

# CENSUS OF INDIA 1951

VOL. VI PART 1B

## VITAL STATISTICS WEST BENGAL 1941-1950



सत्यमेव जयते

By

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## PREFACE

'It is as reasonable to represent one kind of imprisonment by another, as it is to represent anything that really exists by that which exists not!'

—"Robinson Crusoe's Preface" to the third volume of *Robinson Crusoe*—Daniel Defoe (quoted by Albert Camus in *The Plague*).

At the instance of the Superintendent of Census Operations, West Bengal and Sikkim, the Assistant Director, Vital Statistics, to the Directorate of Health Services, West Bengal, compiled sixty tables of which eighteen were principal and fortytwo subsidiary. The tables were devised on the subsidiary tables and statements printed in the 1931 and 1921 Reports for the Census of Bengal thus making comparisons possible over a period of forty years (1911-1950). The fortytwo supporting tables yield details hitherto inaccessible to any but departmental workers and crude absolute figures are given as much as possible, considering how misleading percentages and rates are liable to be of figures already suspect and often patently spurious.

One can quite pertinently ask, why, then, bother to publish figures that are incorrect, if not false, that underestimate several kinds of vital occurrences as much as several times the published figure? Are they intended for make-belief, whitewash or an apology?

It will not take the experienced eye more than a few minutes to discover how untrustworthy the crude figures are by themselves, and, indeed this little preface will not attempt to conceal the many defects and loopholes. Yet the tables are presented with two objects in view. Firstly, it seeks to focus public attention on the deplorable state of birth and death registration in our country. In 1933 L. S. Vaidyanathan observed in his Actuarial Report on the Census of India 1931 that "a study of the figures in the Table will show that Delhi, Assam and Bengal are almost in the vanguard of provinces that maintain inaccurate vital records as the increases in the population of the decade in these provinces traced through vital records are nearly 64, 61, and 57 per cent. respectively in defect of the increases revealed by the census enumeration."<sup>1</sup> As will be presently stated the position, instead of improving, has deteriorated even by 1931 standards.

Not that registration of vital occurrences even in countries like Great Britain and the U. S. A. is perfect, but whereas in these and other countries a ceaseless effort goes on to perfect the machinery by legislation and propaganda, the primitive machinery in our country,

never sought to be improved, is breaking down for apathy and lack of administrative supervision. The importance and value of vital statistics for Public Health Departments, to medical science and to other social needs are increasingly realised. In an atmosphere thick with the fumes of planning the fact that Vital Statistics "define the problems and measure the results of public-health work", and form the basis of all intelligent programmes is generally admitted, medical men and researchers deplore the present state and method of collection, while the uses of a birth or death certificate are becoming far too numerous even in the life of the common man. But the determination to improve registration is lacking. Very few of us even know that a birth or a death is compulsorily notifiable within eight days of its occurrence, that the law lays down penalties for failure to report, that this law is as old as 1873. This legislation has never had teeth in it. A pilot survey conducted in 1947-48 by the Assistant Director, Health Services, Vital Statistics, to the Directorate of Health Services, in certain parts of West Bengal recorded widespread apathy, even hostility on the part of physicians and midwives towards registration. The State Government now propose to introduce the compulsory issue of birth certificates to all school-going children in Primary and Secondary Schools and thereby popularise birth and death registration. They also propose to fasten the responsibility of reporting births and deaths on physicians and midwives through the Rural Health Centres, but until the importance of registration is driven home to the minds of the common people through long years of steady propaganda, physicians and midwives made legally liable, the chances of the idea catching on are small. The U. S. Department of Commerce through the U. S. A. Census Bureau issues to every physician a *Physician's Handbook on Birth and Death Registration* which describes the duties of physicians and midwives on the filling of certificates of birth and death, the method of their preparation, the importance of registration, the system of registration, and an International List of causes of Death for ready reference and as if to interest and invite the physician to take pride in his work as a contribution to the Nation, it publishes as an appendix C eight tables and four charts summarising and

<sup>1</sup> Census of India, Vol. I; Part I India Report, p. 111.

showing the trends of vital occurrences in the U. S. A. First prepared in 1910 it was revised and published in 1939 and given to every practitioner.<sup>1</sup> A similar booklet, and an imperative mood in the law's grammar respecting them, may induce physicians and midwives to take more active interest.

In the second place, the tables, while they are their own apology and although the crude figures they record must be largely fictitious, yet present a picture consistent within their framework, a logic of reality in spite of the figures being unreal. It will be seen that underregistrations are fairly uniform and do not take sudden leaps and bounds from year to year, and the texture of reporting of vital occurrences by causes of death has the virtue of an even tension. In the majority of the tables few distinct trends are noticeable—this corresponds to general and expert experience—and insofar as they are so, they yield clues to the real state. This achieves the second object, that the tables exhibit ratios, tensions and relations that correspond to reality, while the data are unreal—and therefore do not deserve to be summarily dismissed. They give food for thought.

*Population*—West Bengal's population in the 1951 Census (1 March) stands at 24,810,308. The population in 1941 (1 March) for the same area was 21,837,295. There has been thus an apparent increase of 2,973,013 persons or 13.6 per cent. in population over the decade. But in the following discussion, figures of Cooch Behar not having been included in the tables, the population of Cooch Behar is excluded upon which the population of West Bengal stood at 24,139,150 on 1 March 1951 and 21,196,453 on 1 March 1941, showing an apparent increase of 2,942,697 or 13.9 per cent. in population over the decade. This however does not take into account the immigra-

tion of refugees into West Bengal from Pakistan and the steady migration into Calcutta and other districts from other Indian States and foreign countries. Displaced persons from Pakistan numbered 2,117,896 inclusive of Cooch Behar and without that district 1,999,154 on 1 March and although clear instructions were issued to enumerators not to show as displaced infants and children born to displaced parents after their immigration, it is by no means certain that these instructions were strictly observed. Figures of immigration into West Bengal during the decade cannot be set off against total increase so readily, because immigration in the census is judged by return of place of birth and not by date of entry into the State. Thus the figures of immigration that will be eventually published in the Census tables will include those that were counted as migrants in past censuses and only detailed but faulty investigation by age groups may yield a partial clue to the figures of migration between 1941 and 1950. Natural increase is therefore very difficult to assess and Statement 1 merely gives in absolute figures the excess of registration of births over deaths by sex and district. But it is pertinent to try to assess the natural increase by the exclusion of displaced persons which yields 2,942,697 less 1,999,154 or 943,543 for West Bengal excluding Cooch Behar, or an increase at the rate of 4.51 per cent. for the decade or an annual rate of increase of .46 per cent. The excess of births over deaths numbered 362,105.

*Errors in registration of vital events*—When this figure is compared with the actual increase of population over the decade it reveals a defect of about 88 per cent. in the registration of births and deaths. The findings for each district in Statement 1 will show a similar degree of defect and a very similar ratio. If, however, the total of displaced persons is considered the defect in

