	16	...	...	...	...
23	Mianwali ...	...	...	...	...	103	103	15	16	...	...	...	...
24	Montgomery ...	5	4	...	...	190	176	86	70	2	1	2	
25	Lyallpur ...	10	20	1	1	203	168	59	69	14	10	2	
26	Jhang ...	...	...	...	...	155	132	52	54	...	...	...	...
27	Multan ...	3	2	...	...	189	173	83	71	4	3	...	...
28	Muzaffargarh ...	...	...	...	...	193	152	18	11	...	...	...	...
29	Dera Ghazi Khan ...	...	...	...	...	145	114	21	12	...	...	1	...
	Total ...	159	135	35	25	4,801	4,604	4,036	3,772	148	126	38	
	Population according to census of 1921.	28,011	24,222	158	128	770,738	584,528	591,587	438,614	22,692	16,848	177	
	Ratio per 1,000 living for the Province.	5·68	5·57	221·52	195·31	6·23	7·88	6·82	8·60	6·52	7·48	214·69	183

o. IV—CONTINUED.

RIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1922—CONTINUED.

8								9								
FIFTEEN YEARS AND UNDER TWENTY YEARS.								TWENTY YEARS AND UNDER THIRTY YEARS.								
Muhammadans.		Hindus.		Indian Christians.		Other classes.		Muhammadans.		Hindus.		Indian Christians.		Other classes.		
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males	Females.	Males.	Females.	Number.
69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	1
86	71	120	193	...	...	...	...	161	170	412	491	...	1	...	...	1
90	74	303	343	1	1	...	...	91	75	383	371	1	1	...	...	2
187	178	270	256	...	...	...	...	208	204	465	476	...	...	...	...	3
98	72	301	238	...	...	...	1	339	323	971	932	1	1	...	1	4
84	66	123	142	...	...	...	...	164	147	434	438	...	...	...	...	5
2	...	5	2	...	...	...	...	8	2	14	6	2	1	...	...	6
27	28	592	578	...	...	...	...	40	35	716	804	...	...	...	...	7
57	61	159	240	...	1	...	...	188	190	402	524	...	2	...	...	8
79	85	89	131	.	..	...	...	177	227	241	266	..	...	...	...	9
127	112	266	237	...	...	...	.	139	118	240	251	...	1	...	...	10
168	189	156	179	2	...	...	...	323	337	230	294	2	1	...	...	11
182	248	152	166	20	18	...	...	438	507	343	278	31	24	...	..	12
120	144	186	212	4	2	...	...	247	277	311	343	6	3	...	...	13
168	162	185	165	22	16	...	...	231	199	197	192	15	25	...	...	14
195	201	97	103	15	14	...	..	312	391	170	177	27	34	...	..	15
106	124	52	45	27	23	2	...	265	294	105	107	35	15	5	3	16
158	145	74	60	7	12	5	7	194	156	87	84	18	20	15	8	17
200	194	29	39	1	1	...	...	431	494	68	99	1	2	...	1	18
159	116	40	42	11	5	14	10	380	387	134	101	18	13	39	36	19
156	136	21	26	...	...	...	...	341	404	63	69	...	...	...	...	20
180	155	32	30	...	...	...	1	481	518	55	69	3	2	1	...	21
110	145	18	16	...	...	...	1	369	832	19	38	...	...	...	1	22
68	70	15	21	...	...	..	...	216	230	35	30	...	...	...	.	23
201	173	54	21	3	1	...	...	223	272	65	18	4	3	1	1	24
144	138	37	59	11	16	2	1	285	263	40	67	10	24	...	...	25
98	89	48	62	...	...	...	...	165	170	44	42	...	...	...	...	26
134	185	39	27	3	...	...	...	306	491	75	74	4	2	...	...	27
145	109	19	26	...	...	...	...	417	431	44	74	...	...	...	...	28
119	90	20	24	...	...	...	...	326	363	44	63	...	..	3	2	29
,648	3,560	3,502	3,683	127	110	23	21	7,465	8,057	6,407	6,778	178	175	64	58	
,702	405,557	436,767	317,417	16,312	11,736	182	133	943,910	833,320	812,778	645,[illegible]51	33,066	23,019	374	357	
7·20	8·78	8·02	11·60	7·79	9·37	126·37	157·89	7·91	9·67	7·88	10·49	5·38	7·60	171·12	148·46	

ANNUAL FORM

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE

1	2	10								11			
		THIRTY YEARS AND UNDER FORTY YEARS.								FORTY YEARS AND UNDER			
Number.	District.	*Muhammadans.*		*Hindus.*		*Indian Christians.*		*Other classes.*		*Muhammadans.*		*Hindus*	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	85	86	87	88	89	90	91	92	93	94	95	96
1	Hissar ...	188	191	341	423	...	...	...	...	141	112	445	375
2	Rohtak ...	74	78	382	367	..	1	...	...	95	82	449	399
3	Gurgaon ...	255	271	408	451	...	...	...	...	257	238	397	378
4	Karnal ...	154	145	546	500	.	...	...	...	372	264	1,142	875
5	Ambala ...	192	148	453	443	...	...	...	...	217	147	539	392
6	Simla ...	14	10	61	36	4	3	...	...	30	21	84	60
7	Kangra ...	38	29	794	817	...	...	...	...	35	25	874	869
8	Hoshiarpur ...	192	165	399	436	3	4	...	...	234	144	449	313
9	Jullundur ...	177	180	186	202	...	...	...	...	183	136	189	158
10	Ludhiana ...	107	129	314	316	...	...	...	...	98	105	321	331
11	Ferozepore ...	300	306	298	287	...	2	...	...	286	229	245	238
12	Lahore ...	312	291	311	291	23	18	...	...	265	285	318	174
13	Amritsar ...	231	222	295	238	5	3	...	...	228	179	292	246
14	Gurdaspur ..	234	254	256	223	17	23	...	...	341	290	313	286
15	Sialkot ...	355	330	172	150	30	27	...	...	419	395	238	191
16	Gujranwala ...	181	240	187	100	24	17	1	1	228	130	146	179
17	Sheikhupura ...	193	165	94	86	10	13	5	5	171	147	97	69
18	Gujrat ...	544	462	81	75	4	...	...	...	514	440	57	65
19	Shahpur ...	352	349	88	76	7	9	24	19	331	292	106	72
20	Jhelum ...	471	480	49	54	...	...	...	...	419	367	48	53
21	Rawalpindi ...	628	621	47	42	2	1	...	1	532	448	65	38
22	Attock ...	497	440	19	21	...	...	...	2	442	357	19	24
23	Mianwali ...	225	243	27	32	...	...	...	...	269	212	34	16
24	Montgomery ...	216	260	71	45	1	2	...	...	212	238	60	50
25	Lyallpur ...	269	231	52	69	14	19	3	2	256	217	47	71
26	Jhang ...	154	118	69	78	...	.	...	...	203	174	65	67
27	Multan ...	334	369	124	111	3	4	...	...	324	254	133	102
28	Muzaffargarh .	565	533	46	67	...	...	...	...	544	408	57	34
29	Dera Ghazi Khan ...	479	441	43	43	...	...	1	1	451	339	60	33
	Total ...	7,961	7,751	6,211	6,129	147	146	34	31	8,097	6,675	7,289	6,161
	Population according to census of 1921.	794,114	666,352	643,616	511,228	22,481	17,177	361	265	568,925	486,332	474,779	386,058
	Ratio per 1,000 living for the Province.	10·03	11·63	9·65	11·99	6·54	8·50	94·18	116·98	14·25	13·73	15·35	15·96

. IV—CONTINUED.

RIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1922.—CONTINUED.

				12								13				
TY YEARS.				FIFTY YEARS AND UNDER SIXTY YEARS.								SIXTY YEARS AND UPWARDS.				
ian Christians.		Other classes.		Muhammadans		Hindus.		Indian Christians.		Other classes.		Muhammadans		Hindus.		
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Number.
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	1
...	...	...	...	196	211	431	237	...	...	...	...	329	397	1,[illegible]23	807	1
1	1	...	...	123	64	517	573	...	1	...	...	259	176	1,020	911	2
...	...	...	...	214	187	519	354	...	...	...	...	332	242	774	770	3
...	...	...	...	117	66	376	301	1	1	1	...	507	375	1,329	1,106	4
...	...	...	...	221	144	487	362	...	...	...	...	457	316	1,251	1,011	5
7	8	...	...	65	22	59	69	8	9	...	...	8	3	79	31	6
...	1	...	...	40	39	946	893	...	...	...	...	48	52	1,667	1,615	7
2	1	...	...	225	139	560	345	...	...	...	...	697	466	1,713	1,239	8
...	...	1	...	254	154	286	181	...	...	...	...	1,047	841	1,028	706	9
...		...	...	82	135	391	360	...	...	...	...	201	224	527	418	10
1	1	...	...	315	235	279	228	2	1	...	...	938	691	817	697	11
18	14	...	...	248	247	341	171	18	12	...	...	1,125	824	837	754	12
5	2	...	...	218	153	282	219	6	4	...	...	936	740	995	802	13
28	27	...	...	441	372	423	393	33	32	...	...	843	708	875	648	14
39	35	...		503	413	251	198	47	34	1	...	1,088	778	630	452	15
38	23	...	...	283	183	117	84	23	16	2	1	928	566	293	217	16
16	19	7	8	156	156	103	60	12	12	2	6	565	402	162	128	17
...	...	...	3	570	399	68	53	...	1	...	...	1,736	1,168	242	160	18
14	4	20	21	336	251	67	47	3	2	24	16	965	693	176	124	19
...	...	...	...	422	358	54	37	...	...	...	...	1,133	881	148	90	20
2	...	...	...	523	362	89	55	2	...	...	...	1,283	952	180	129	21
...	...	...	1	427	321	24	22	...	...	3	2	969	737	55	65	22
...	...	...	...	281	214	31	30	...	...	...	...	582	451	72	53	23
2	1	...	...	273	217	85	55	1	1	1	...	334	520	471	62	24
12	12	3	1	270	204	58	61	8	7	3	2	762	437	383	478	26
...	...	...	...	266	197	87	82		...	...	...	681	531	116	131	26
4	1	1	2	301	174	46	89	2	1	...	...	944	718	208	169	27
...	...	...	...	505	298	65	35	...	...	...	...	1,025	648	130	114	28
...	...	1	4	489	253	45	40	...	...	...	1	744	500	94	58	29
189	150	33	40	8,365	6,178	7,190	5,634	166	134	37	28	21,466	16,037	17 525	13,945	
5,069	12,104	264	261	397,365	320,356	339,811	261 590	9,704	7,704	160	156	4,87 197	321,8[illegible]9	334,927	253,383	
12·54	12·39	125·00	153 26	21·05	19·28	21·16	21·54	17·11	17·39	23 1·25	179·49	49·10	45·82	2 32	55·04	

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AG

1	2	13				14					
		SIXTY YEARS AND UPWARDS—CONCLUDED.				TOTAL.					
	Districts.	*Indian Christians.*		*Other classes.*		*Muhammadans.*		*Hindus.*		*Indian Christians*	
Number.		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	113	114	115	116	117	118	119	120	121	122
1	Hissar ...	...	...	...	...	2,512	2,425	7,215	6,359	1	1
2	Rohtak ...	1	1	...	...	1,693	1,255	7,846	7,075	20	11
3	Gurgaon ...	...	...	...	...	3,189	2,958	6,489	5,769	...	...
4	Karnal ...	...	...	1	...	3,477	2,972	10,199	8,829	6	4
5	Ambala ...	...	...	...	...	2,732	2,157	6,480	5,764	...	...
6	Simla ...	5	10	...	...	132	65	321	225	27	31
7	Kangra ...	...	1	...	1	429	422	10,192	9,291	...	3
8	Hoshiarpur ...	1	1	...	...	3,248	2,650	7,653	6,671	13	12
9	Jullundur ...	...	...	...	...	4,162	3,717	4,915	4,740	...	...
10	Ludhiana ...	...	1	...	...	2,165	2,098	4,460	4,104	9	6
11	Ferozepore ...	3	1	...	...	6,425	5,749	6,098	5,642	16	12
12	Lahore ...	42	31	...	...	9,170	8,170	4,179	3,630	321	266
13	Amritsar ...	14	12	...	...	5,536	4,912	6,091	5,491	75	56
14	Gurdaspur ...	46	46	...	...	5,382	4,400	5,130	4,278	300	287
15	Sialkot ...	124	93	3	...	6,651	5,869	3,442	2,995	623	543
16	Gujranwala ...	35	27	3	2	5,124	4,625	1,631	1,075	312	232
17	Sheikhupura ...	40	28	16	11	3,488	3,028	1,383	1,060	263	215
18	Gujrat ...	2	1	2	2	8,224	7,011	1,108	985	14	13
19	Shahpur ...	15	11	42	26	5,718	4,920	1,293	1,027	139	95
20	Jhelum ...	1	...	...	...	5,159	4,772	629	523	1	2
21	Rawalpindi ...	...	...	...	...	6,353	5,567	894	754	17	6
22	Attock ...	...	...	2	1	5,061	4,453	312	294	...	...
23	Mianwali ...	...	...	...	...	3,983	3,552	586	457	...	...
24	Montgomery ...	2	2	...	...	4,070	3,900	1,794	983	53	43
25	Lyallpur ...	99	41	5	6	5,547	4,688	2,793	3,038	419	321
26	Jhang ...	...	...	...	...	4,672	4,041	1,007	1,039	1	...
27	Multan ...	5	5	...	1	6,229	5,617	1,587	1,309	46	27
28	Muzaffargarh ...	...	...	...	...	5,416	4,442	773	692	...	...
29	Dera Ghazi Khan ...	...	...	2	2	4,833	3,784	643	551	...	...
	Total ...	435	312	76	52	130,780	114,219	107,146	94,650	2,676	2,189
	Population according to census of 1921.	11,268	7,482	146	146	...	...	...	...	...	...
	Ratio per 1,000 living for the Province.	38·60	41·70	517·07	356·16	...		...	...	...	...

o. IV—CONCLUDED.

ERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1922—CONCLUDED.

Other classes.		15										
		RATIO OF DEATHS PER 1,000 OF POPULATION.										
		Muhammadans.		*Hindus.*		*Indian Christians.*		*Other classes.*		*Total.*		
Males.	Femles.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Males.	Males.	Females.	Number.
123	124	125	126	127	128	129	130	131	132	133	134	1
...	...	22·25	23·53	22·40	22·90	2·06	2·32	...	...	22·33	23·04	1
...	...	25·85	21·08	22·63	24·35	3·86	2·29	...	...	22·90	23·50	2
...	...	27·51	19·31	25·83	27·13	...	...	...	...	26·31	27·77	3
3	2	27·40	27·34	31·39	33·34	3·36	2·55	214·29	125·00	30·17	31·48	4
...	...	25·74	24·80	25·69	29·98	...	...		...	25·52	28·19	5
...	...	28·63	52·25	14·98	22·05	55·44	94·23	...	...	17·39	24·07	6
...	1	20·40	24·52	27·52	26·34	...	21·13	...	0·66	27·02	26·14	7
...	...	20·93	19·76	22·42	22·77	6·56	7·24	...	...	21·89	21·77	8
1	...	21·13	22·40	19·59	24·18	...	...	2·83	...	20·17	23·27	9
	...	20·28	24·34	21·12	25·36	10·55	8·23	...	...	20·81	24·95	10
...	...	24·76	26·61	18·14	21·47	7·87	7·86	...	...	20·94	23·73	11
...	...	25·68	28·66	16·4[illegible]	20·75	14·29	14·05	...	...	21·47	25·13	12
1	...	23·79	25·76	21·86	25·73	11·38	9·94	2·70	...	22·58	25·52	13
...	...	23·26	23·07	23·51	24·49	16·75	19·61	...	...	23·12	23·58	14
4	...	23·03	23·83	22·43	23·82	21·73	22·29	3·05	...	22·71	23·72	15
27	19	20·81	25·54	18·69	16·32	20·61	19·25	465·52	301·59	20·34	21·65	16
134	113	15·56	16·72	12·56	12·84	15·79	16·10	519·38	634·83	15·00	15·93	17
8	13	21·76	21·13	18·67	18·71	11·27	12·42	228·57	260·00	21·33	20·81	18
383	296	17·66	18·06	20·8[illegible]	20·35	22·39	19·09	?	?	19·21	19·43	19
...	...	24·24	22·78	22·94	20·48	5·03	16·00	...	...	24·70	22·53	20
3	3	26·35	25·80	19·63	24·30	10·22	6·47	0·75	4·48	24·86	25·49	21
12	11	21·18	19·83	13·72	13·73	...	...	63·49	407·40	20·5[illegible]	19·34	22
...	...	24·50	24·28	21·58	20·96	...	...	...	...	24·04	23·84	23
16	13	14·48	16·81	16·84	11·73	9·24	9·35	372·09	464·29	15·08	15·41	24
25	21	17·96	18·45	14·63	21·62	18·35	17·26	490·20	446·81	16·80	19·52	25
...	...	18·21	18·47	20·71	22·54	4·02	...	...	...	18·59	19·16	26
5	5	15·70	16·91	18·80	20·01	19·65	13·51	42·34	29·41	16·23	17·41	27
...	...	20·18	19·74	19·35	19·88	...	...	...	...	20·05	19·76	28
12	17	21·31	20·49	21·02	20·42	...	...	?	?	21·32	20·56	29
634	513	21·27	21·89	21·98	23·95	16·19	16·05	*37·75	*76·15	21·53	22·72	
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	

*Figures incorrect due to misclassification.

NOTE—The population of military cantonments by different ages cannot be excluded as it is not sohwn separately in the census returns.

ANNUAL FORM No. V.

CANCELLED AND INCORPORATED IN ANNUAL FORM No. IV.

ANNUAL FORM No. VI.

DEATHS REGISTERED FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE DISTRICTS (RURAL CIRCLES) OF THE PUNJAB DURING THE YEAR 1922.

ANNUAL FORM

DEATHS REGISTERED FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE

1	2	3	4				5	6	7	8	9	10		
			Births.										Injur	
													Suicide.	
Number.	A—Rural Circles.	Population according to census of 1921.	Male.	Female.	Total.	Birth rate per 1,000 of population.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AMBALA DIVISION.													
1	Hissar ...	728,146	13,263	11,902	25,165	34·46	...	8	...	12,874	172	384	5	9
2	Rohtak ...	696,915	16,196	14,481	30,677	44·02	...	18	...	11,500	90	583	10	52
3	Gurgaon ...	631,068	15,304	14,064	29,368	46·54	5	8	...	10,218	200	699	18	43
4	Karnal ...	747,506	15,079	13,520	28,599	38·26	4	1	...	19,205	34	386	4	5
5	Ambala ...	582,974	11,596	10,462	22,058	37·84	74	1	...	7,552	203	5,311	...	...
6	Simla ...	14,788	177	169	346	23·40	...	...	...	219	14	14	...	...
	JULLUNDUR DIVISION.													
7	Kangra ...	757,572	12,519	11,465	23,984	31·66	...	8	...	12,773	867	4,000	1	4
8	Hoshiarpur ...	865,876	18,379	16,327	34,706	40·11	1	111	...	14,183	9	1,607	7	...
9	Jullundur ...	713,917	15,740	14,695	30,435	42·63	1	27	245	10,250	76	1,055	4	3
10	Ludhiana ...	484,267	10,958	10,082	21,040	43·45	8	1	...	6,238	57	831	4	5
11	Ferozepore ...	986,423	19,891	17,424	37,315	37·83	1	48	...	15,518	194	823	8	7
	LAHORE DIVISION.													
12	Lahore ...	783,169	18,581	16,083	34,664	44·26	1	58	19	11,860	78	491	4	5
13	Amritsar ...	752,251	18,620	16,841	35,461	47·14	1	93	...	12,420	147	1,055	1	1
14	Gurdaspur ...	795,596	18,759	17,543	36,302	45·63	...	30	32	10,755	255	6,884	2	6
15	Sialkot ...	755,558	18,086	16,259	34,345	45·46	...	58	624	11,340	214	735	...	1
16	Gujranwala ...	531,961	12,356	10,967	23,323	43·84	...	62	456	7,890	45	163	...	...
17	Sheikhupura ...	596,008	12,013	10,397	22,410	37·60	...	64	641	6,242	9	146	1	...
	RAWALPINDI DIVISION.													
18	Gujrat ...	778,026	14,544	12,944	27,488	35·33	1	1	966	11,200	193	1,362	1	2
19	Shahpur ...	658,017	11,835	10,229	22,064	33·53	...	13	737	8,308	61	103	3	2
20	Jhelum ...	443,802	7,521	6,570	14,091	31·75	...	6	1,010	6,448	90	707	2	1
21	Rawalpindi ...	483,045	7,482	6,746	14,228	29·45	...	14	356	8,270	1,348	970	4	2
22	Attock ...	490,302	7,421	6,300	13,721	27·99	1	16	112	8,175	32	396	2	...
23	Mianwali ...	328,270	6,571	5,680	12,251	37·32	...	9	2	6,286	55	260	1	...
	MULTAN DIVISION.													
24	Montgomery ...	678,076	14,400	12,363	26,763	39·47	...	52	35	8,239	25	108	1	1
25	Lyallpur ...	898,609	23,736	21,391	45,127	50·22	...	105	299	11,133	82	507	1	...
26	Jhang ...	518,862	10,961	9,711	20,672	39·84	...	6	134	5,573	168	976	1	...
27	Multan ...	785,166	16,429	14,107	30,536	38·89	...	103	24	9,229	38	241	...	
28	Muzaffargarh ...	539,192	8,352	7,044	15,396	28·55	...	10	...	9,563	7	66	2	1
29	Dera Ghazi Khan	428,061	7,301	5,922	13,223	30·89	...	18	...	8,217	55	117	2	2
	Total of the Rural Circles.	18,452,818	384,070	341,688	725,758	39·31	98	949	5,692	281,678	4,818	30,930	89	158

No. VI.

DISTRICTS (RURAL CIRCLES) OF THE PUNJAB DURING THE YEAR 1922.

11				12	13	14										15
...ths.						Ratio of deaths per 1,000 of population.								From all causes.		
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean ratio of previous five years.	Number.
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
186	29	1	230	2,239	15,907	...	0·01	...	17·67	0·24	0·58	0·32	3·07	21·85	43·04	1
176	40	1	279	3,638	16,108	...	0·03	...	16·50	0·13	0·84	0·40	5·22	23·11	47·73	2
194	19	3	277	5,601	17,0[illegible]8	0·01	0·01	...	16·19	0·32	1·11	0·44	8·88	26·95	66·40	3
174	27	1	211	3,199	22,990	0·01	0·001	...	25·69	0·05	0·45	0·28	4·28	30·76	49·05	4
...	...	—	...	2,553	15,694	0·13	0·002	...	12·95	0·35	9·11	...	4·38	26·92	46·18	5
...	...	...	...	66	313	...	...	...	14·81	0·95	0·95	...	4·46	21·17	41·93	6
166	36	2	209	2,323	20,180	...	0·01	...	16·86	1·14	5·28	0·28	3·07	26·64	42·52	7
150	19	4	180	2,887	18,978	0·001	0·13	...	16·39	0·01	1·86	0·21	3·34	21·93	35·22	8
155	4	10	176	3,270	15,100	0·001	0·04	0·34	14·36	0·11	1·48	0·25	4·58	21·15	34·76	9
102	8	15	129	3,664	10,928	0·01	0·002	...	12·88	0·12	1·72	0·27	7·57	22·57	41·54	10
212	29	5	261	5,483	22,828	0·001	0·05	...	15·73	0·20	0·83	0·26	5·56	22·64	35·44	11
210	31	3	253	4,380	17,140	0·001	0·07	0·02	15·14	0·10	0·63	0·32	5·59	21·89	38·17	12
135	12	9	158	3,279	17,153	0·001	0·12	...	16·51	0·20	1·10	0·21	4·36	22·80	38·69	13
162	14	7	191	250	18,397	...	0·04	0·04	13·57	0·32	8·65	0·24	0·31	23·12	41·12	14
127	21	8	157	4,051	17,179	...	0·08	0·83	15·01	0·28	0·97	0·21	5·36	22·74	37·24	15
159	81	6	246	1,603	10,465	...	0·12	0·86	14·83	0·08	0·31	0·46	3·01	19·67	43·18	16
17	84	8	110	2,135	9,34[illegible]	...	0·11	1·08	10·47	0·02	0·24	0·18	3·58	15·68	30·96	17
187	23	5	218	1,945	15,886	0·001	0·001	1·24	14·40	0·25	1·75	0·28	2·50	20·42	34·93	18
113	36	3	157	2,759	12,138	...	0·02	1·12	12·63	0·09	0·16	0·24	4·19	18·45	34·10	19
172	39	2	216	1,470	9,947	...	0·01	2·28	14·53	0·20	1·59	0·49	3·31	22·41	39·87	20
209	30	1	246	850	12,054	...	0·03	0·74	17·12	2·79	2·01	0·51	1·76	24·95	37·03	21
152	16	...	170	893	9,795	0·002	0·03	0·23	16·68	0·07	0·81	0·35	1·81	19·98	36·83	22
84	7	...	92	1,061	7,765	...	0·03	0·01	19·15	0·17	0·79	0·28	3·23	23·65	39·15	23
58	51	...	111	1,764	10,334	...	0·08	0·05	12·15	0·04	0·16	0·16	2·60	15·24	31·35	24
146	10	5	162	4,238	16,526	...	0·12	0·33	12·39	0·09	0·56	0·18	4·72	18·39	32·38	25
181	36	5	223	2,374	9,454	...	0·01	0·26	10·74	0·32	1·88	0·43	4·57	18·22	41·84	26
240	72	3	316	2,537	12,488	...	0·13	0·03	11·75	0·05	0·31	0·40	2·23	15·90	36·34	27
147	85	...	235	723	10,604	...	0·02	...	17·74	0·01	0·12	0·44	1·34	19·67	39·68	28
105	50	...	159	476	9,042	...	0·04	...	19·20	0·13	0·27	0·37	1·11	21·12	40·35	29
4,119	904	107	5,372	71,711	401,248	0.01	0·05	0·31	15·26	0·26	1·68	0·29	3·89	21·74	39·28	

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE TOW

1	2	3	4				5	6	7	8	9	10	
			Births.										
Number.	B.—Towns.	Population according Census of 1921.	Males.	Females.	Total.	Birth rate per 1,000 of population.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Su Males.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	HISSAR DISTRICT.												
1	Hissar	21,4 5	448	392	840	39·22	...	2	...	322	38	87	...
2	Hansi	15,425	336	312	648	42·00	...	...	...	178	23	60	...
3	Bhiwani	33,270	698	639	1,337	40·19	...	...	...	411	55	129	
4	Sirsa	16,241	308	273	581	35·77	...	...	...	277	29	59	...
5	Fattehabad	2,313	42	30	72	31·13	...	...	...	42	1	3	...
	ROHTAK DISTRICT.												
6	Rohtak	25,240	511	550	1,061	42·04	1	...	...	291	7	53	...
7	Jhajjar	10,830	281	246	527	48·79	...	...	...	56	12	38	...
8	Beri	7,454	204	207	411	55·14	...	...	...	70	28	19	
9	Gohana	5,107	140	131	271	53·06	...	...	...	80	...	17	1
10	Bahadurgarh	5,955	140	146	286	48·03	...	...	...	103	2	10	1
11	Sonepat	12,981	278	278	556	42·83	...	...	...	169	10	30	...
12	Mehm	7,820	163	142	305	39·00	...	...	...	85	6	44	...
	GURGAON DISTRICT.												
13	Rewari	23,129	530	478	1,008	43·58	.	...	...	98	28	82	...
14	Palwal	9,352	237	248	485	51·36	...	...	...	168	17	34	1
15	Firozpur ...	4,542	100	99	199	43·81	...	32	...	53	2	2	...
16	Hodal	5,854	177	132	309	52·78	...	...	...	124	1	...	...
17	Ballabgarh	3,721	96	98	194	52·14	...	...	...	72	4	11	...
18	Faridabad	4,337	95	96	191	44·04	...	3	...	54	3	26	...
	KARNAL DISTRICT.												
19	Karnal	22,845	521	483	1,004	43·95	1	...	...	479	35	70	...
20	Kaithal	15,477	408	334	742	47·93	...	1	..	299	8	37	...
21	Panipat	27,343	683	680	1,363	49·85	1	...	...	471	9	96	...
22	Shahabad	11,329	243	202	445	39·28	..	..	...	88	7	52	...
23	Thanesar	4,226	49	50	99	23·43	2	...	...	97	...	1	...
	AMBALA DISTRICT.												
24	Ambala	28,581	487	446	933	32·64		...	...	252	29	127	...
25	Jagadhri	11,544	236	208	444	38·46	...	...	...	219	18	58	...
26	Burya	3,574	59	55	114	31·89	...	...	...	41	4	9	...
27	Sadhaura	7,630	152	161	313	41·02	...	...	...	40	6	74	...
28	Rupar	7,606	139	122	261	34·32	4	...	..	63	29	29	...
	SIMLA DISTRICT.												
29	Simla	26,149	254	259	513	19·62	3	...	...	246	42	78	...
	KANGRA DISTRICT.												
30	Kangra	3,581	37	46	83	23·18	...	...	...	31	8	29	...
31	Dharmsala	3,065	51	41	92	30·02	...	...	...	29	5	27	...
32	Palampur	529	3	6	9	17·01	...	...	...	4	...	5	...
	HOSHIARPUR DISTRICT.												
33	Hoshiarpur	21,285	414	422	836	39·28	1	6	..	183	4	125	...
34	Khanpur	2,701	59	50	109	40·36	...	1	...	34	1	13	...
35	Hariana	5,205	86	68	154	29·59	...	...	...	72	...	15	...
36	Garhdiwala	5,196	53	33	86	16·55	...	2	...	21	..	10	...
37	Dasuyah	3,889	145	140	285	73·28	...	...	...	65	...	18	...
38	Tanda Urmar	8,362	193	153	346	41·38	...	2	...	129	1	55	...
39	Miani	4,934	83	80	163	33·04	...	1	...	72	...	12	...
40	Mukerian	2,346	52	45	97	41·35	...	...	...	38	...	6	...
41	Una	4,603	71	60	131	28·46	...	2	...	51	...	13	...
42	Anandpur ...	3,522	35	49	84	23·85	...	...	...	48	1	7	...
	JULLUNDUR DISTRICT.												
43	Jullundur	19,085	1,294	1,291	2,585	43·75	2	...	70	676	98	399	...
44	Kartarpur	8,512	198	168	366	43·00	...	...	...	102	15	45	...
45	Bangah	5,089	93	78	171	33·60	...	3	...	55	11	8	...
46	Rahon	5,947	116	113	229	38·51	...	...	...	105	5	12	...
47	Phillour	4,696	77	87	164	34·92	...	...	...	65	6	34	...
48	Nurmahal	6,845	135	122	257	37·55	...	...	...	82	8	43	...
49	Nakodar	9,434	164	156	320	33·92	...	3	...	91	8	27	...

. VI.

THE PUNJAB DURING THE YEAR 1922.

				12	13	14										15
ies.						Ratio of deaths per 1,000 of population.										
	Snake-bite and killed by wild beasts.	Rabies.	Total.	All others causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All others causes.	From all causes. For the year.	From all causes. Mean ratio of previous five years.	Number.
6	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
3	...	...	3	193	645	...	0·09	...	15·04	1·77	4·06	0·14	9·01	30·12	42·06	1
1	...	...	1	172	434	...	...	...	11·54	1·49	3·89	0·06	11·15	28·14	52·11	2
17	2	...	19	376	990	...	...	...	12·35	1·65	3·88	0·57	11·30	29·76	50·19	3
2	...	...	2	106	473	...	...	...	17·08	1·79	3·63	0·12	6·53	29·12	41·57	4
.	...	...	...	18	64	...	...	...	18·16	0·43	1·30	...	7·78	27·67	29·13	5
1	...	...	1	162	515	0·04	...	...	11·53	0·28	2·10	0·04	6·42	20·40	39·42	6
.	...	...	...	149	255	...	...	...	5·19	1·11	3·52	...	13·80	23·61	52·54	7
1	...	...	1	76	194	...	...	...	9·39	3·76	2·55	0·13	10·20	26·03	69·12	8
1	2	...	5	93	195	...	...	...	15·66	...	3·33	0·98	18·21	38·18	56·59	9
.	...	...	2	23	140	...	...	...	17·30	0·34	1·68	0·34	3·86	23·51	54·31	10
2	1	...	3	144	326	...	...	...	13·02	0·77	2·31	0·23	8·78	25·11	43·13	11
1	...	...	1	31	167	...	...	...	10·37	0·77	5·63	0·13	3·96	21·36	Not available.	12
13	...	...	16	318	537	...	...	...	4·02	1·21	3·55	0·69	13·75	23·22	44·49	13
5	3	...	9	98	326	...	...	...	17·96	1·82	3·64	0·96	10·48	34·86	71·75	14
.	...	...	...	39	128	...	7·05	...	11·67	0·44	0·44	...	8·59	28·18	85·29	15
8	1	...	9	54	188	...	...	...	21·18	0·17	...	1·54	9·22	32·11	68·16	16
1	1	...	2	27	116	...	...	...	19·35	1·07	2·96	0·54	7·26	31·17	58·53	17
.	...	...	...	16	102	...	0·69	...	12·45	0·69	5·99	...	3·69	23·51	63·92	18
.		...	...	290	875	0·04	...	...	20·97	1·53	3·06	...	12·69	38·30	49·64	19
1	...	...	1	97	443	...	0·06	...	19·32	0·52	2·39	0·06	6·27	28·62	43·48	20
2	...	...	2	229	799	0·04	...	...	17·23	0·33	3·51	0·07	8·05	29·22	52·16	21
2	...	...	2	94	243	...	...	...	7·77	0·62	4·59	0·18	5·30	21·45	38·08	22
2	...	...	2	40	148	0·47	...	...	23·43	...	0·24	0·47	9·47	33·60	39·42	23
.	...	...	...	152	560	...	...	...	8·82	1·01	4·44	...	5·32	19·59	34·60	24
.	...	...	...	116	411	...	...	...	18·97	1·56	5·02	...	10·05	35·60	57·52	25
.	...	...	...	46	109	...	...	...	11·47	1·12	2·52	...	12·87	27·98	64·63	26
.	...	...	...	76	196	...	...	...	5·24	0·79	9·70	...	9·96	25·69	39·66	27
.	...	...	...	47	172	0·53	...	...	8·28	3·81	3·81	...	6·18	22·61	34·89	28
.	...	...	...	119	488	0·11	...	...	9·41	1·61	2·98	...	4·55	18·66	27·35	29
1	...	...	1	8	77	...	...	...	8·66	2·23	8·10	0·28	2·23	21·50	37·20	30
.	...	...	...	7	68	...	...	...	9·46	1·63	8·81	...	2·28	22·19	25·52	31
.	...	...	...	4	13	...	...	...	7·56	...	9·45	...	7·56	24·57	Not available.	32
4	1	...	5	114	438	0·05	0·28	...	8·60	0·19	5·87	0·23	5·36	20·58	29·18	33
1	...	...	1	14	64	...	0·37	...	12·59	0·37	4·81	0·37	5·18	23·69	29·47	34
2	...	...	2	7	96	...	...	...	13·83	...	2·88	0·38	1·34	18·44	27·13	35
.	...	...	...	14	47	...	0·38	...	4·04	...	1·92	...	2·69	9·05	18·01	36
3	...	1	4	24	111	...	...	...	16·71	...	4·63	1·03	6·17	28·54	62·53	37
.	...	...	...	11	198	...	0·24	...	15·43	0·12	6·58	...	1·32	23·68	35·09	38
1	...	...	1	9	95	...	0·20	...	14·59	...	2·43	0·20	1·82	19·25	38·18	39
4	...	...	4	12	60	...	...	...	16·20	...	2·56	1·71	5·12	25·58	51·66	40
2	...	...	2	27	95	...	0·43	...	11·08	...	2·82	0·43	5·87	20·64	26·68	41
1	...	...	1	8	65	...	...	...	13·63	0·28	1·99	0·28	2·27	18·45	29·48	42
30	...	3	34	253	1,532	0·03	...	1·18	11·44	1·66	6·75	0·53	4·28	25·93	32·73	43
1	...	...	1	43	206	...	...	...	11·98	1·76	5·29	0·12	5·05	24·20	39·57	44
1	...	...	1	25	103	...	0·59	...	10·81	2·16	1·57	0·20	4·91	20·24	28·06	45
2	...	...	2	22	146	...	...	...	17·66	0·84	2·02	0·34	3·70	24·55	43·82	46
5	...	...	5	22	132	...	...	...	13·85	1·28	7·24	1·06	4·68	28·11	49·06	47
3	...	...	3	8	142	...	...	...	11·98	1·17	3·28	0·44	0·88	20·75	39·82	48
2	...	...	2	43	174	...	0·32	...	9·65	0·85	2·86	0·21	4·56	18·44	37·54	49