STATEMENT 1  
Vital Statistics 1941-51

Districts	Census 1941	Census 1951	Variation 1941-51 according to census Excess (+) and deficiency (-)	Births 1941-50	Deaths 1941-50	Excess of birth over death (+) deficiency (-) during inter-census period	Difference excess (+) deficit (-) of column 6 over column 7	Column 8 in percentage to column 6
1	2	3	4	5	6	7	8	9
Burdwan . . . . .	1,890,732	2,191,667	+ 300,935	421,749	372,214	+ 49,535	+ 251,400	84
Birbhum . . . . .	1,048,317	1,066,849	+ 18,532	277,689	287,396	- 9,707	+ 28,279	152
Bankura . . . . .	1,289,640	1,319,259	+ 29,619	315,624	268,935	+ 46,689	- 17,070	64
Midnapur . . . . .	3,190,647	3,359,022	+ 168,375	771,046	649,876	+ 121,170	+ 47,206	29
Hooghly . . . . .	1,377,729	1,554,320	+ 176,591	308,863	233,206	+ 75,657	+ 100,934	67
Howrah . . . . .	1,490,304	1,611,373	+ 121,069	244,837	257,270	- 12,433	+ 133,502	110
24 Parganas . . . . .	3,669,490	4,609,349	+ 939,859	668,128	572,090	+ 96,038	+ 843,741	90
Calcutta . . . . .	2,108,891	2,548,677	+ 439,786	344,718	427,269	- 82,551	+ 522,337	119
Nadia . . . . .	840,308	1,144,924	+ 304,616	226,391	237,048	- 11,257	+ 315,878	104
Murshidabad . . . . .	1,640,530	1,715,759	+ 75,229	429,599	395,734	+ 33,865	+ 44,364	59
West (Dinajpur) . . . . .	864,484	720,573	- 143,911	148,909	140,165	+ 8,744	+ 124,265	94
Jalpaiguri . . . . .	845,702	914,538	+ 68,836	231,953	215,389	+ 16,564	+ 52,472	76
Jarjiling . . . . .	376,360	445,290	+ 68,931	105,825	98,050	+ 7,775	+ 61,116	89
Mahla . . . . .	844,118	937,500	+ 93,382	165,573	140,437	+ 25,136	+ 64,129	72
TOTAL for West Bengal (excluding Cooch Behar)	21,196,453	24,139,150	+ 2,942,697	4,660,954	4,298,679	+ 362,105	+ 2,860,592	88

<sup>1</sup>Physician's Handbook on Birth and Death Registration: U. S. Department of Commerce, Bureau of the Census 1939. Priced 15 cents but available without charge from the Bureau of the Census, upon request.

registration reduces to 62 per cent. and Statement 2 gives Statement 1 corrected for the numbers of displaced persons for every district and for the State. This defect would no doubt reduce further if an accurate assessment of migrants were possible but even then the defect in registration does not compare unfavourably with that of the previous decade (1931-40) which was 62.3 per cent. Considering that a great many

of the primary reporters—the village watchman—deserted owing to their meagre pay or recruited in the World War II or removed by famine in 1943, not replaced until after several years, reasons sufficient to cause a grievous breakdown were it not that the law held a great deal of fear and sanctity for this class of people, the defect in registration cannot be regarded as unusual.

STATEMENT 2  
Errors in Registration of Vital Statistics (without Displaced Population) 1941-51

Districts	Census 1941	Census 1951	Difference in population	Displaced population	Natural increase in population	Births 1941-50	Deaths 1941-50	Difference	Col. (6) minus Col. (9)	Col. 10 in percentage to Col. 6
1	2	3	4	5	6	7	8	9	10	11
Burdwan . . . . .	1,890,732	2,191,667	+ 300,935	96,105	+ 204,830	421,749	372,214	+ 49,535	+ 155,295	76
Birbhum . . . . .	1,048,317	1,066,889	+ 18,572	11,783	+ 6,789	277,689	287,396	- 9,707	+ 16,496	243
Bankura . . . . .	1,289,640	1,819,259	+ 29,619	9,294	+ 20,325	815,624	268,935	+ 46,689	+ 26,364	130
Midnapur . . . . .	3,190,647	3,359,022	+ 168,375	33,579	+ 134,796	771,046	649,876	+ 121,170	+ 13,626	10
Hooghly . . . . .	1,877,729	1,554,320	+ 176,591	51,153	+ 125,438	308,863	233,208	+ 75,657	+ 49,781	40
Howrah . . . . .	1,490,304	1,611,373	+ 121,069	61,096	+ 59,973	244,837	257,270	- 12,433	+ 72,406	121
24-Parganas . . . . .	3,669,490	4,609,309	+ 939,819	527,262	+ 412,557	668,128	572,090	+ 96,038	+ 316,519	77
Calcutta . . . . .	2,108,891	2,548,677	+ 439,786	433,228	+ 6,558	844,718	427,269	+ 417,449	+ 89,109	1,359
Nadia . . . . .	840,303	1,144,924	+ 304,621	426,907	- 122,286	226,391	237,648	- 11,257	- 11,029	91
Murshidabad . . . . .	1,640,530	1,715,759	+ 75,229	59,729	+ 15,500	429,599	398,734	+ 30,865	+ 12,755	59
West Dinajpur . . . . .	683,484	720,573	+ 37,089	1,15,510	+ 21,579	148,989	140,165	+ 8,824	+ 46,100	155
Jalpaiguri . . . . .	845,702	914,538	+ 68,836	15,738	+ 29,736	231,853	215,589	+ 16,264	+ 45,378	85
Darjeeling . . . . .	376,369	445,260	+ 68,891	15,738	+ 53,153	105,825	98,050	+ 7,775	+ 7,931	24
Malda . . . . .	844,315	937,580	+ 93,265	60,198	+ 33,067	165,573	140,437	+ 25,136	+ 581,488	62
TOTAL for West Bengal (excluding Cooch Behar)	21,196,453	24,139,150	+ 2,942,697	1,999,154	+ 943,543	4,660,984	4,298,879	+ 362,105		

Applying the average rate of increase over the decade, and excluding the displaced population, the annual increase in population comes to 94,354 or 4.5 per mille. The decade had no dearth of Malthusian checks, of which more presently. The ardent Malthusian will be delighted at the poor rate of growth to the curbing of which war, famine, pestilence, civil commotion and rioting and chopping off of the country lent generous hands. Table 3 shows the total births by male and female, district by district, year by year, as well as the decennial average for the whole of West Bengal, while Table 7 correspondingly shows the total deaths. The devastating sweep of the famine will be evident from a comparison of the two tables. Only two districts, Hooghly and West Dinajpur, showed a small excess of births over deaths in 1943, and Darjeeling showed a small excess in respect of female births. All other districts went down heavily under the sickle of death, whereas none of them, except Calcutta, where a trend of depopulation seems to be chronic up to the end of 1948, showed signs of a decreasing population up to 1942. Between 1881 and 1890 there was a bad famine and the Census Report for 1891 had occasion to observe how it took from three to four years to restore the vitality of the worst affected tracts<sup>1</sup>. A similar period was taken after 1943. Births touched the lowest mark in almost all districts in 1944 the year immediately after the famine, while they touched the highest in 1946. The excess of

deaths over births continued in Burdwan, Bankura, Midnapur, 24-Parganas and Malda in 1943 and 1944; in Howrah, Nadia, Murshidabad, Jalpaiguri and Darjeeling through 1943, 1944 and 1945. In Calcutta excess of deaths over births chimed in with this trend and swelled the figures inordinately. Birbhum took the longest time to recover; excess of deaths over births continued till the end of 1947, to recover slightly in 1948 and 1949, to relapse again in 1950. Table 1 gives the births and deaths annually reported for the State of West Bengal for 1941-50 and confirms the above conclusions. The year 1950 was a year of bad health and epidemics and in Birbhum, Nadia and West Dinajpur deaths exceeded births. Births gained their peak in 1946,—life asserting itself over death—to taper off to normal proportions towards 1950, and figures of birth rates at the end of the decade as well as of death rates may nourish hopes of a small falling rate in both. But how far this seemingly reducing birth and death rates are real cannot be assessed with certitude, because on all showing there may have been a further fall in efficiency of registration since 1946. The average number of female births per 1,000 male births was 926.2 for 1941-50 and that for deaths was 918.5, and while the figures from year to year have fluctuated and show no definite regular trend it is a matter of concern that female deaths per 1,000 male deaths touched their peak in 1949 (955.6) for the decade, while figures for 1944-50 have been much higher than those for 1941-43 (Table 1).

<sup>1</sup> Census of India, 1891. Report Volume, p. 62.



**Births**—The distribution of births by sex, year and district during 1941-50 is shown in Table 3 while the birth rates are shown in Tables 4, 5 and 6. About 466 thousands of births per year were the normal experience for the State, 242 thousands being males and 224 thousands females, thus yielding a birth rate of 24·0 per mille on an average in the middle of each year, of which 12·3 per mille were males and 11·7 were females. There were more males born than females and the rate, 926·2 female births per 1,000 male births, for 1941-50 represents more or less the rate for the individual intermediate years. The birth rate starting at 25·5 in 1941 touched its lowest in 1944 at 17·9 as a result of the Famine, climbed again to 24·7 in 1946 to fall off steadily to reach 20·7 per mille in 1950. Before 1943 a birth rate of over 30 per mille of population was recorded by the districts of Birbhum (34·2 in 1941 and 34·8 in 1942), Nadia (32·6 in 1941 and 33·8 in 1942), Murshidabad (34·5 in 1941 and 33·0 in 1942), Jalpaiguri (30·7 in 1941 and 30·9 in 1942) and Darjeeling (30·1 in 1941), and a birth rate below 20 per mille was noticed only in the districts of Howrah (19·7 in 1941 and 15·7 in 1942), Calcutta (13·9 in 1941 and 9·4 in 1942) and Malda (17·9 in 1941 and 14·0 in 1942). The birth rate immediately after the Famine (1944) was lower than that in 1941 in almost all districts, and the proportionate fall in the birth rate was maximum in the district of Murshidabad (17·9) to be followed by Nadia (19·3), Birbhum (20·6), Darjeeling (20·5) and Jalpaiguri (21·2). Thus the districts where birth rates were the highest in 1941-42 showed the greatest relative fall in birth rate in 1944, decidedly a greater rate of fall than those districts which showed a smaller birth rate in 1941-42. Calcutta has been showing a steadily climbing birth rate since 1943, one reason for it possibly being greater efficiency in registration.

**Deaths**—Deaths by year, district and sex and averages for the decade are given in Tables 7, 8 and 9. About 429 thousand deaths per year were the normal experience for the State, 224 thousand being males and 205 thousand females, thus yielding a death rate of 20·3 per mille on an average in the middle of each year. The average specific death rate for males for 1941-50 was 19·4 per mille and for females 21·2 per mille. The specific death rate (number of deaths per 1,000 of the same sex) for females was found to be greater than that for males for every year of the decade in the districts of Burdwan, Hooghly (except in 1943), Howrah (except in 1943), 24-Parganas (except in 1943), Calcutta, Nadia (except in 1941, 1942 and 1945), Jalpaiguri and Darjeeling. The exceptions for 1943 in Hooghly, Howrah and 24-Parganas may well have been due to defective registration of female deaths in the Famine year.

The remaining districts do not show any noticeable preponderance of male deaths per 1,000 males over female deaths per 1,000 females, but just a narrow often doubtful margin. The preponderance of female deaths per mille females over male deaths per mille males has been less than 2 in most districts and years but in Calcutta was as much as 20·2 in 1950, 18·6 in 1943, 18 in 1943, 16·1 in 1944, 15·4 in 1949, 14·4 in 1947, 12·1 in 1945, 11·5 in 1941, 11·1 in 1946, 5·5 in 1942 and 14·3 as the annual average for the decade (calculated on the estimated population at the middle of each year). This is 86 per cent. more than the specific death rate for males in Calcutta and the reason should be investigated.

The maximum deaths were registered in Burdwan, Hooghly, Howrah, Calcutta, Malda, West Dinajpur and Jalpaiguri in 1944, the year following the famine. It is possible that deaths in these districts had been greater in 1943, and went unregistered. Of these, none except Burdwan and West Dinajpur was a surplus rice-growing district. Deaths touched their maximum in 1943 in the other districts (Birbhum, Bankura, Midnapur, 24-Parganas, Nadia, and Murshidabad) all of which were either surplus or self-sufficient in food-grains in normal times. Before 1943, death rates above 25 per mille were recorded in the districts of Nadia and Darjeeling, a death rate above 20 but below 25 per mille in Birbhum, Bankura, Murshidabad and Jalpaiguri, a rate below 20 in the remaining districts, the lowest being Malda. In 1943 all districts showed very high death rates, Nadia recording the maximum, followed by Birbhum and Murshidabad where the death rate was around 30 per mille. The rise in death rates between 1941 and 1943 was maximum in the Nadia district and next in Murshidabad where, it is pertinent to note, birth rates were the highest before 1943. Following the trend for birth rates, it may be observed that those districts in which the death rate was high in 1941-42 showed a proportionately greater rise in its rate in 1943 than other districts where the death rate was comparatively low before 1943.

**Deaths by age and sex and communities**—These are given in Tables 8-15. The force of mortality was found to be greater among females than among males, although the actual number of male deaths was more than female deaths. This apparent contradiction may be due to two causes: the preponderance of males over females in the State and the steady immigration of a large male population. The greater mortality among females must be a big factor in the steady decline of the female population of the State, where the gap between the number of males and females has been steadily widening since 1901. The ratio of female deaths to 1,000 male deaths

was an annual average of 918.5 for the decade, but as has already been noted, female deaths per 1,000 male deaths have been greater in the years 1944-50 than in 1941-43. The greater mortality among females than among males,—a circumstance contrary to the expectations of a civilised country—is itself a grave enough reflexion on the state of its public health and the fact that it has been worse in the past three years than previously probably indicates how inadequate existing medical and public health measures have been to cope with a sudden influx of over 2.1 million refugees.

It may be mentioned in passing that in 1943 female deaths exceeded male deaths only in Burdwan, Calcutta, Nadia, Jalpaiguri, West Dinajpur and Darjeeling. But in 1944 female deaths exceeded male deaths in these other districts as well as in those of 1943: Birbhum, Hooghly, Howrah and 24-Parganas. In Hooghly, Howrah and Calcutta undernourishment and unemployment may have removed many women who were residents as well as those who had gathered from other districts.

The specific rate of female deaths during the decade was higher than that of male deaths in the age groups of 1-5, 5-10, 15-40 and 60 and above, while the specific death rate for males were higher than that for females in the age groups 0-1, 10-15 and 40-60 years. This more or less corresponds to a universal trend but the differences are far more acute than in western countries and absolute figures, even as they are, are depressing. The reasons for the higher specific mortality among females in the age-groups 1-5, 5-10, and 15-40, and 60 and above, not only as an annual average for the decade but for each year, may be found in the comparative neglect to which female children below 10 and women above 60 years of age are subject, greater risks attendant on women in the reproductive stage 15-40. Women enjoy a lower specific mortality than men only in the age groups 10-15 and 40-60, in the former because nature endows them with greater sturdiness in that period as is universally observed; in the latter because they have gone through the reproductive stage and are left in relative peace and comfort. Also because the hazards of life are greater for males in the age group 40-60 which are increased by the fate of the vast majority of males at these ages finding themselves the only breadwinners of their families and therefore bearing all the attendant strain and anxiety. Thus, these two groups do not indicate any exceptional social attention or medical aid, and the overall picture contributes to a steady decline of females.

The specific death rates according to ages show the normal U shaped curve. The bottom of

the U is at the age group 10-15 years, the death rate for infants between 0 and 1 being 172.1 for males and 156.0 for females, the death rate for the age groups of 60 years and above being 84.6 for males and 94.4 for females. Table 9 will show that infants and children up to 5 years of age fell the easiest victims to the 1943 famine, and next came persons aged above 30 years. Persons between the ages of 5 and 30 years suffered least and fought the Famine best.

Tables 10-12 illustrate and confirm the above remarks in detail. The districts of Howrah, 24-Parganas and Calcutta where the hazards of life for males are greater than those for females showed a greater number of male deaths than females, although the picture for specific mortality rates for males and females are necessarily different. The reproduction age takes a heavy toll of women, 1,246 female deaths for every 1,000 male deaths in age group 15-20, and 1,296 female deaths per 1,000 male deaths in the age group 20-30. The proportion of female deaths to 1,000 male deaths was an annual average of 918.5 for the decade, but as will be evident from this discussion this average conceals a number of gaping wounds which cry out for vigorous social and public health measures. The difference between male and female deaths greatly widened in 1943, the famine year, which can be partly explained by the defect in registration of female deaths at this period. But this difference narrowed down in later years. In Birbhum female deaths per 1,000 male deaths exceeded 1,000 in 1944 (1,035.2), 1945 (1,028.1), 1946 (1,012.9) and 1949 (1,015.7), and the same happened in Midnapur in 1948 (1,000.8) and 1949 (1,017.0) and it occurred also in Nadia in 1949 (1,017.0).