ANNUAL FORM

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE TOWN

1	2	3	4				5	6	7	8	9	10		
Number.	B.—Towns.	Population according to Census of 1921.	Births.				Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide	
			Males.	Females.	Total.	Birth rate per 1,000 of population.							Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	LUDHIANA DISTRICT.													
50	Ludhiana	51,880	1,018	1,023	2,041	39·34	4	1	1	283	125	494	...	...
51	Jagraon	17,731	417	381	798	45·01	...	...	...	159	9	117	1	...
52	Raekot	8,379	170	187	357	42·61	...	...	...	124	8	15	...	...
53	Khanna	5,365	90	74	164	30·57	...	1	...	38	6	28	...	...
	FEROZEPORE DISTRICT.													
54	Ferozepore ...	29,695	546	467	1,013	34·11	1	2	...	319	17	69	...	...
55	Zira	4,622	102	99	201	43·49	...	...	...	44	2	5	...	...
56	Dharmkot	5,960	139	108	247	41·44	...	...	...	46	4	14	...	...
57	Muktsar	10,539	243	185	428	40·61	1	...	...	84	9	37	...	...
58	Fazilka	13,829	251	276	527	38·11	...	...	...	302	19	26	...	...
59	Moga	14,145	151	128	279	19·72	...	...	...	47	4	18	...	...
60	Abohar	8,916	140	98	238	26·69	...	...	...	67	9	6	...	...
61	Gidarbaha	5,178	22	27	49	9·46	...	...	...	4	...	1	...	...
	LAHORE DISTRICT.													
62	Lahore	257,295	4,564	4,238	8,802	34·21	4	286	8	3,343	299	1,301	4	1
63	Chunian	7,642	164	168	332	43·44	...	...	2	132	2	26	...	...
64	Khudian	3,344	87	79	166	49·64	...	...	...	141	13	36	...	...
65	Kasur	31,018	693	593	1,286	41·46	...	4	...	394	35	84	1	...
66	Khem Karn	6,152	179	125	304	49·41	...	...	...	69	3	22	...	...
67	Patti	10,439	231	219	450	43·11	...	...	...	124	8	22	...	...
68	Baghbanpura Bhogiwal ...	10,251	233	232	465	45·36	...	15	...	168	3	20	...	...
69	Ichhra	3,584	66	44	110	30·69	...	...	...	18	2	4	...	...
70	Pattoki Mandi	3,836	70	72	142	37·02	...	1	...	55	2	1	...	...
	AMRITSAR DISTRICT.													
71	Amritsar	157,031	3,818	3,501	7,319	46·61	1	16	1	2,254	96	1,549	...	...
72	Majitha	5,664	128	97	225	39·72	...	...	...	103	2	19	...	...
73	Jandiala	7,464	158	168	323	43·68	...	...	...	101	5	3	...	...
74	Tarn Taran	5,988	97	110	207	34·57	...	1	...	35	15	15	...	...
	GURDASPUR DISTRICT.													
75	Gurdaspur	8,906	161	139	300	33·69	...	...	...	73	16	54	...	...
76	Dinanagar	4,047	99	91	190	46·95	...	...	...	64	10	43	...	...
77	Pathankot	7,353	161	134	295	40·12	...	...	...	111	10	101	...	...
78	Dalhousie	1,457	9	8	17	11·67	...	...	...	7	...	9	...	...
79	Batala	26,122	675	641	1,316	50·38	...	15	1	474	45	193	...	...
80	Dera Nanak	4,333	84	94	178	41·08	...	...	...	47	...	38	...	...
	SIALKOT DISTRICT.													
81	Sialkot	56,018	1,501	1,416	2,917	52·07	...	15	48	702	81	268	...	...
82	Daska	6,283	137	148	285	45·36	...	3	21	78	7	13	...	...
83	Jamke	3,621	84	69	153	42·25	...	...	112	47	4	10	...	...
84	Pasrur	6,909	167	163	330	47·76	...	...	...	77	2	15	...	...
85	Zaffarwal	3,873	85	83	168	43·38	...	4	...	37	2	11	...	...
86	Narowal	5,343	77	86	163	30·51	...	...	...	51	5	1	...	...
87	Samberial	3,324	82	66	148	44·52	...	1	18	39	3	4	...	...
88	Sahowala	3,410	76	71	147	43·11	...	9	2	40	1	1	...	...
89	Begowala	3,697	91	87	178	48·15	...	...	...	47	...	1	...	...
90	Bhopalwala	3,767	64	64	128	33·98	...	...	1	38	1	3	...	...
91	Mitranwali	3,177	91	72	163	51·31	...	...	...	65	1	5	...	...
92	Badomali	2,849	59	39	98	34·40	...	...	...	47	...	2	...	...
93	Kalaswala	2,846	87	82	169	59·38	...	...	...	29	6	10	...	...
94	Daud	3,285	64	52	116	35·31	...	...	...	68	...	1	...	...
95	Chawinda	4,979	118	87	205	41·17	...	...	...	30	1	22	...	...
	GUJRANWALA DISTRICT.													
96	Gujranwala	37,887	925	793	1,718	45·35	...	159	21	583	11	99	...	1
97	Wazirabad	18,645	339	286	625	33·52	...	1	327	215	11	52	...	...
98	Eminabad	5,816	119	99	218	37·48	...	...	1	71	3	7	...	...
99	Kila Didar Singh ...	2,544	61	54	115	45·20	...	4	...	18	...	5	...	...
100	Akalgarh	5,147	102	114	216	41·97	...	2	...	23	...	15	...	...
101	Ramnagar	4,632	89	77	166	25·04	...	...	1	70	10	7	...	...
102	Sohdara	4,250	103	101	204	48·00	...	...	32	74	1	4	...	...
103	Hafizabad	8,854	159	134	293	33·09	1	...	...	54	3	13	...	...
104	Pindi Bhattian	3,845	74	78	152	39·53	1	...	...	42	4	13	...	...
	SHEIKHUPURA DISTRICT.													
105	Khangah Dogran ...	5,201	47	33	80	15·38	...	...	...	13	...	...	...	...
106	Sangla	5,961	54	45	99	16·61	...	1	1	8	...	1	...	...
107	Sharakpur	4,127	89	73	162	39·25	...	...	...	55	...	2	...	...
108	Shahkot	1,545	22	16	38	24·60	...	...	...	21	...	8	...	...
109	Chuharkana Mandi ...	3,847	29	29	58	15·08	...	...	...	3	...	3	...	...
110	Nankana Sahib	11,733	80	72	152	12·95	...	...	111	31	1	...	...	...

o. VI—CONTINUED.

F THE PUNJAB DURING THE YEAR 1922.

				12	13	14										15
TRIBS.						RATIO OF DEATHS PER 1,000 OF POPULATION.										
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all causes. For the year.	From all causes. Mean ratio of previous five years.	Number.
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
9	...	1	10	238	1,156	0·08	0·02	0·02	5·45	2·41	9·52	0·19	4·59	22·28	36·27	50
12	...	1	15	135	435	...	...		8·97	0·51	6·60	0·85	7·61	24·53	40·73	51
2	...	...	2	71	220	...	...	...	14·80	0·95	1·79	0·24	8·47	26·26	36·45	52
1	...	...	1	29	103	...	0·19	...	7·08	1·12	5·22	0·19	5·41	19·20	25·76	53
1	...	1	2	107	517	0·03	0·07	...	10·74	0·57	2·32	0·07	3·60	17·41	25·71	54
1	...	...	1	42	94	...	...	...	9·52	0·43	1·08	0·22	9·09	20·34	41·89	55
5	...	...	5	90	159	...	...	...	7·72	0·67	2·35	0·84	15·0	26·68	35·97	56
4	...	...	4	45	180	0·09	...	...	7·97	0·85	3·51	0·38	4·27	17·08	30·46	57
4	...	...	4	52	403	...	...	...	21·84	1·37	1·88	0·29	3·77	29·14	45·67	58
5	...	...	5	67	141	...	...	...	3·32	0·28	1·27	0·35	4·74	9·97	Not available	59
1	...	...	1	21	104	...	...	...	7·51	1·01	0·67	0·11	2·36	11·66		60
1	...	...	1	10	16	...		...	0·77	...	0·19	0·19	1·93	3·09		61
154	5	4	163	1,372	6,781	0·02	1·11	0·03	12·99	1·16	5·06	0·65	5·33	26·35	35·09	62
4	1	1	6	78	246	...	...	0·26	17·27	0·26	3·40	0·79	10·21	32·19	53·02	63
1	...	...	1	33	224	...	...	...	42·16	3·89	10·77	0·30	9·87	66·99	45·69	64
8	...	...	9	115	641	...	0·13	...	12·70	1·13	2·71	0·29	3·71	20·67	34·57	65
...	...	...	...	40	134	...	...	...	11·22	0·49	3·58	...	6·50	21·78	35·66	66
2	1	...	3	57	214	...	...		11·88	0·77	2·11	0·29	5·46	2[illegible]·50	33·78	67
6	...	...	6	45	257	...	1·46	...	1[illegible]·39	0·29	1·95	0·59	4·39	25·07	3[illegible]·29	68
...	...	...	...	10	29	...	...	...	3·63	0·56	1·12	...	2·79	8·09	Not available	69
5	...	...	5	6	70	...	0·26	...	14·34	0·52	0·26	1·30	1·56	3·25		70
87	3	...	90	639	4,676	0·01	0·10	0·01	14·15	0·61	9·86	0·57	4·07	29·78	47·83	71
...	...	...	...	20	144	...	...	...	18·19	0·35	3·35	...	3·53	25·42	37·25	72
2	...	...	2	6	117	...	...	...	13·53	0·67	0·40	0·27	0·80	15·68	33·20	73
2	...	...	2	7	75	...	0·17	...	5·85	2·51	2·51	0·33	1·17	12·53	24·88	74
3	1	...	4	9	156	...	...	...	8·20	1·80	6·06	0·45	1·01	17·52	23·69	75
3	...	...	3	10	130	...	...	...	15·81	2·47	10·63	0·74	2·47	32·12	53·52	76
2	...	...	2	16	240	...	...	...	15·10	1·36	13·74	0·27	2·18	32·64	51·76	77
1	...		1	3	20	...	...	...	4·80	...	6·18	0·69	2·06	13·73	21·69	78
7	...	...	7	27	745	...	0·57	0·04	18·15	0·96	7·50	0·27	1·03	28·52	41·64	79
...	...	...	...	4	89	...	...	...	10·85	...	8·77	...	0·92	20·54	33·51	80
5	1	...	6	554	1,674	...	0·27	0·86	12·53	1·45	4·78	0·11	9·89	29·88	34·90	81
...	...	...	...	41	103	...	0·48	3·34	12·41	1·11	2·07	...	6·53	25·94	27·15	82
...	...	...	...	25	198	...	...	30·93	12·98	1·10	2·76	...	6·90	54·68	34·02	83
1	...	...	1	28	123	...	...	...	11·14	0·29	2·17	0·14	4·05	17·80	35·37	84
...	...	...	...	28	82	...	1·03	...	9·55	0·52	2·84	...	7·23	21·17	31·76	85
...	...	...	...	17	7[illegible]	...	...	...	9·55	0·56	0·19	...	3·18	13·48	33·91	86
...	...	...	...	12	77	...	0·30	5·42	1[illegible]·73	0·90	1·20	...	3·61	2[illegible]·16	47·59	87
...	...	...	...	18	71	...	2·64	0·59	11·73	0·29	0·29	...	5·28	20·82	35·48	88
...	...	...	...	15	63	...	...	...	12·71	...	0·27	...	4·06	17·04	41·55	89
...	...	...	...	15	58	...	...	0·27	10·09	0·27	0·80	...	3·98	15·40	27·98	90
...	...	...	...	18	89	...	...	...	20·46	0·31	1·57	...	5·67	28·01	36·13	91
1	...	...	1	2	52	...	...	...	16·50	...	0·70	0·35	0·70	1[illegible]·25	29·98	92
...	...	...	...	24	69	...	...	...	10·19	2·11	3·51	...	8·43	24·24	34·26	93
1	...	...	1	5	70	...	...	...	19·18	...	0·30	0·30	1·52	21·31	46·27	94
...	...	...	...	37	90	...	...	...	6·03	0·20	4·42	...	7·43	18·0[illegible]	26·15	95
24	1	2	28	320	1,221	...	4·20	0·55	15·39	0·29	2·61	0·74	8·45	32·23	39·28	96
11	...	1	12	99	717	...	0·05	17·54	11·58	0·59	2·79	0·64	5·31	38·46	34·53	97
...	...	...	...	11	93	...	...	0·17	12·21	0·52	1·20	...	1·69	15·99	29·30	98
2	...	...	2	13	42	...	1·57	...	7·08	...	1·97	0·79	5·11	16·51	40·57	99
...	...	...	...	10	50	...	0·39	...	4·47	...	2·92	...	1·94	9·71	20·09	100
2	...	3	5	41	134	...	...	0·22	15·11	2·16	1·51	1·08	8·85	28·93	45·16	101
1	...	...	1	16	128	...	...	7·53	17·41	0·24	0·94	0·24	3·76	30·12	45·27	102
5	1	...	6	29	106	0·11	...	...	6·10	0·34	1·47	0·68	3·28	11·97	27·69	103
3	1	...	4	25	89	0·26	...	...	10·92	1·04	3·88	1·04	6·50	23·15	32·77	104
1	...	...	1	30	44	...		...	2·50	...	...	0·19	5·77	8·46	9·23	105
...	...	...	...	...	11	...	0·17	0·17	1·34	...	0·17	...	...	1·85	8·22	106
1	...	...	1	38	96	...	...	...	13·88	...	0·48	0·24	9·21	23·26	40·27	107
...	...	...	...	2	24	...	...	...	13·59	...	0·65	...	1·29	15·53	29·90	108
...	...	...	...	3	9	...	...	...	0·78	...	0·78		0·78	2·34	12·53	109
1	...	...	1	9	153	...	...	9·46	2·64	0·09	...	0·09	0·77	13·04	10·81	110