Tables 13 and 14 will show that female deaths per 1,000 male deaths are lowest among Christians (851.6 for the decade) and highest among Hindus (922.5) and intermediate for Muslims (896.3). An appreciable seasonal variation in the monthly averages of female deaths per 1,000 male deaths for all religions during the decade is noticeable in Table 15, the highest rate being touched in November and the lowest in June. In November, disease and confinement strike jointly their hardest while in June the comparative slackness of disease and paucity of confinements lower the rates. The female death rate per 1,000 male deaths for Hindus reaches its peak in November (970.4) while that for Muslims touches 979.9; the trough is reached in June, Hindus standing at 894.6 and Muslims at 841.5.

*Deaths classified by causes of death*—This is where, next to overall defective registration of births and deaths, we find registration most at fault. Whereas even in 1939 the Bureau of the

Census of the U. S. A. claimed that "about nine-tenths of all births and an even higher proportion of deaths which occur yearly in the United States are attended by physicians", it would not perhaps be an exaggeration to assert that about nine-tenths of all births and an even higher proportion of deaths in our country are not attended by qualified or unqualified midwives or physicians. Consequently causes of still birth (or an accurate record of it), death of infants at birth, maternal and infant mortality have never been properly investigated in our land except for small samples, and diseases causing death at ages over one year go improperly or fancifully recorded. It will presently be seen that in those districts where medical attention is more easily procurable deaths due to "Fever" have showed a steady decline. Causes of death are left to the fancy of the illiterate village watchman. Even in rural or town hospitals the clinical and therapeutic standards are such as would put under doubt quite a proportion of the declared causes of death. Against such a background it

is pleasant to note the even texture of the figures for each district over the decade; they even display trends. And be it noted that the figures are all crude figures and no effort has been made to graduate them.

Tables 15 series exhibit deaths due to different causes. The average number of annual deaths by sex due to each major cause during the decade together with their rates and proportion to total deaths is shown in Statement 3.

It will appear that about 54 per cent. of total deaths is claimed by Fever, a term which, frankly, means lack of diagnosis and perhaps treatment. 9.1 per cent. goes under respiratory diseases other than T. B. of the lungs, 6.7 per cent. under dysentery and diarrhoea, 4 per cent. under cholera, 2 per cent. under smallpox, 1.7 per cent. under pulmonary tuberculosis, and under 1 per cent. for other diseases. The magnitude of the problem for the State is thus obvious. The annual death rate by principal causes is given in Statements 3 and 4.

### STATEMENT 3

*Average number of Annual Deaths by Sex due to several causes with their Rates and Proportion to Total Deaths 1941-50*

	DEATHS.		RATE		PROPORTION		TOTAL
	Male	Female	Male	Female	Male	Female	
Cholera . . . . .	9,034	8,855	.8	1.0	40.3	43.0	41.0
Fever excluding Malaria and Kala-azar . . . . .	66,843	59,676	5.8	6.1	298.3	290.0	294.3
Small-pox . . . . .	4,252	4,267	.4	.4	19.0	20.7	19.8
Plague . . . . .	7	2	.001	.0002	.03	.01	.02
Dysentery and Diarrhoea and enteric group of fevers . . . . .	14,755	13,956	1.3	1.4	65.8	67.8	66.8
Respiratory diseases other than T. B. of lungs . . . . .	19,115	12,523	1.7	1.3	85.3	60.8	78.6
Suicide . . . . .	552	539	.05	.1	2.5	2.6	2.6
Child birth . . . . .	..	3,391	..	.3	..	16.5	7.9
Malaria . . . . .	51,923	50,747	4.5	5.2	231.7	246.6	238.9
Kala-azar . . . . .	1,383	958	.1	.1	6.2	4.7	5.4
T. B. of lungs . . . . .	4,826	2,621	.4	.3	21.5	12.7	17.3
Snake bites . . . . .	873	771	.1	.1	3.9	3.7	3.8
					774.5	769.1	771.8

### STATEMENT 4

*Decennial Death Rates per 1,000 Population in West Bengal 1941-50*

Years	Cholera	Fever	Small-pox	Dysentery, Diarrhoea and Enteric Group of Fever	Malaria	Kala-azar	T. B. of Lungs
1941	.7	9.2	.4	1.2	4.0	.06	.38
1942	.5	8.5	.06	1.1	4.0	.07	.31
1943	2.7	15.3	.1	1.9	7.8	.09	.32
1944	1.9	16.3	1.1	1.7	7.9	.09	.35
1945	.4	11.7	1.2	1.2	5.9	.12	.33
1946	.5	10.6	.2	1.2	4.8	.15	.24
1947	.5	9.6	.1	1.3	3.9	.14	.36
1948	.6	9.1	.4	1.3	3.6	.11	.38
1949	.6	8.7	.1	1.3	3.6	.12	.37
1950	.6	7.7	.6	1.3	2.7	.09	.36

Except for two understandably big leaps (in 1943, the famine year, and 1944, the aftermath) cholera has remained almost parallel to the base at the mean rate of .6 per mille. So has smallpox at .2 with two big leaps in 1944 and 1945 (the years following the famine) and two smaller leaps in 1948 and 1950 (the years of heavy influx of displaced persons). So have dysentery and diarrhoea remained steady at the mean rate of 1.3 (except for 1.9 in 1943 and 1.7 in 1944) and Kala-azar at the mean rate of .14 per mille. Malaria shows a slight decline from 1942 with peaks in 1943-46. T. B. of the lungs shows an upward trend during the decade.

The districts of Howrah, 24-Parganas, Calcutta, and Nadia recorded an average annual rate of deaths due to cholera of about 1 per mille, while Burdwan, Birbhum, Bankura, Midnapur, Hooghly, Murshidabad, Malda and West Dinajpur showed rates ranging between .5 and 1 per mille. Jalpaiguri showed a mean rate below .5 per mille and Darjeeling, the lowest mean rate of .1 per mille during the decade. The low rate in Jalpaiguri may be ascribed largely to the improved and protected water-supply in the majority of tea gardens which cover the district, and that in Darjeeling to a similar reason and the temperate climate. Nowhere else do the rates show the beneficent action of preventive inoculation or improved water-supply.

Very similar is the picture presented by smallpox. It reached peaks in 1944 and 1945 and again in 1950 for the State as a whole while individual districts suffered in no fixed pattern. Calcutta and Howrah showed the maximum death rate from smallpox (where however public health staff *per capita* are the largest), while Jalpaiguri, Darjeeling and Malda recorded the minimum. Dysentery and diarrhoea were prevalent in all districts together with respiratory diseases. There is no marked trend of decline and therefore no sign that the scourge is under control.

The worst districts for Fever were Birbhum, Nadia and Murshidabad while Hooghly, Howrah, 24-Parganas and Calcutta were better off. It should be noted that Birbhum, Nadia and Murshidabad constitute the central portion of the State where medical and public health conditions are poor. This may account for a large number of deaths having been returned as Fever. By contrast there is a larger proportion of qualified and unqualified medical practice in Hooghly, Howrah, 24-Parganas and Calcutta—which are predominantly urban;—mention of the causes of death is naturally more specific in these districts thus extricating a large number of deaths from the anonymity of Fever.

The decline in Malaria may be ascribed in a large measure to the intense drive of mepacrine,

atabrine, paludrine and quinine that followed the 1943 famine and continued unabated till last year. Mention also must be made of the antimosquito campaign conducted by the American, British and Indian Armies during World War II which made large tracts of the country pleasantly habitable and set up new standards of cleanliness and public health (for instance, Raja-bhatkhawa and the Duars of Jalpaiguri, Salbani and Khargpur in Midnapur, Ramporehat in Birbhum, Dhubulia and Ranaghat in Nadia, Panagarh in Burdwan and a number of places in 24-Parganas). The D.D.T. spraying conducted by the State in 1950 produced notable results and there is a new hope everywhere that Malaria is not inevitable. Malaria was worst in Birbhum, Nadia and Murshidabad, where the annual death rate was more than 9 per mille. Calcutta showed the lowest rate.

There is a very small but steady and noticeable decline in deaths from Respiratory Diseases other than T. B. of the Lungs in all districts except Malda and West Dinajpur; where they are surprisingly enough on the increase. This decline may be due to defective registration or to the increased efficiency of dispensaries and the large number of free beds in A. G., F. R. E., and general hospitals and to a more general use of sulpha drugs and penicillin among physicians. No marked trend is noticeable in suicides as only Howrah and 24-Parganas show large figures. Calcutta, by reason of her being a city, ought to show a larger number of suicides but they are probably masked by other declarations. Deaths from snake-bite are almost uniform over the State on the basis of number of persons per square mile and were at a level of .1 per mille, not by any means a small figure. Deaths from snake-bite were lowest in Howrah, Calcutta, Jalpaiguri and Darjeeling.

Happily, plague was confined only to Calcutta and Howrah; in Calcutta it flared up in 1949 but was quickly brought under control, and public health measures were very efficient in this direction.

Kala-azar was conspicuously low in Birbhum, Bankura, Midnapur and Howrah. West Dinajpur was notorious while Darjeeling was bad. Deaths from T. B. of the Lungs were highest in Calcutta, the minimum and maximum deaths per 1,000 deaths from all causes, being 47.2 (1943) and 82.8 (1942) for males respectively, and 50.5 (1943) and 103.6 (1942) for females respectively, the annual averages standing at 58.6 for males and 65.4 per mille deaths for females. Next in death from T. B. of the Lungs comes Darjeeling with annual averages of 53.2 for males and 51.6 per mille deaths for females, while the minimum and maximum for males were 42.0 (1946)

and 70.2 (1949) and those for females were 43.1 (1941) and 65.2 (1949). In other districts the intensity varied from .1 to .6 per mille during the decade.

A point to note about deaths from Kala-azar and T. B. of the Lungs is the very noticeably consistent small figures of female deaths from these causes in comparison to male deaths. This can only be explained by the comparatively poor diagnosis of these diseases amongst females than males. That this is so is amply supported by figures of deaths from these two causes in Calcutta, where because facilities of treatment for males and females are almost even, the rate of deaths from T. B. of the lungs of females per 1,000 deaths from all causes exceeds that of males and that for Kala-azar for females is within 1 per mille of that for males. By contrast, deaths from these two causes are recorded at much lower figures for females than for males in Darjeeling, and there is a wide margin between male and female deaths from these two causes in all other districts.

*Death rate from child birth*—Death rate from child-birth per 1,000 female death from all causes during the decade presents a depressing picture. For the State figures were highest in 1948 and 1949. In Burdwan the figure mounted steadily from 8.5 (1944) to 22.8 (1948) to fall to 16.4 in 1950, in Birbhum from 5.3 (1944) to 15.6 in 1948 to 8.1 in 1950; in Bankura from 7.5 (1944) to 17.0 (1946) to fall to 11.9 in 1950; in Midnapur from 8.9 (1943) to 22.8 (1946) to fall to 19.4 in 1950; in Hooghly from 14.2 (1945) to 24.2 (1948) and 18.1 in 1950; in Howrah it varied between 9.9 and 13.8 between 1943 and 1949 and stood at 6.3 in 1950. In 24-Parganas the figure was 8.1 in 1944 and steadily climbed to 19.3 in 1949 and dropped to 14.8 in 1950. In Calcutta it climbed from 1.6 in 1943 to 17.6 in 1949 and fell to 12.1 in 1950. In Nadia it rose from 4.2 (1943) to 23.1 (1948) and dropped to 13.8 in 1950, in Murshidabad from 3.6 in 1943 to 16.5 in 1948 and 12.2 in 1950; in Malda from 10.4 in 1944 to 22.9 in 1949 and 13.7 in 1950; in West Dinajpur from 22.9 in 1944 to 45.5 in 1949 to 29.1 in 1950; in Jalpaiguri from 29.5 in 1944 to 73.2 in 1942 to 56.2 in 1950; in Darjeeling from 18.5 in 1943 to 33.6 in 1949 to 16.2 in 1950. The steep rise from 1943-44 to 1949 may have been due to improved registration while it is not clear to which cause the fall in 1950 is to be ascribed. The average annual infantile mortality for the decade, it may be recalled, was 172.1 for males and 156.0 for females.

his book. Says Frazer "The population (England & Wales) was given at the Census of 1921 as 37,885,242. In the period of a hundred years, therefore, the population of England and Wales had increased from 12 million to more than three times that number. Such an increase could only have been achieved in the exceptional economic and industrial circumstances of this country in the nineteenth century with markets throughout the world clamouring for manufactured goods, for which food and raw materials were received in return. The birth rate was, however, falling rapidly mainly in the ranks of the middle and upper classes and, except amongst the very poor, the Victorian family of ten or a dozen children was seldom seen. In the period 1871-75 the birth rate had reached the peak figure of 35.5, and it began to fall rather rapidly after 1890, at a time when the general standard of living in the community as a whole had reached its highest point. By the quinquennium 1916-20, which included some of the war years, this figure had dropped to 20.1. There is little doubt that the rapid decline of the birth rate after 1890 was due very largely to the spread of the knowledge of contraceptive methods amongst people in the higher income groups, and there was an increasing tendency as the years went by for these methods to be adopted by the better-off skilled workers. But the use of contraceptives must be regarded as only the means by which, largely, the birth rate was reduced, and the desire for smaller families, a social phenomenon of great consequence in the twentieth century, can be traced to a number of causes, including the emancipation of women and the general demand for more luxury and more comfortable conditions of living. The birth rate rose again in 1920 and 1921 as a result of the demobilisation of the armed forces, but later in the decade the tendency towards a decline in the annual number of births reasserted itself, and in the period 1926-30 the rate had dropped to 16.7.

"The declining birth rate was, however, masked by an almost equal reduction in the death rate, which in the period 1916-20 had declined to the figure of 14.4. Until the end of the nineteenth century the infantile mortality rate had remained obstinately at or near 150 but after 1900 a highly welcome decline took place. In the period 1901-05 this figure had dropped to 138, in 1911-15 to 110, and in the quinquennium 1916-20 to 90. The reduction of the infantile mortality rate to the latter figure meant that, as compared with the nineteenth century, the lives of 60 infants, out of each 1,000 born, were being saved each year, and this was a substantial offset to a declining birth rate. (Pp. 354-5.)

In 1950 W. M. Frazer published 'A History of English Public Health 1834-1939' and the following information has been extracted from

“So ended the last of the cholera outbreaks in this country (1893). No outbreaks of cholera occurred in this country between the years 1866 and 1893. For that occurring in 1831-2 there are no mortality statistics available. In the epidemic of 1848-9 there were 54,398 deaths, in 1853-4, 24,516 deaths, in 1866, 14,378 deaths and in 1893, 135.” (P. 168.)