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE TOW

1	2	3	4				5	6	7	8	9	10	
Number.	B.—Towns.	Population according to Census of 1921.	Births. Males.	Females.	Total	Birth rate per 1,000 of population.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Sui Males.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	GUJRAT DISTRICT.												
111	Gujrat	21,974	538	474	1,012	46·05	..	3	73	333	34	127	1
112	Jalalpur	10,792	247	256	503	46·61	...	...	14	173	13	71	...
113	Kunjah	7,240	151	164	315	43·51	...	...	...	124	4	27	...
114	Dinga	6,014	102	64	166	27·60	...	4	247	35	2	17	...
	SHAHPUR DISTRICT.												
115	Shahpur	4,590	78	70	148	32·24	...	...	19	57	4	14	...
116	Sahiwal	6,582	141	130	271	41·17	...	...	4	81	7	7	...
117	Bhera	17,027	336	329	665	39·06	...	...	95	346	10	4	...
118	Miani	5,965	138	134	272	45·60	...		19	1[illegible]3	5	3	...
119	Khushab	10,009	185	173	358	35·77	...	...	132	142	7	5	...
120	Sargodha	17,728	185	178	363	20·48	...	...	159	84	6	15	...
	JHELUM DISTRICT.												
121	Jhelum	14,422	239	221	460	31·90	...	...	228	168	11	99	1
122	Pind Dadan Khan ...	9,919	190	189	379	38·21	...	...	66	104	13	25	1
123	Chakwal	7,425	110	100	210	28·28	1	...	170	60	3	26	...
	RAWALPINDI DISTRICT.												
124	Rawalpindi	55,251	1,018	972	1,990	36·02	1	2	43	520	104	408	...
125	Murree	2,397	34	37	71	29·62	...		8	18	2	8	...
	ATTOCK DISTRICT.												
126	Pindigheb	9,419	184	172	356	37·80	...	..	...	117	1	17	1
127	Hazro	8,408	169	157	326	38·77	...	1	1	82	1	26	...
	MIANWALI DISTRICT.												
128	Mianwali	9,115	155	146	301	33·02	...	.	26	110	8	26	...
129	Bhakkar	6,193	131	122	253	40·85	...	...	2	94	5	9	2
130	Isa Khel	6,172	110	100	210	34·02	...	.	1	107	27	14	.
131	Kalabagh	8,455	179	121	300	35·48	...	...	...	238	19	17	...
	MONTGOMERY DISTRICT.												
132	Montgomery	14,601	141	119	260	24·38	...	...	...	106	2	11	...
133	Kamalia	8,916	235	193	428	48·00	...	...	...	158	3	10	...
134	Pakpattan	7,218	167	135	302	41·84	...	...	...	88	5	6	..
135	Okara	4,975	49	33	82	16·48	...	...	...	20	...	...	...
	LYALLPUR DISTRICT.												
136	Lyallpur	28,136	315	273	588	20·90	.	2	...	164	...	21	...
137	Gojra	7,622	96	124	220	28·86	...	3	...	48	4	11	...
138	Samundri	1,575	24	18	42	26·67	.	...	...	3	2	2	...
	JHANG DISTRICT.												
139	Jhang-Maghiana... ...	30,139	788	731	1,519	50·40	...	5	...	384	78	99	...
140	Chiniot	17,513	503	469	972	55·50	...	1	1	158	17	60	...
141	Ahmadpur	4,045	72	67	139	34·36	.	...	...	29	4	6	...
	MULTAN DISTRICT.												
142	Multan	89,162	1,928	1,943	3,871	43·42		37	...	790	161	542	...
143	Shujabad	6,730	176	152	328	48·74	...	...	...	99	6	19	...
144	Jahanian	822	16	8	24	29·20	..	...	...	17	...	1	.
145	Mian Channu	2,294	9	10	19	8·28	..	...	...	23	...	...	...
	MUZAFFARGARH DISTRICT.												
146	Muzaffargarh	5,386	73	85	158	29·34	...	..	...	36	2	11	...
147	Khangarh	3,184	74	55	129	40·52	...	...	...	49	12	9	...
148	Alipur	3,434	56	69	125	36·40	...	...	...	63	8	6	...
149	Leiah	8,476	157	155	312	36·81	...	1	...	158	7	7	...
150	Karor	3,539	87	64	151	42·67	...	...	...	96	1	9	...
151	Kot Adu	5,267	70	47	117	22·21	...	...	...	93	8	11	...
	DERA GHAZI KHAN DISTRICT.												
152	Dera Ghazi Khan ...	20,731	413	313	726	53·02	...	...	1	200	31	21	...
153	Jampur	7,317	161	125	286	39·09	...	...	...	69	5	18	...
154	Dajal... ...	5,775	143	98	241	41·73	...	...	...	80	10	17	...
155	Rajanpur	3,964	80	48	128	32·29	...	...	...	72	...	5	...
156	Kot Mithan	3,204	46	46	92	28·71	...	...	...	55	5	7	...
	Total ...	2,064,788	41,914	38,789	80,703	39·09	30	659	2,088	24,976	2,195	9,074	15
	Total of the Province ...	20,517,606	425,884	380,477	806,431	39·31	128	1,608	7,780	303,654	7,013	40,004	104 1

No. VI—CONCLUDED

OF THE PUNJAB DURING THE YEAR 1922—CONCLUDED.

1				12	13	14										15
TRIBES.						RATIO OF DEATHS PER 1,000 OF POPULATION.										
														From all causes.		
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean ratio of previous five years.	Number.
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
5	2	...	8	103	681	...	0·14	3·32	15·15	1·55	5·77	0·36	4·69	30·99	37·19	111
...	...	1	1	45	317	...	...	1·30	16·03	1·20	6·53	0·09	4·17	29·37	39·44	112
1	...	...	1	13	169	...		...	17·13	0·55	3·73	0·14	1·80	23·34	37·76	113
3	...	...	3	15	323	...	0·67	41·07	5·82	0·33	2·83	0·50	2·49	53·71	27·11	114
2	...	...	2	37	143	...	...	4·14	12·42	0·87	3·05	0·44	8·06	28·98	49·15	115
1	...	...	1	58	158	...		0·61	12·31	1·06	1·06	0·15	8·31	24·00	46·64	116
4	...	...	4	145	604		...	5·58	20·32	0·59	0·[illegible]3	0·23	8·52	35·47	38·36	117
2	...	1	3	50	184	...	0·17	3·18	17·27	0·84	0·50	0·50	8·38	30·85	40·30	118
3	...	...	3	45	334	...	...	13·19	14·19	0·70	0·50	0·30	4·50	33·37	38·14	119
2	...	...	2	54	320	...	...	8·97	4·74	0·34	0.85	0·11	3·05	18·05	11·50	120
10	...	1	12	58	576	...		15·81	11·64	0·76	6·86	0·83	4·02	39·94	42·27	121
3	...	...	4	59	271	...		6·65	10·48	1·31	2·52	0·40	5·95	27·32	53·25	122
6	1	1	8	24	292	0·13	...	22·90	8·08	0·40	3·50	1·08	3·23	39·33	Not available.	123
45	4	...	51	3,[illegible]3	1,502	0·02	0·04	0·78	9·41	1·88	7·38	0·92	6·75	27·19	47·05	124
...	...	...	...	5	41	...	...	3·34	7·51	0·83	3·34	...	2·09	17·10	13·43	125
4	...	...	5	47	187	...	...	...	12·42	0·11	1·80	0·53	4·99	19·85	31·68	126
1		...	1	49	161	...	0·12	0·12	9·75	0·13	3·09	0·12	5·83	19·15	38·56	127
4	...	...	4	19	193	...		2·85	12·07	0·88	2·85	0·44	2·08	21·17	22·14	128
2	...	...	4	31	145	...	...	0·32	15·18	0·81	1·45	0·65	5·01	23·41	44·44	129
3	...	1	4	17	170	...	...	0·16	17·34	4·37	2·27	0·65	2·75	27·54	48·19	130
8	...	...	8	23	305		...	...	28·14	2·25	2·01	0·95	2·72	35·07	30·61	131
1	...	...	1	25	145		...	...	7·26	0·14	0·75	0·07	1·71	9·93	14·85	132
...	...	...	...	49	220	...	...	...	17·72	0·34	1·12		5·50	24·67	41·12	133
	...	...	...	50	149		...	...	12·19	0·69	0·83	...	6·93	20·64	40·32	134
1	...		1	3	24	...	...	...	4·02	...		0·20	0·60	4·82	Not available.	135
1	1	...	2	13	212	...	0·07	...	5·83		0·75	0·07	0·80	7·53	15·40	136
2		...	2	30	98	...	0·39	...	6·30	0·52	1·44	0·26	3·94	12·83	15·93	137
	...	...	...	9	16	...	...	...	1·90	1·27	1·27	...	5·71	10·16	Not available.	138
8	1	...	9	215	790	...	0·17	...	12·74	2·59	3·28	0·30	7·13	26·21	35·15	139
7		...	7	205	449	...	0·06	0·06	9·02	0·97	3·43	0·40	11·71	25·64	36·73	140
1	...	...	1	27	67		...	...	7·17	0·19	1·48	0·25	6·67	16·56	Not available	141
28	3		31	55[illegible]	2,119	...	0·41	...	8·86	1·81	6·08	0·35	6·26	23·77	47·90	142
4		...	4	39	167	...	...	...	14·71	0·89	2·82	0·59	5·79	24·81	47·82	143
1	...	...	1	4	23	...	...	...	20·62	...	1·22	1·22	4·87	27·98	Not available	144
...	...	...	...	4	27	...	...	...	10·03	...	...	...	1·74	11·77		145
2	...		2	11	64	...	...	...	6·68	0·37	2·04	0·37	2·04	11·51	29·59	146
...	1	...	1	18	89	...	...	...	15·39	3·77	2·83	0·31	5·65	27·95	53·08	147
...	...	...	...	29	97	...	...	...	18·85	2·33	1·75	...	5·82	28·25	47·64	148
1		...	1	32	206	...	0·12	...	18·63	0·83	0·83	0·12	3·78	24·30	32·99	149
...	...	...	...	23	129	...		...	27·13	0·28	2·54	...	6·50	36·45	52·84	150
2	...	...	2	22	136	...		...	17·66	1·52	2·09	0·38	4·18	29·82	Not available.	151
3	...	...	3	84	340		...	0·01	9·65	1·50	1·01	0·14	4·05	16·41	29·45	152
1	...	...	1	55	148	...	...	...	9·43	0·68	2·46	0·14	7·52	20·23	39·39	153
1	...	...	1	37	145	...	...	...	13·85	1·73	2·94	0·17	6·41	25·11	61·13	154
...	...	...	...	7	84	...	...	...	18·16	...	1·26	...	1·77	21·19	52·83	155
2	...	...	2	12	81	...	...	...	17·17	1·56	2·18	0·62	3·75	25·28	44·88	156
693	39	23	781	11,756	51,55[illegible]	0·01	0·32	1·01	12·10	1·06	4·39	0·38	5·69	24·97	37·59	
4,812	943	130	6,153	83,4[illegible]7	452,807	0·01	0·08	0·38	14·95	0·34	1·95	0·30	4·07	22·07	39·16	

APPENDIX TO ANNUAL FORM NO. VI-B.

BIRTHS AND DEATHS REGISTERED IN THE CANTONMENTS OF THE PUNJAB DURING THE YEAR 1928.

Number	Cantonments	Population according to the Census of 1921.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries. Suicide. Males.	Injuries. Suicide. Females.	Injuries. Wounds and accidents.	Injuries. Snake-bite and killed by wild beasts.	Injuries. Total.	All other causes.	Total deaths from all causes.	Ratio of deaths per 1,000 of population.	Total births registered during the year.	Ratio of births per 1,000 of population.	Number.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Ambala ...	36,356	...	...	1	403	32	106	...	...	5	1	6	370	918	25	1,334	37	1
2	Kasauli ...	3,212	...	...	...	26	...	...	...	...	...	3	3	32	61	19	92	29	2
3	Dugeshai ...	1,745	...	...	...	18	...	1	...	...	...	...	...	27	46	26	43	25	3
4	Subathu ...	1,581	...	...	...	17	...	...	...	...	1	...	1	12	30	19	32	20	4
5	Jatogn ...	1,064	...	...	...	2	...	...	...	...	2	...	2	6	10	9	15	14	5
6	Dharmsala ...	1,318	...	...	...	17	2	...	...	...	...	...	...	13	32	24	86	65	6
7	Jullundur ...	9,019	...	...	15	89	5	17	...	1	5	...	6	51	183	20	164	18	7
8	Ferozepore ...	18,941	...	1	...	314	18	66	...	...	6	...	6	96	501	26	783	41	8
9	Lahore ...	14,606	4	...	...	172	26	24	...	...	4	...	4	61	291	20	298	20	9
10	Amritsar ...	976	...	...	...	8	...	5	...	...	...	...	...	4	17	17	27	28	10
11	Dalhousie ...	948	...	...	...	7	1	1	...	1	...	...	1	5	15	15	19	20	11
12	Bakloh ...	3,430	...	...	...	9	...	...	...	...	...	...	...	2	11	3	15	4	12
13	Sialkot ...	7,123	...	...	...	74	11	...	...	...	1	...	1	56	142	20	241	34	13
14	Jhelum ...	1,500	...	...	...	4	...	...	...	...	...	...	...	9	13	9	18	12	14
15	Rawalpindi ...	27,657	...	...	3	140	2	39	...	...	2	...	2	47	233	8	419	15	15
16	Campbellpur ...	4,190	...	...	...	27	...	...	...	...	2	...	2	...	29	7	41	10	16
17	Murree ...	874	...	...	...	...	...	...	...	...	...	...	...	7	7	8	23	26	17
18	Attock ...	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18
19	Multan ...	6,090	...	1	...	28	4	...	...	...	...	...	...	26	59	10	74	12	19
	Total ...	140,660	4	2	19	1,355	101	259	...	2	28	4	34	824	2,598	18	3,724	26	

ANNUAL FORM NO. VII.

DEATHS REGISTERED FROM CHOLERA IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1922.

ANNUAL FORM

DEATHS REGISTERED FROM CHOLERA IN THE DISTRICTS

1	2	3		4		5					
Number.	Districts.	Circles of registration.		Villages.		Months.					
		Number in each district.	Number from which deaths from cholera were reported.	Number in each district.	Number from which deaths from cholera were reported.	January.	February.	March	April.	May.	June.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar	27	...	960	...	...	...	...	..	...	...
2	Rohtak	20	1	722	.	...	...	...	...	...	...
3	Gurgaon	24	1	1,351	1	...	..	...	...	..	4
4	Karnal	25	4	1,390	1	...	..	...	...	...	..
5	Ambala	19	5	1,715	22	...	...	...	...	...	22
6	Simla	3	1	208	...	...	...	...	...	...	2
	JULLUNDUR DIVISION.										
7	Kangra	17	...	711	...	...		...	...	...	...
8	Hoshiarpur	23	2	2,111	2	...	...	...	...	...	...
9	Jullundur	17	2	1,222	1	...	...	...	...	...	1
10	Ludhiana	14	3	858	2	...	...	...	..	...	3
11	Ferozepore	24	3	1,499	1	...	...	...	..	...	...
	LAHORE DIVISION.										
12	Lahore	30	2	1,121	1	...	...	...	...	...	1
13	Amritsar	15	2	1,037	1	...	...	...	...	...	...
14	Gurdaspur	22	...	2,246	...	...	...	...	...	..	...
15	Sialkot	28	...	2,053	...	...	...	...	...	...	...
16	Gujranwala ...	20	2	1,212	1	...	..	...	...	...	...
17	Shiekhupura ..	20	...	1,214	...	...	...	...	...	...	...
	RAWALPINDI DIVISION										
18	Gujrat	17	1	1,436	1	...	...	...	...	..	...
19	Shahpur	23	...	996	...	...	...	...	...	...	...
20	Jhelum	15	1	888	...	...	...	...	...	...	...
21	Rawalpindi	14	1	1,170	...	...	...	...	...	...	
22	Attock	13	1	619	1	...	...	...	...	...	...
23	Mianwali	16	...	375	...	...	...	...	...	...	...
	MULTAN DIVISION.										
24	Montgomery... ...	24	...	1,834	...	...	...	...	...	...	...
25	Lyallpur	20	...	973	...	...	...	...	...	...	...
26	Jhang	13	...	981	...	...	...	...	...	...	...
27	Multan	22	...	1,646	...	...	...	...	...	...	...
28	Muzaffargarh. ...	24	...	849	...	...	...	...	...	...	...
29	Dera Ghazi Khan ..	23	...	714	...	...	...	...	...	...	...
	Total for the Province ..	572	32	34,101	35	...	...	...	...	...	33

No. VII.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1922.

						6			7			8	9
						Total.			Ratio of deaths per 1,000 of population.				
July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	Mean ratio per 1,000 for previous five years.	Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26
...	...	...	...	...	...	...	...	...	...	...	...	0·45	1
...	...	1	...	...	...	1	...	1	0·002	...	0·001	0·19	2
1	...	...	...		...	3	2	5	0·01	0·01	0·01	0·49	3
...	...	8	...	...	...	5	3	8	0·01	0·01	0·01	0·37	4
43	10	3	...	...	...	50	28	78	0·14	0·10	0·12	0·26	5
...	...	1	...	...	...	3	...	3	0·11	...	0·07	0·02	6
...	...	...	...	...	...	...	...	...	...	...	...	1·52	7
...	...	2	...	...	...	2	...	2	0·004	...	0·002	0·15	8
2	...	...	...	...		1	2	3	0·001	0·01	0·004	0·10	9
1	...	1	7	...	...	7	5	12	0·02	0·02	0·02	0·08	10
...	...	2	1	...	...	2	1	3	0·003	0·002	0·003	0·12	11
...	1	2	1	...	...	4	1	5	0·01	0·002	0·004	0·38	12
...	...	1	1	...	...	2	...	2	0·003	...	0·002	0·17	13
...	...	...	...	...	...	...	...	...	...	...	...	0·10	14
...	...	...	...	...	...	...	...	...	...	...	...	0·11	15
2	...	...	...	...	...	1	1	2	0·002	0·003	0·003	0·23	16
...	...	...	...		...	...	...	...	...	...	...	0·23	17
...	...	1	...	...	...	1	...	1	0·002	...	0·001	0·14	18
...	...	...	...	...	...	...	...	...	...	...	...	0·14	19
...	...	1	...	...	...	1	...	1	0·004	...	0·002	0·11	20
...	1	...	...	...	...	1	...	1	0·003	...	0·001	0·57	21
...	...	...	1	...	...	1	...	1	0·003	...	0·001	1·16	22
...	...	...	...	...	...	...	...	...	...	...	...	0·97	23
...	...	...	...	...	...	...	...	...	...	...	...	0·01	24
...	...	...	...	...	...	...	...	...	...	...	...	0·33	25
...	...	...	...	...	...	...	...	...	...	...	...	0·09	26
...	...	...	...	...	...	...	...	...	...	...	...	0·06	27
...	...	...	...	...	...	...	...	...	...	...	...	0·01	28
...	...	...	...	...	...	...	...	...	...	...	...	0·08	29
49	12	23	11	...	...	85	43	128	0·01	0·004	0·01	0·29	

ANNUAL FORM

DEATHS REGISTERD FROM SMALL-POX IN THE DISTRICTS

1	2	3		4		5						
		Circles of registration.		Villages.		Months						
Number.	Districts.	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.	January.	February.	March.	April.	May.	June.	July.
1	2	3	4	5	6	7	8	9	10	11	12	13
	AMBALA DIVISION.											
1	Hissar	27	6	160	5	...	...	...	...	...	...	...
2	Rohtak	20	4	722	7	1	...	3	...	14	...	...
3	Gurgaon	24	7	1,351	8	1	...	1	1	2	...	3
4	Karnal	25	2	1,390	2	...	...	...	...	...	...	1
5	Ambala	19	1	1,715	1	...	...	...	...	...	...	...
6	Simla	3	...	208	...	...	...	...	...	...	...	...
	JULLUNDUR DIVISION.											
7	Kangra	17	4	711	8	...	1	1	...	...	2	2
8	Hoshiarpur	13	17	2,111	90	16	...	...	7	13	20	21
9	Jullundur	17	1[illegible]	1,222	25	4	1	4	5	1	4	1
10	Ludhiana	14	3	858	1	...	...	...	1	...	...	...
11	Ferozepore	24	13	1,499	17	7	4	11	2	...	3	...
	LAHORE DIVISION.											
12	Lahore	30	19	1,121	27	11	12	15	9	34	31	26
13	Amritsar	15	13	1,037	25	11	17	4	2	11	11	9
14	Gurdaspur	22	11	2,246	10	1	4	1	1	10	7	11
15	Sialkot	28	16	2,053	26	10	4	2	6	7	16	4
16	Gujranwala	20	13	1,212	20	13	5	4	10	13	33	29
17	Sheikhupura	20	10	1,214	31	5	2	7	1	...	12	9
	RAWALPINDI DIVISION.											
18	Gujrat	17	3	1,436	2	...	...	1	...	1	4	...
19	Shahpur	23	8	986	14	1	3	...	1	2	2	2
20	Jhelum	15	1	888	4	4	1	1	...	...	...	...
21	Rawalpindi	14	6	1,170	9	1	2	3	2	...	2	2
22	Attock	13	4	619	7	12	...	...		1	...	...
23	Mianwali	16	4	375	6	1	1	1	3	...	2	1
	MULTAN DIVISION.											
24	Montgomery	24	14	1,834	21		2	6	4	15	3	2
25	Lyallpur	20	13	973	75	14	13	5	9	39	8	20
26	Jhang	13	2	981	3	5	...	3	1	...	...	...
27	Multan	22	16	1,646	73	25	16	11	11	12	12	10
28	Muzaffargarh	24	5	849	9	...	1	...	...	2	4	1
29	Dera Ghazi Khan	23	5	714	7	...	3	3	4	5	...	2
	Total for the Province ...	572	230	34,101	533	148	92	87	80	182	176	156

No. VIII.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1922.

					6			7		8			9	10
					Total.			Number of deaths among children.		Ratio of deaths per 1,000 of population.				
August.	September.	October.	November.	December.	Males.	Females.	Total.	Under one year.	Over one year and under ten years.	Males.	Females.	Total.	Mean ratio per 1,000 for previous five years.	Number.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
2	3	1	...	4	5	5	10	2	4	0·01	0·01	0·01	0·35	1
...	...	...	...	...	8	10	18	11	7	0·02	0·03	0·02	0·08	2
...	...	...	16	19	20	23	43	15	17	0·05	0·07	0·06	0·11	3
...	1	...	...	...	...	2	2	...	2	...	0·01	0·002	0·17	4
...	...	...	...	1	1	...	1	1	...	0·003	...	0·002	0·18	5
...	...	...	...	...	...	...	...	...	...	...	...	...	0·10	6
...	...	...	...	2	6	2	8	...	1	0·02	0·01	0·01	0·05	7
16	8	2	4	18	55	70	125	25	48	0·11	0·16	0·13	0·58	8
1	5	2	...	5	18	15	33	3	15	0·04	0·04	0·04	0·16	9
...	...	...	...	2	2	1	3	...	1	0·004	0·01	0·01	0·26	10
...	...	7	9	7	26	24	50	13	30	0·04	0·05	0·05	0·46	11
23	15	21	53	114	194	170	364	102	198	0·30	0·35	0·33	0·52	12
14	12	9	2	8	61	49	110	36	51	0·12	0·12	0·12	0·32	13
3	2	1	1	3	22	23	45	9	24	0·05	0·06	0·05	0·18	14
4	4	...	6	27	48	42	90	30	46	0·10	0·11	0·10	0·28	15
22	9	5	25	60	113	115	228	97	82	0·32	0·42	0·37	0·17	16
9	10	...	5	5	39	26	65	21	35	0·11	0·09	0·10	0·18	17
...	...	...	...	2	5	3	8	4	4	0·01	0·01	0·01	0·42	18
2	1	...	...	...	7	7	14	4	5	0·02	0·02	0·02	0·71	19
...	...	...	...	...	5	1	6	1	3	0·02	0·004	0·01	0·67	20
2	...	1	1	...	8	8	16	4	6	0·02	0·03	0·03	0·16	21
...	...	...	...	4	8	9	17	6	9	0·03	0·04	0·03	0·31	22
...	...	...	...	...	4	5	9	3	3	0·02	0·03	0·02	0·23	23
...	...	2	7	6	29	23	52	14	31	0·07	0·07	0·07	0·97	24
2	...	...	...	...	58	52	110	41	52	0·11	0·13	0·12	0·60	25
...	...	...	...	3	6	6	12	4	6	0·02	0·02	0·02	0·27	26
10	7	17	7	2	75	65	140	54	60	0·15	0·16	0·16	0·14	27
2	...	...	...	1	7	4	11	...	1	0·02	0·02	0·02	0·14	28
1	...	...	...	...	9	9	18	5	6	0·03	0·04	0·04	0·12	29
113	77	68	136	193	839	769	1,608	505	747	0·07	0·08	0·08	0·33	

ANNUAL FORM

DEATHS REGISTERED FROM FEVERS IN THE

1	2	3		4		5					
		Circles of Registration.		Villages.		Months					
Number.	District.	Number in each district.	Number from which deaths from Fevers were reported.	Number in each district.	Number from which deaths from Fevers were reported.	January.	February.	March.	April.	May.	June.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar	27	27	960	960	820	649	758	1,004	1,366	1,484
2	Rohtak	20	20	722	720	644	495	715	845	1,275	1,578
3	Gurgaon	24	24	1,351	1,257	668	567	762	832	1,362	1,202
4	Karnal	25	25	1,390	1,390	1,372	989	1,120	1,169	1,643	2,178
5	Ambala	19	19	1,715	1,715	594	506	578	471	509	739
6	Simla	3	3	208	109	43	43	29	23	21	42
	JULLUNDUR DIVISION.										
7	Kangra	17	17	711	598	1,125	822	812	791	1,249	1,338
8	Hoshiarpur	23	23	2,111	1,995	1,204	957	993	1,015	1,313	1,489
9	Jullundur	17	17	1,222	886	793	631	670	754	979	1,187
10	Ludhiana	14	14	858	831	386	365	389	460	579	617
11	Ferozepore	24	24	1,419	1,405	895	802	867	891	1,262	1,402
	LAHORE DIVISION.										
12	Lahore	30	30	1,121	1,061	957	806	813	841	1,322	1,413
13	Amritsar	15	15	1,037	1,037	899	782	827	812	1,253	1,399
14	Gurdaspur	22	22	2,246	2,246	887	681	675	570	778	976
15	Sialkot	28	28	2,053	1,900	953	780	768	699	1,052	1,200
16	Gujranwala	20	20	1,212	1,212	820	668	618	593	869	853
17	Sheikhupura	20	20	1,214	698	467	422	342	331	530	579
	RAWALPINDI DIVISION.										
18	Gujrat	17	17	1,436	1,264	1,430	938	920	750	891	972
19	Shahpur	23	23	986	971	938	732	722	668	1,117	894
20	Jhelum	15	15	888	888	863	576	551	454	446	512
21	Rawalpindi	14	14	1,170	912	1,140	731	754	637	594	612
22	Attock	13	13	619	619	909	661	626	556	607	790
23	Mianwali	16	16	375	375	775	493	562	544	616	643
	MULTAN DIVISION.										
24	Montgomery	24	24	1,834	1,834	734	581	538	432	564	696
25	Lyallpur	20	20	973	973	841	679	729	914	1,180	1,220
26	Jhang	13	13	981	729	533	451	445	475	621	459
27	Multan	22	22	1,646	1,646	839	745	741	624	883	875
28	Muzaffargarh	24	24	849	721	1,134	950	871	740	934	806
29	Dera Ghazi Khan	23	23	714	535	958	879	980	814	864	755
	Total for the Province ...	572	572	34,101	31,487	24,601	19,401	2 ,245	19,715	26,679	28,860

No. IX.

DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1922.