“This epidemic (smallpox, 1870-3), which occurred throughout England from the end of 1870 to the close of the second quarter in 1873, was part of a world-diffused pandemic. From the last quarter of 1870 to the end of the first quarter in 1873 when the outbreak terminated, the number of deaths from smallpox in England was 44,079 out of which 10,287 were contributed by London. In the London Smallpox and Vaccination Hospital the case-mortality rates for the years 1870 and 1871 were, respectively, 66.2 and 77 per cent. in unvaccinated persons; and, in the two years combined, the rate amongst the vaccinated was 15 per cent. Dr. Seaton, who compiled this report for the Local Government Board, emphasizes that, in spite of the severity of the smallpox outbreak of 1870-3, the country had been saved from something very much worse by the system of vaccination which had been in force for 30 years; and he observes that the mortality of this epidemic, alarming as it had been, had not approached what was the *usual annual* smallpox mortality of the Kingdom at the time when vaccination was unknown. ‘The average annual smallpox death rate of the metropolis in the pre-vaccine period was from 400 to 500 per hundred thousand of population; the mean annual death rate of this epidemic was 148, having in 1871 been 243 and in 1872, 54.’ (Pp. 169-70.) The total notifications of smallpox in London from the beginning of the epidemic (November 1901) to the end of March, 1902, amounted to over 6,000. (In Liverpool) the outbreak lasted until December, 1903, and caused much suffering, during the course of which 2,278 persons were found to be suffering from the disease. (Pp. 289-90.) What was noteworthy about this epidemic was that it had died down completely by the end of 1906, and had scarcely left a trace behind it. From the end of 1906 up to the present day, the amount of severe smallpox (*Variola Major*) in any period has been very small, and such outbreaks as have occurred were mainly due to imported cases which had escaped

through the net of the Port sanitary authorities. (P. 370.)

“The more important of the facts about the transmission of plague were established by the Indian Plague Commission. As a prophylactic; Haffkine’s vaccine has been used in areas subject to plague epidemics with some success. Plague was last seen in epidemic form in this country in 1665-6 . . . Careful precautions are taken at the ports to destroy rats on ships by fumigation. (Pp. 269-70.)

“By the second decade of the twentieth century the main infectious diseases which had so much affected the mortality rates during the previous hundred years had been almost, if not entirely, stamped out. Apart from occasional imported cases, typhus, cholera and relapsing fever had disappeared with the abolition of the conditions which favoured their spread, and the enteric group of diseases was decidedly less troublesome than before. In 1911 13,852 cases of these diseases were notified, in 1914 8,778, and in 1916 5,564. (P. 364.)

“The value of publicity and of directing attention to the exact cause of maternal deaths, instead of to generalities, was shown in what has come to be known as the “Rochdale experiment” which was begun in 1931. For the preceding ten years, Rochdale had the unenviable distinction of having the highest Maternal Mortality rate in the country. Dr. Andrew Topping who became Medical Officer of Health in 1930 established the fact that the great majority of deaths were due to absence of adequate antenatal care and to unnecessary interference in labour on the part of doctors, and not occult rickets, ‘women working in the mills’, smokeladen atmosphere, etc., which had been advanced as causes. Frank exposure of the real causes by public lectures and in the local press, extension and improvement of antenatal and domiciliary midwifery services, together with cooperation from general practitioners, brought the rate down to well below average within 18 months and it has remained at a comparatively low level since then. (P. 418.)

“Another favourable factor was the mortality rate from tuberculosis (all forms) which, in the period 1916-20, had fallen to 1.4 per thousand of the population.” (P. 355.)

“Is it the pig that makes the sty or the sty the pig?”

—Report of the Royal Commission on the Housing of the Working classes, 1885 (quoted by W. M. Frazer in *A History of English Public Health*).

*Health Services of West Bengal*—A casual observer or even a critic of the Health Services of West Bengal will admit the considerable achievements of the Department of Public Health since 1947 in the reorganisation of health services, improvement of rural water supply, inoculations and vaccination, the increase in the number of mobile medical units, sanitary and health staff, improved supply of medicines to itinerant health visitors, dispensaries and hospitals. A bold step has been taken in the building up of rural health centres, in unions and thanas, in the rapid expansion of hospital beds throughout West Bengal, in an improved supply of women health visitors and midwives. The major hospitals in Calcutta and district towns have received beneficent attention and not a few of them have been enlarged and more fully staffed. The Government recently has created a number of new municipalities thus bringing their population within the ambit of municipal amenities.

All this ought to have reflected a substantial improvement of vital statistics figures were it not for the serious problems of sanitation and public health created by a sudden influx of 2·12 million displaced persons from East Bengal the majority of whom had to be huddled into make-shift camps of canvas and bamboo. The effect has also been masked by the general conditions of living which show no signs of improvement, but rather of deterioration. This section will briefly deal with the background of the Vital Statistics discussed above and will make the question, quoted above, which a Royal Commission in England put to itself in 1885, appear fraught with the deepest of meaning.

In 1842 Edwin Chadwick submitted his Report of an Enquiry into the Sanitary Condition of the Labouring Population of Great Britain and made the following observations (pp. 369-71 of the Synoptical Volume quoted by W. M. Frazer in *A History of English Public Health* pp. 18-19) which apply with particular force and poignancy to present conditions in our country and put the finger on our malady. These points had of course been made earlier by Malthus, but whereas Malthus's dissertation was wholly gloomy, Chadwick's language betrays great determination to alter the state of affairs that he had found the country in:

“That the various forms of epidemic, endemic and other disease caused, or aggravated, or propagated chiefly amongst the labouring classes by

atmospheric impurities produced by decomposing animal and vegetable substances by damp and filth and close and overcrowded dwellings prevail amongst the population in every part of the Kingdom, whether dwelling in separate houses, in rural villages, in small towns, in the larger towns—as they have been found to prevail in the lowest districts of the metropolis.

“That such disease, wherever its attacks are frequent, is always found in connexion with the physical circumstances above specified, and that where those circumstances are removed by drainage, proper cleansing, better ventilation and other means of diminishing atmospheric impurity, the frequency and intensity of such disease is abated; and where the removal of the noxious agencies appears to be complete, such disease almost entirely disappears”.

“That the formation of all habits of cleanliness is obstructed by defective supplies of water”.

“That the annual loss of life from filth and bad ventilation is greater than the loss from death or wounds in any wars in which the country has been engaged in modern times”.

“That the ravages of epidemics and other diseases do not diminish but tend to increase the pressure of population”.

“That in the districts where the mortality is the greatest the births are not only sufficient to replace the numbers removed by death, but to add to the population”.

“That the younger population, bred under noxious physical agencies, is inferior in physical organisation and general health to a population preserved from the presence of such agencies”.

“That these adverse circumstances tend to produce an adult population shortlived, improvident, reckless, and intemperate, and with habitual avidity for sensual gratifications”.

“That the primary and most important measures and, at the same time, the most practicable, and within the recognised province of public administration, are drainage, the removal of all refuse of habitations, streets and roads and the improvement of the supplies of water”.

“That the expense of public drainage, of supplies of water laid on in houses, and of means of improved cleansing would be a pecuniary gain, by diminishing the existing charges attendant on sickness and premature mortality”.

With these observations as a background a series of official statistics will be quoted, with the minimum of comment, to illustrate the state of (a) food-production, (b) roads, (c) protected water-supply, (d) housing in crowded areas and (e) diet of the majority of our population. The statistics quoted are all of recent compilation and official and are intended to place the tasks of the Government in the Department of Public Health in a correct perspective. The presenta-

tion of statistics will be fragmentary yet sufficient to indicate the magnitude of the task.

### (a) Food Production

Statement 5 below is quoted from page 11 of Prospectus for Agriculture in West Bengal (Government of West Bengal 1949) and gives the geographical distribution of principal crops and Statement 6 from page 12 of the same pamphlet.