						6			7			8	9
						Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previous five years.	
July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.		Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26
1,008	930	981	1,791	1,779	1,534	7,329	6,775	14,104	16·83	17·77	17·27	34·11	1
863	726	887	1,622	1,536	1,168	6,578	5,776	12,354	15·76	16·28	16·00	35·20	2
733	569	673	1,233	1,164	1,017	5,795	4,987	10,782	15·76	15·87	15·81	49·02	3
1,278	1,324	1,747	3,147	2,623	2,049	11,146	9,493	20,639	24·57	25·31	24·90	38·26	4
503	468	837	1,243	1,059	660	4,316	3,851	8,167	11·96	13·71	12·72	30·00	5
46	42	52	54	34	36	285	180	465	10·33	13·50	11·36	18·71	6
1,048	1,015	1,341	1,273	1,020	1,003	6,615	6,222	12,837	16·83	16·74	16·79	28·04	7
1,110	1,046	1,337	1,630	1,477	1,325	7,921	6,975	14,896	15·88	16·27	16·06	26·60	8
865	1,008	917	1,272	1,264	1,136	5,878	5,553	11,426	13·05	15·28	14·05	24·36	9
493	496	671	827	854	702	3,459	3,383	6,842	10·85	13·60	12·05	23·50	10
1,094	938	880	1,649	2,995	2,756	8,461	7,970	16,431	14·13	16·59	15·22	24·68	11
1,222	1,269	1,231	1,842	2,460	2,113	8,549	7,750	16,299	13·43	16·14	14·60	22·72	12
1,232	1,302	1,325	1,727	1,859	1,526	7,830	7,113	14,943	15·10	17·35	16·10	27·32	13
944	910	1,166	1,422	1,340	1,182	6,317	5,214	11,531	13·51	13·71	13·60	26·89	14
1,030	1,045	1,146	1,380	1,479	1,198	6,692	6,038	12,730	14·17	15·22	14·65	25·22	15
700	782	656	730	833	918	4,946	4,094	9,040	14·18	14·19	14·50	35·21	16
564	512	540	615	611	860	3,426	2,947	6,373	9·75	10·63	10·14	23·41	17
834	886	879	1,063	1,117	1,195	6,344	5,521	11,865	14·47	14·32	14·41	26·25	18
730	539	562	643	742	834	4,856	4,265	9,121	12·39	13·01	12·67	26·03	19
453	415	483	597	690	740	3,535	3,245	6,780	14·70	13·80	14·26	27·61	20
589	559	589	811	929	863	4,599	4,209	8,808	15·73	16·95	16·29	24·59	21
583	541	516	743	878	964	4,395	3,979	8,374	16·77	16·17	16·48	28·52	22
470	371	360	516	688	797	3,591	3,244	6,835	18·90	19·29	19·08	31·83	23
580	545	582	808	1,273	1,278	4,653	3,958	8,611	11·83	12·35	12·06	25·33	24
922	818	871	1,059	1,038	1,007	5,899	5,449	11,348	11·29	13·19	12·12	23·83	25
452	470	452	510	587	659	3,200	2,944	6,144	10·47	11·11	10·77	24·82	26
781	627	670	867	1,239	1,317	5,351	4,807	10,158	11·04	12·03	11·49	30·27	27
566	505	473	710	1,082	1,281	5,503	4,555	10,058	17·83	17·53	17·69	36·22	28
453	386	403	509	869	823	4,820	3,873	8,693	18·73	18·30	18·53	36·66	29
22,099	21,044	23,227	32,323	35,519	32,941	162,284	144,370	306,654	14·48	15·50	14·95	28·83	

ANNUAL FORM

DEATHS REGISTERED FROM DYSENTERY AND DIARRHŒA IN THE

1	2	3		4		5					
Number.	Districts.	Circles of Registration.		Villages.		Months					
		Number in each district.	Number from which deaths from Dysentery and diarrhœa were reported.	Number in each district.	Number from which deaths from Dysentery and diarrhœa were reported.	January.	February.	March.	April.	May.	June.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar	27	15	960	172	24	28	24	16	19	17
2	Rohtak	20	19	722	62	20	7	5	8	17	11
3	Gurgaon	24	23	1,351	141	12	9	18	18	15	8
4	Karnal	25	18	1,390	21	8	7	3	5	5	9
5	Ambala	19	19	1,715	196	14	7	15	7	26	38
6	Simla	3	31	208	3	1	3	3	9	9	9
	JULLUNDUR DIVISION.										
7	Kangra	17	17	711	289	31	26	23	29	75	46
8	Hoshiarpur	23	10	2,111	7	1	...	1	1	1	3
9	Jullundur	17	17	1,222	47	15	15	12	13	16	13
10	Ludhiana	14	13	858	39	11	8	7	12	25	19
11	Ferozepore	24	21	1,499	41	6	8	5	12	11	18
	LAHORE DIVISION.										
12	Lahore	30	25	1,121	35	34	22	22	40	36	33
13	Amritsar	15	15	1,037	108	9	8	5	24	26	15
14	Gurdaspur	22	19	2,246	255	13	12	5	25	28	23
15	Sialkot	28	24	2,053	175	18	17	16	19	30	26
16	Gujranwala	20	16	1,212	37	1	2	4	6	10	10
17	Sheikhupura... ...	20	8	1,214	8	...	2	...	...	...	...
	RAWALPINDI DIVISION.										
18	Gujrat	17	17	1,436	70	34	12	11	13	26	19
19	Shahpur	23	23	986	54	13	6	5	12	5	10
20	Jhelum	15	15	888	78	15	5	6	7	11	13
21	Rawalpindi	14	14	1,170	318	145	105	137	84	108	80
22	Attock	13	9	619	16	3	8	11	2	1	4
23	Mianwali	16	16	375	51	16	15	10	9	7	5
	MULTAN DIVISION.										
24	Montgomery	24	15	1,834	25	...	1	2	2	...	4
25	Lyallpur	20	7	973	51	8	5	3	4	6	9
26	Jhang	13	13	981	67	46	20	7	28	16	21
27	Multan	22	15	1,616	19	8	10	6	22	21	12
28	Muzaffargarh ...	24	10	849	7	5	3	3	5	1	3
29	Dera Ghazi Khan ...	23	18	714	33	9	15	5	4	3	7
	Total for the Province ..	572	452	34,101	2,425	520	388	384	431	554	485

No. X.

DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1922.

						6			7			8	9
						Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previous five years.	
July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.		Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26
15	34	49	27	36	29	192	126	318	0·44	0·33	0·39	0·47	1
10	11	14	22	22	8	86	69	155	0·21	0·19	0·20	0·46	2
12	36	29	38	35	25	122	133	255	0·33	0·42	0·37	0·84	3
8	9	11	9	11	8	51	42	93	0·11	0·11	0·11	0·37	4
20	27	44	41	34	16	160	129	289	0·44	0·46	0·45	0·79	5
4	1	7	2	4	4	29	27	56	1·05	2·02	1·37	1·71	6
42	27	50	227	143	161	441	439	880	1·12	1·18	1·15	1·32	7
2	2	4	...	1	...	11	5	16	0·02	0·01	0·02	0·03	8
16	26	30	24	22	25	136	91	227	0·30	0·25	0·28	0·38	9
28	14	22	20	21	18	109	96	205	0·34	0·38	0·36	0·36	10
15	12	31	51	49	40	146	112	258	0·24	0·23	0·24	0·32	11
29	41	42	56	44	46	241	204	445	0·38	0·42	0·40	0·53	12
11	31	27	53	27	29	160	105	265	0·31	0·26	0·29	0·64	13
32	30	31	39	49	29	169	147	316	0·36	0·39	0·37	0·93	14
17	33	30	50	43	27	186	140	326	0·39	0·35	0·38	0·91	15
7	14	10	7	7	10	51	37	88	0·15	0·13	0·14	0·24	16
1	...	1	3	...	3	4	6	10	0·01	0·02	0·02	0·08	17
15	26	21	27	29	13	152	94	246	0·35	0·24	0·30	0·39	18
6	5	6	12	8	12	56	44	100	0·14	0·13	0·14	0·34	19
10	11	9	15	6	8	73	44	117	0·30	0·19	0·25	0·42	20
81	93	103	173	152	193	784	670	1,454	2·68	2·70	2·69	3·46	21
3	1	1	...	...	...	20	14	34	0·08	0·06	0·07	0·10	22
6	1	15	9	6	14	64	50	114	0·34	0·30	0·32	0·54	23
1	3	9	1	7	5	21	14	35	0·05	0·04	0·05	0·06	24
13	6	13	11	4	6	47	41	88	0·09	0·10	0·09	0·31	25
17	20	24	21	16	26	176	91	267	0·58	0·34	0·47	0·57	26
7	28	24	28	26	13	113	92	205	0·23	0·23	0·23	0·31	27
1	3	2	2	1	16	25	20	45	0·08	0·08	0·08	0·11	28
5	8	16	9	15	10	69	37	106	0·27	0·17	0·23	0·36	29
434	553	675	977	818	794	3,894	3,119	7,013	0·35	0·33	0·34	0·54	

ANNUAL FORM

DEATHS REGISTERED FROM RESPIRATORY DISEASES IN THE

1	2	3		4		5					
		Circles of registration.		Towns and villages.		Months.					
Number.	Districts.	Number in each district.	Number from which deaths from respiratory diseases were reported.	Number in each district.	Number from which deaths from respiratory diseases were reported.	January.	February.	March.	April.	May.	June.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar	27	23	960	271	57	65	78	53	66	57
2	Rohtak	20	20	722	427	52	49	76	49	92	84
3	Gurgaon	24	23	1,351	449	84	60	108	70	103	73
4	Karnal	25	25	1,390	211	76	56	53	40	49	75
5	Ambala	19	19	1,715	1,633	480	351	366	362	532	615
6	Simla	3	3	208	1	...	...	6	20	18	10
	JULLUNDUR DIVISION.										
7	Kangra	17	17	711	467	417	380	342	272	375	361
8	Hoshiarpur	23	23	2,111	1,025	211	174	171	144	155	111
9	Jullunder	17	17	1,222	346	152	157	123	151	132	110
10	Ludhiana	14	14	858	475	165	128	161	117	134	117
11	Ferozepore	24	24	1,499	253	74	62	84	73	81	82
	LAHORE DIVISION.										
12	Lahore	30	30	1,121	236	212	171	151	164	193	175
13	Amritsar	15	15	1,037	880	174	162	166	216	269	251
14	Gurdaspur	22	22	2,246	2,246	544	446	364	380	641	531
15	Sialkot	28	27	2,053	186	86	90	75	73	92	132
16	Gujranwala	20	20	1,212	114	26	29	38	30	24	31
17	Sheikhupura ...	20	18	1,214	49	...	12	6	8	11	12
	RAWALPINDI DIVISION.										
18	Gujrat	17	17	1,436	489	159	128	141	109	116	103
19	Shahpur	23	22	986	78	84	6	8	1	14	5
20	Jhelum	15	15	888	330	108	97	75	58	61	57
21	Rawalpindi	14	14	1,170	615	192	195	135	91	81	77
22	Attock	13	13	619	168	43	46	36	30	20	33
23	Mianwali	16	16	375	99	38	27	27	20	21	33
	MULTAN DIVISION.										
24	Montgomery ...	24	22	1,834	65	...	10	13	10	27	17
25	Lyallpur	20	11	973	196	58	62	53	47	28	42
26	Jhang	13	13	981	267	194	88	165	59	64	152
27	Multan	22	18	1,646	167	71	71	110	66	61	51
28	Muzaffargarh ...	24	22	849	57	14	9	16	10	7	5
29	Dera Ghazi Khan ...	23	22	714	47	14	18	31	15	13	8
	Total for the Province ...	572	545	34,101	12,847	3,785	3,149	3,173	2,738	3,480	3,410

No. XI.

DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1922.

						6			7			8	9
						Total.			Ratio of deaths per 1,000 of population.				
July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	Mean ratio per 1,000 for previous five years.	Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26
60	60	34	52	70	70	394	328	722	0·90	0·86	0·88	1·28	1
53	63	47	62	92	75	407	387	794	0·98	1·09	1·03	1·55	2
40	41	43	62	78	97	431	423	854	1·17	1·34	1·25	1·93	3
27	35	28	48	50	55	321	271	592	0·71	0·72	0·71	1·42	4
455	264	374	509	634	666	3,097	2,511	5,608	8·58	8·94	8·74	7·55	5
9	5	11	5	3	5	59	33	92	2·14	2·47	2·25	5·88	6
270	233	229	454	360	368	2,185	1,876	4,061	5·56	5·05	5·31	5·21	7
117	137	128	159	177	197	1,092	789	1,881	2·19	1·84	2·03	2·77	8
83	134	120	163	168	130	901	722	1,623	1·98	1·99	2·00	2·44	9
115	102	92	106	121	127	811	674	1,485	2·54	2·71	2·62	2·24	10
78	81	67	98	112	107	523	476	999	0·87	0·99	0·93	1·49	11
117	110	99	189	211	215	1,068	939	2,007	1·68	1·96	1·80	2·16	12
192	237	229	273	255	217	1,353	1,288	2,641	2·61	3·14	2·84	3·95	13
473	659	663	949	1,010	665	3,958	3,367	7,325	8·46	8·85	8·64	10·14	14
81	63	38	129	121	122	579	523	1,102	1·23	1·32	1·27	4·98	15
30	34	26	19	34	48	212	166	378	0·61	0·60	0·61	0·94	16
13	15	30	12	22	12	83	70	153	0·24	0·25	0·24	0·29	17
99	82	135	136	189	207	921	683	1,604	2·10	1·77	1·95	2·27	18
2	3	4	8	5	11	86	65	151	0·22	0·20	0·21	1·47	19
49	60	62	72	65	93	527	330	857	2·19	1·40	1·80	2·33	20
103	87	70	79	116	160	801	585	1,386	2·74	2·36	2·55	3·23	21
23	28	39	53	41	47	256	183	439	0·98	0·74	0·86	1·38	22
30	21	31	26	25	27	177	149	326	0·93	0·89	0·91	0·82	23
10	4	7	8	8	21	79	56	135	0·20	0·17	0·19	0·19	24
41	37	29	57	39	48	319	222	541	0·61	0·54	0·58	0·86	25
89	31	32	66	103	98	608	533	1,141	1·99	2·01	2·00	1·02	26
52	58	54	58	75	76	423	380	803	0·87	0·95	0·91	1·06	27
4	7	9	18	11	9	63	56	119	0·20	0·22	0·21	0·33	28
14	11	10	14	16	21	120	65	185	0·47	0·37	0·39	0·63	29
2,729	2,701	2,740	3,894	4,211	3,994	21,854	18,150	40,004	1·95	1·95	1·95	2·47	

ANNUAL FORM

DEATHS REGISTERED FROM PLAGUE IN THE

1	2	3		4		5					
		Circles of Registration.		Villages.		Months					
Number.	Districts.	Number in each district.	Number from which deaths from plague were reported.	Number in each district.	Number from which deaths from plague were reported.	January.	February.	March.	April.	May.	June.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar	27	...	960	...	...	...	...	...	...	...
2	Rohtak	20	...	722	...	...	...	...		...	...
3	Gurgaon	24	...	1,351	...	..	...	...	...	...	...
4	Karnal	25	...	1,390	...	...	...	...	...	...	...
5	Ambala	19	...	1,715	...	...	...	...	...	...	...
6	Simla	3	...	205	...	...	...	...	...	...	...
	JULLUNDUR DIVISION.										
7	Kangra	17	...	711	...	...	...	...	...	...	...
8	Hoshiarpur	23	...	2,111	...	...	...	...	...	...	...
9	Jullundur	17	3	1,222	20	3	31	75	164	42	...
10	Ludhiana	14	1	858	...	...	...	...	...	...	
11	Ferozepore	24	...	1,499	...	...	...	...	...	...	...
	LAHORE DIVISION.										
12	Lahore	30	3	1,121	1	...	...	...	18	10	1
13	Amritsar	15	1	1,037	...	...	..	...	1	...	...
14	Gurdaspur	22	5	2,246	7	...	...	...	21	11	...
15	Sialkot	28	13	2,053	24	1	18	118	310	147	46
16	Gujranwala	20	6	1,212	20	5	22	104	473	202	8
17	Sheikhupura	20	11	1,214	27	7	66	115	276	232	29
	RAWALPINDI DIVISION.										
18	Gujrat	17	16	1,436	49	1	15	189	590	424	81
19	Shahpur	23	21	986	112	13	108	202	334	410	67
20	Jhelum	15	14	888	62	113	139	166	491	455	108
21	Rawalpindi	14	12	1,170	59	60	65	83	90	67	30
22	Attock	13	3	619	6	9	...	2	39	50	11
23	Mianwali	16	4	375	1	...	...	...	16	12	2
	MULTAN DIVISION.										
24	Montgomery ...	24	1	1,834	4	...	...	...	...	35	...
25	Lyallpur	20	2	973	12	...	...	7	77	35	3
26	Jhang	13	1	981	22	1	1	16	23	82	12
27	Multan	22	2	1,646	5	...	9	...	9	6	...
28	Muzaffargarh ...	24	...	849	..	...	...	...	...	...	...
29	Dera Ghazi Khan ..	23	1	714	1	...	...	1	...	...	...
	Total for the Province ...	572	120	34,101	432	213	474	1,078	2,932	2,220	399

No. XII.

DISTRICTS OF THE PUNJAB, DURING EACH MONTH OF THE YEAR 1922.

						6			7			8	9
						Total.			Ratio of Deaths per 1,000 of population.			Mean ratio per 1,000 for previous five years.	
July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.		Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26
...	...	...	...	...	...	...	...	...	...	...	...	0·94	1
...	...	...	...	...	...	...	...	...	...	...	...	1·85	2
...	...	...	...	...	...	...	...	...	...	...	...	0·90	3
...	...	...	...	...	...	...	...	...	...	...	...	0·12	4
...	...	...	...	...	...	...	...	...	...	...	...	1·19	5
...	...	...	...	...	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	...	...	...	...	...	...	0·02	7
...	...	...	...	...	...	...	...	...	...	...	...	0·29	8
...	...	...	...	...	...	138	177	315	0·31	0·49	0·39	2·13	9
...	...	...	...	...	...	1	...	1	0·003	...	0·002	5·18	10
...	...	...	...	...	...	...	...	...	...	...	...	0·59	11
...	...	...	...	...	...	15	14	29	0·020	0·03	0·03	4·66	12
...	...	...	...	...	...	1	...	1	0·001	...	0·001	1·08	13
...	...	...	...	...	1	27	6	33	0·06	0·02	0·04	0·99	14
...	...	...	4	51	131	393	433	826	0·83	1·09	0·95	0·14	15
...	...	...	...	5	19	395	443	838	1·13	1·61	1·34	0·76	16
8	...	...	1	...	19	361	392	753	1·03	1·41	1·20	2·17	17
...	...	...	...	...	...	596	704	1,300	1·36	1·83	1·58	1·49	18
5	...	...	...	5	21	628	537	1,165	1·60	1·64	1·62	0·13	19
...	...	...	...	2	...	641	833	1,474	2·67	3·54	3·10	3·09	20
...	...	...	...	12	...	194	213	407	0·66	0·86	0·75	2·25	21
...	...	...	2	...	...	40	73	113	0·15	0·30	0·22	1·08	22
1	...	...	...	...	...	20	11	31	0·11	0·07	0·09	0·03	23
...		...	...	...	...	15	20	35	0·04	0·06	0·05	1·16	24
1	...	...	13	33	130	133	166	299	0·25	0·40	0·32	0·45	25
...	...	...	...	...	...	76	59	135	0·25	0·22	0·24	0·05	26
...	...	...	...	...	...	12	12	24	0·02	0·03	0·03	0·79	27
...	...	...	...	...	...	...	...	...	...	...	...	0·03	28
...	...	...	...	...	...	1	...	1	0·004	...	0·002	0·004	29
15	...	...	20	108	321	3,687	4,093	7,780	0·33	0·44	0·38	1·2	

STATEMENT

MONTHLY STATEMENT OF PLAGUE OCCURRENCES IN BRITISH

Serial No.	Districts and Punjab States.	January.		February.		March.		April.		May.		June.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Hissar ...	...	...	...	...	...	...	...	...	...	...	...	...
2	Rohtak ...	...	...	...	...	...	...	...	...	...	...	...	...
3	Gurgaon ...	...	...	...	...	...	...	...	...	...	...	...	...
4	Karnal ...	...	...	...	...	...	...	...	...	...	...	...	...
5	Ambala ...	...	...	...	...	1	1	...	...	...	...	...	...
6	Simla ...	...	...	...	...	...	...	...	...	...	...	...	...
7	Kangra ...	...	...	...	...	...	...	...	...	...	...	...	...
8	Hoshiarpur ...	...	...	...	...	14	...	2	...	...	...	...	...
9	Jullundur ...	3	3	45	31	127	78	284	176	34	42	4	...
10	Ludhiana ...	...	...	...	...	...	...	...	...	...	...	1	1
11	Ferozepore ...	...	...	...	...	...	...	...	...	...	...	...	...
12	Lahore ...	...	...	...	...	...	...	31	18	10	10	1	1
13	Amritsar ...	...	...	...	...	...	...	15	1	...	...	...	...
14	Gurdaspur ...	...	...	...	...	...	...	43	21	28	11	...	...
15	Sialkot ...	1	1	23	18	183	118	246	310	213	147	30	46
16	Gujranwala ...	15	5	38	22	138	104	741	473	262	102	...	8
17	Sheikhupura ...	15	7	87	66	120	115	300	276	267	232	70	29
18	Gujrat ...	1	1	24	15	192	189	659	590	694	424	90	81
19	Shahpur ...	115	13	175	103	272	202	657	334	595	410	84	67
20	Jhelum ...	163	113	245	139	260	166	640	491	566	455	192	108
21	Rawalpindi ...	98	62	101	65	144	83	148	90	135	67	57	30
22	Attock ...	...	9	...	...	2	2	64	39	105	50	11	11
23	Mianwali ...	...	...	...	...	...	...	43	16	...	12	5	2
24	Montgomery ...	...	...	...	...	1	...	37	...	6	35	17	...
25	Lyallpur ...	...	...	...	...	12	7	138	77	51	35	...	3
26	Jhang ...	1	1	1	1	31	16	43	23	55	82	43	12
27	Multan ...	...	...	10	9	...	...	13	9	8	6	...	...
28	Muzaffargarh ...	...		...	...	...	...	4	...	...	...	...	...
29	Dera Ghazi Khan ...	...	...	...	...	1	1	...		...	...	...	...
	Total British Districts	412	215	749	474	1,498	1,082	4,108	2,944	3,029	2,220	605	399
1	Patiala ...	...	...	...	...	20	15	36	21	1	1	...	...
2	Bahawalpur ...	...	...	...	...	...	...	...	...	...	...	...	...
3	Jind	...	...	...	...	...	...	...		...	...	...	...
4	Nabha ...	...	...	...	...	...	...	...	...	...	...	...	...
5	Kapurthala ...	...	...	...	...	...	...	2	1	...	...	...	...
6	Sirmur (Nahan) ...	...	...	...	...	...	...	...	...	...	...	...	...
7	Maler Kotla ...	...	...	...	...	...	...	...	...	...	...	...	...
8	Faridkot ...	...	...	...	...	...	...	...	...	...	...	...	...
9	Chamba ...	...	...	...	...	...	...	...	...	...	...	...	...
10	Pataudi ...	...	...	...	...	...	...	...	...	...	...	...	...
11	Kalsia ...	...	...	...	...	...	...	...	...	...	...	...	...
12	Loharu ...	...	...	...	...	...	...	...	...	...	...	...	...
13	Bilaspur ...	...	...	...	...	...	...	...	...	...	...	...	...
	Total Punjab States ...	...	...	...	...	20	15	38	22	1	1	...	...
	Grand Total ...	412	215	749	474	1,518	1,097	4,146	2,966	3,030	2,221	605	399

N.B.—The total deaths during the year in the Cantonments of Ambala, Jullundur

No. 1.

DISTRICTS AND NATIVE STATES IN THE PUNJAB DURING THE YEAR 1922.

July.		August.		September.		October.		November.		December.		Total.		Serial No.	Remarks.
Cases.	Deaths.	Cases.	Deaths	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
...	...	...	...	...	...	...	...	...	...	...	...	1	1	5	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	
...	...	...	...	...	...	...	...	...	...	...	...	16	...	8	
...	...	...	...	...	...	...	...	...	...	...	...	497	330	9	
...	...	...	...	...	...	...	...	...	...	...	...	1	1	10	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	
...	...	...	...	...	...	...	...	...	...	...	...	42	29	12	
...	...	...	...	...	...	...	...	...	...	...	...	15	1	13	
...	...	...	...	...	...	...	...	...	...	1	1	72	33	14	
	...	...	...	...	...	9	4	76	51	174	131	955	826	15	
...	...	...	...	...	...	...	...	8	5	58	19	1,260	838	16	
35	8	...	...	...	...	3	1	...	...	35	10	932	753	17	
...	...	...	...	...	...	...	...	...	...	...	...	1,600	1,300	18	
5	5	...	...	...	...	...	...	5	5	30	21	1,338	1,165	19	
...	...	...	...	...	...	...	...	4	2	...	...	2,070	1,474	20	
...	...	1	1	...	...	...	...	18	12	...	...	702	410	21	
...	...	...	...	...	...	4	2	...	...	...	...	186	113	22	
1	1	...	...	...	...	...	...	...	...	...	...	49	31	23	
...	...	...	...	...	...	...	...	1	...	...	...	62	35	24	
...	1	...	...	...	...	19	13	70	33	154	130	444	299	25	
...	...	...	...	...	...	...	...	...	...	...	...	174	135	26	
...	...	...	...	...	...	...	...	...	...	...	...	31	24	27	
...	...	...	...	...	...	...	...	...	...	...	...	4	...	28	
...	...	...	...	...	...	...	...		...	...	...	1	1	29	
41	15	1	1	...	...	35	20	182	108	452	321	11,112	7,799		
...	...	...	...	...	...	...	...	...	...	...	...	57	37	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
...	...	...	...	...	...	...	...	...	...	...	...	2	1	5	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	
...	...	...	...	...	...		...	...	...	...	...	59	38		
14	15	1	1	...	...	35	20	182	108	452	321	11,169	7,83		

and Rawalpindi were 1, 15 and 3 respectively, and are included in the district totals

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