#### STATEMENT 5

#### Geographical Distribution of Principal Crops (Area in 1,000 acres)

Name of District	Paddy	Pulses	Oilseed	Sugar-cane
24-Parganas . . . . .	1,445	114	8	2
Nadia . . . . .	530	174	13	7
Murshidabad . . . . .	785	280	13	12
Midnapur . . . . .	1,854	98	12	4
Bankura . . . . .	688	12	34	2
Howrah . . . . .	206	36	..	1
Burdwan . . . . .	1,023	47	2	9
Birbhum . . . . .	735	49	2	8
Hooghly . . . . .	467	30	1	3
Malda . . . . .	487	45	25	2
West Dinajpur . . . . .	611	16	34	2
Jalpaiguri . . . . .	426	7	34	2
Darjeeling . . . . .	63	..	3	..
<b>TOTAL</b>	<b>9,320</b>	<b>908</b>	<b>150</b>	<b>54</b>

  

Name of District	Wheat	Potato	Jute	Other vegetables
24-Parganas . . . . .	..	5	35	82
Nadia . . . . .	9	1	26	140
Murshidabad . . . . .	42	6	33	83
Midnapur . . . . .	2	10	9	102
Bankura . . . . .	11	3	..	49
Howrah . . . . .	..	6	4	12
Burdwan . . . . .	7	15	5	37
Birbhum . . . . .	11	5	..	13
Hooghly . . . . .	1	29	28	22
Malda . . . . .	11	1	23	180
West Dinajpur . . . . .	3	3	16	29
Jalpaiguri . . . . .	2	6	23	16
Darjeeling . . . . .	1	2	2	12
<b>TOTAL</b>	<b>100</b>	<b>92</b>	<b>204</b>	<b>776</b>

#### STATEMENT 6

#### Comparative yields of Rice, Wheat and Sugar-cane per acre in different countries and provinces.

Countries and Provinces	Yields per acre (in lb., 1924-33)	Countries and Provinces	Yields per acre (in lb., 1924-33)
Italy . . . . . Rice	2,903	Europe . . . . . Wheat	1,146
Japan . . . . . "	2,276	Canada . . . . . "	372
Egypt . . . . . "	2,153	United States of America . . . . . "	846
United States of America . . . . . "	1,469	Argentina . . . . . "	780
Siam . . . . . "	943	Australia . . . . . "	714
India . . . . . "	728	India . . . . . "	636
West Bengal . . . . . "	998	Bihar and Orissa . . . . . "	882
		United Provinces . . . . . "	786
		Punjab . . . . . "	738
		West Bengal . . . . . "	738
		Sind . . . . . "	593
		Central Provinces . . . . . "	444



## STATEMENT 6—concl'd.

Provinces		Yields per acre (in lb.)	Provinces		Yields per acre (in lb.)
Central Provinces . . . . .	Sugarcane (raw sugar)	3,394	Bombay . . . . .	Sugarcane (raw sugar)	5,782
Bihar . . . . .	"	2,280	Punjab (Undivided) . . . . .	"	1,918
Orissa . . . . .	"	4,352	West Bengal . . . . .	"	4,223

Statements 7 and 8 quoted from page 20 of the same pamphlet give (a) a Comparative Table of Farming Units and (b) Distribution of Acreage held by a Family in districts of West Bengal.

STATEMENT 7  
Comparative Table of Farming Units

Province	Number of acres per cultivator	Country	Average size of holdings (in acres)
Bombay . . . . .	12.2	England and Wales . . . . .	62.00
Punjab (undivided) . . . . .	9.2	Germany . . . . .	21.50
Madras . . . . .	4.9	France . . . . .	20.25
Bihar and Orissa . . . . .	3.1	Denmark . . . . .	40.00
Bengal (undivided) . . . . .	3.1	Belgium . . . . .	14.50
Assam . . . . .	3.0	U. S. A. . . . .	143.00
Central Provinces . . . . .	8.5	Holland . . . . .	26.00

From Economics of Indian Agriculture—Narayanswamy and Narashiman.

STATEMENT 8  
Distribution of acreage held by a family

District	Average area held per family (in acres)	PER CENT. OF FAMILIES WITH					Above 10 acres
		Less than 2 acres	2—3 acres	3—4 acres	4—5 acres	5—10 acres	
Bankura . . . . .	8.17	53.7	8.9	7.8	4.5	14.8	10.3
Birbhum . . . . .	4.64	15.1*	10.1	7.4	8.5	10.2	8.2
Burdwan . . . . .	5.63	23.6	10.9	8.9	10.8	26.6	12.8
Dinajpur* . . . . .	6.38	24.2	8.9	11.1	10.2	28.3	15.0
Hooghly . . . . .	3.74	32.4	13.1	13.0	10.9	18.8	10.2
Howrah . . . . .	3.53	53.2	14.3	5.1	4.5	17.5	5.4
Jalpaiguri* . . . . .	8.76	5.3	6.0	10.9	16.4	33.2	20.4
Malda . . . . .	3.84	54.2	7.8	8.4	6.9	15.9	6.8
Midnapur . . . . .	4.23	38.2	16.1	10.9	10.5	17.6	6.7
Murshidabad . . . . .	4.30	38.3	10.1	9.3	7.5	16.9	7.7
Nadia* . . . . .	4.83	16.8	9.6	10.8	10.1	20.3	11.8
24-Parganas . . . . .	4.33	56.5	10.7	8.6	4.7	10.9	7.2

\* Figures for pre-Partition districts.  
From the Report of Land Revenue Commission, 1940, Volume II, pages 114-5.

Statement 9, quoted from page 14 of the same pamphlet, gives the comparative efficiency of different categories of livestock in various parts of the world.

STATEMENT 9  
Comparative efficiency of different categories of livestock in various parts of the world

	APPROXIMATE ANNUAL MILK YIELD IN LBS. PER HEAD OF ANIMAL			APPROXIMATE ANNUAL EGG PRODUCTION PER BIRD	
	Cow	Buffalo	Goat	Fowl	Duck
Assam . . . . .	170*	430*	80‡	41†	39†
Bihar . . . . .	} 440*	} 1,770*	} 340‡	} 60†	} 130†
Orissa . . . . .					
Central Provinces . . . . .					
United Provinces . . . . .	800*	1,000*	125‡	70†	100†
Punjab . . . . .	1,400*	2,160*	440‡	55†	50†
Sind . . . . .	1,000*	1,500*	235‡	55†	40†
Bombay . . . . .	500*	885*	115‡	60†	150†
West Bengal . . . . .	420	960	80	36	75
Burma . . . . .	381‡	488‡	600‡	40†	180†
Denmark . . . . .	7,005‡	..	..	120†	..
Belgium . . . . .	6,889‡	..	..	115.6†	..
England and Wales . . . . .	5,576‡	..	..	120†	..
New Zealand . . . . .	5,118‡	..	..	..	..
Japan . . . . .	8,857‡	..	..	129.6†	..

\* Report on the Development of Cattle and Dairy Industries of India by H. C. Wright (page 174).

† Report on the marketing of eggs in India and Burma (pages 6-7 and page 27) (published by Government of India, 1938).

‡ Report on the marketing of milk in India and Burma (published by Government of India, 1941).

Statement 10, quoted from page 15 of the same pamphlet, gives the fish position in West Bengal. Fish is the only considerable animal protein, as will be presently seen, consumed by West Bengal.

## STATEMENT 10

*Fish Position in West Bengal*

* Requirement of fish in West Bengal.	32,000 maunds daily.
Average production of fresh fish in West Bengal.	2,000 maunds daily.
Production of dry fish	10,000 mds. annually. (=50,000 maunds of fresh fish).
* Requirement at Calcutta	6,800 maunds daily.

\* On the basis of 2 oz. per day per adult unit of the total population of 25.0 million for the Province and 5.0 million for Calcutta.

Figures furnished by the Fisheries Section of the Directorate of Agriculture, West Bengal.

## Supply at Calcutta market—

From within the Province	555 maunds daily.
From other parts of the Indian Dominion.	295 maunds daily.
From Eastern Pakistan	1,650 maunds daily.
Total supply	2,500 maunds daily.

## (b) Roads

Roads wield their influence in a thousand different ways. For our purpose, they help to distribute food and other consumer goods throughout the land and reach out sanitary and medical help wherever it is needed or wherever an epidemic breaks out.

We are badly handicapped for roads. Statement 11, taken from page 16 of the same pamphlet, gives a picture of Road Communication in West Bengal (1939-40).

## STATEMENT 11

*Road Communication in West Bengal (1939-40)*

District	Metalled roads in miles*	Unmetalled roads in miles*	Total	Length of metalled roads per 100 square miles
1 24-Parganas	366.3	5,154.0	5,520.3	6.7
2 Nadia†	122.5	6,446.3	6,568.8	4.2
3 Murshidabad	73.6	4,515.7	4,589.3	3.6
4 Burdwan	525.0	3,831.3	4,356.3	19.4
5 Birbhum	296.8	3,237.0	3,533.8	17.0
6 Bankura	508.9	2,371.5	2,880.4	19.2
7 Midnapur	622.4	2,000.0	2,622.4	11.8
8 Hooghly	181.2	2,365.8	2,547.0	15.0
9 Howrah	173.8	1,973.5	2,147.3	31.1
10 Jalpaiguri †	373.5	1,183.9	1,557.4	12.2
11 Darjeeling	260.3	438.8	699.1	21.7
12 Malda †	39.7	1,433.5	1,474.2	2.0
13 Dinajpur †	54.3	4,251.7	4,306.0	1.4
14 U. S. A.‡	..	..	..	100
15 U. K.‡	..	..	..	200

\*From the statement of the Communications and Works Department for the year 1939-40.

†Figures relate to pre-Partition districts.

‡From "A Plan of Economic Development for India (Bombay Plan)" published in 1944.

Statement 12, taken from page 12 of Road Problems of West Bengal (Government of West Bengal 1950) gives the Mileage of Existing Roads, surfaced and unsurfaced in the Different States of India.

## STATEMENT 12

*Mileage of Existing Roads, surfaced and unsurfaced, in the different States in India\**

State	Area in square miles	Population in thousands	Total mileage	Road mileage per 1,000 of population	Road mileage per sq. mile of area
West Bengal (including Cooch Behar)	..	21,862	12,154	0.56	0.41
Madras (including States merged)	127,610	49,825	38,540	0.77	0.30
Bombay (including Baroda and Kolhapur)	122,732	29,114	27,765	0.95	0.23
U. P.	106,247	55,021	31,986	0.58	0.30
Bihar	69,745	36,340	31,496	0.67	0.45
C. P. and Berar (including States merged)	130,451	20,648	12,427	0.60	0.10
East Punjab (including States merged)	37,447	12,698	10,636	0.84	0.28
Assam	50,210	7,404	10,975	1.48	0.22
Orissa (including States merged)	60,507	13,975	10,789	0.77	0.18

\*Source: Basic Road Statistics of India—Ministry of Transport, Government of India.

It will be seen from the above table that West Bengal, with her mean density of population nearly three times that of India as a whole, has only 0.56 mile of roads per 1,000 of her population. This is the lowest of the States in India and compares unfavourably with the figure for India as a whole (0.75). West Bengal, however, compares a little favourably with the other States in the length of such road mileage per square mile of area, which is nearly 0.41 to the square mile for West Bengal as against 0.19 for India as a whole. Only Bihar has a higher distribution with 0.45.

It is unnecessary to hold forth on the many handicaps from which a land is liable to suffer that is not endowed with good roads, and on bad roads (and consequently improper and insufficient drainage) public health measures or improvements become one of the first casualties.

### (c) Protected Water-supply

Statement 13 in two parts A and B gives the state of protected water-supply in the country. This does not give the whole or correct picture because tube-wells frequently go out of repair and as will be presently discussed in the section below even where there is an appearance of a good protected supply on tap, large settlements go without the benefit of it and it is the sum of experience of the writer who has been to all towns in West Bengal, that in none of them, not excluding the cities, is

the supply complete and universal to all persons within the limits of the town and a goodly fraction never enjoy protected water even for drinking. There is also a general prejudice in favour of collecting drinking water from ponds as well as flowing rivers (most of which reduce to stagnant pools in summer) even when protected water is to be had on tap, a prejudice which dies hard especially in those towns which bank the sacred river Bhagirathi (Hooghly). This prejudice, ordinarily unobserved, is particularly noticeable when a cholera epidemic is about in a town blessed with filtered water supply and a district officer nearly exhausts all the prohibitory arrows in his quiver to fight it but which refuses to take defeat. Protected water supply is practically non-existent in non-urban areas in spite of the many thousands of tube-wells sunk by the Government and local bodies for the simple reason that the tube-well head and mouth are not free from contamination. Out of a total of 6.2 millions of urban population in the State only 4.6 millions live in localities where a system of protected water-supply exists and if Calcutta were to be taken as a criterion it would not be a wide guess to say that only about 3.5 millions really enjoy a restricted (and not plentiful) supply of protected water throughout the year. This supply however goes mainly for drinking and bathing, while washing of clothes, crockery and utensils,—fruitful vehicles of contamination and contagion—are still washed in unprotected water.

## STATEMENT 13

### Part A

#### Protected Water Supply in urban localities in West Bengal in 1945 and 1949 (other than Calcutta City)

Serial No.	Name of Municipality	Area served (sq. miles)	Designed capacity of works	1945			1949		
				Approximate population served	Average daily supply in gallons	Average daily supply per-head of population in gallons	Approximate population served	Average daily supply in gallons	Average daily supply per-head of population in gallons
1	2	3	4	5	6	7	8	9	10
1	Bardwan.	3.30	703,080 gallons daily.	50,500	356,110	7.05	72,000	446,498	6.20
2	Baniganj.	1.85	150,000 gallons in 12 hours.	22,839	158,393	6.94	22,839	200,349	8.77
3	Asansol.	4.04	264,000 gallons in 12 hours.	48,006	408,000	8.50	48,006	408,000	8.50
4	Kalna	0.85	..	10,000	40,000	4.00	15,000	60,000	4.00
5	Suri	3.15	..	12,000	77,061	6.42	20,000	100,456	5.02
6	Bankura	3.50	192,000 gallons daily.	46,617	253,691	5.44	46,617	235,800	5.06
7	Midnapur	4.00	350,000 gallons in 10 hours.	43,171	519,612	12.01	60,000	457,548	7.63
8	Hooghly-Chinsurah	5.00	775,600 gallons daily.	49,081	660,813	13.46	49,081	660,813	13.46
9	Ranabaria	3.10	..	12,000	149,224	12.44	20,000	189,792	9.49
10	Rhadrowar	1.99	..	25,873	339,561	13.23	27,673	469,918	16.96
11	Champdany	1.65	..	31,833	413,249	12.96	31,833	414,393	13.02
12	Barampur	2.27	512,000 gallons in 10 hours.	56,349	543,726	9.82	80,000	674,000	8.43
13	Titagarh	0.80	..	13,610	127,697	9.38	20,000	133,072	6.64
14	Boverah	10.10	..	879,292	4,169,161	10.94	279,292	4,137,096	10.91
15	Garden Reach (in progress)	..	..	..	..	..	125,000	510,000	4.08
16	Tollyganj	6.18	..	32,900	240,309	7.61	32,000	235,652	7.36

## STATEMENT 13—concl'd.

## Part A

Serial No.	Name of Municipality	Area served (sq. miles)	Designed capacity of works	1945			1949			
				Approximate population served	Average daily supply in gallons	Average daily supply per-head of population in gallons	Approximate population served	Average daily supply in gallons	Average daily supply per-head of population in gallons	
1	2	3	4	5	6	7	8	9	10	
17	South Suburban	3.70	..	25,200	51,222	2.03	40,000	42,700	1.07	
18	South Dum Dum	5.98	..	..	..	..	62,200	..	..	
19	North Dum Dum	7.00	..	..	..	..	960	..	..	
20	Dum Dum	0.90	..	..	..	..	11,713	..	..	
21	Baranagar-Kamarhatti	8.50	..	100,000	693,422	6.93	200,000	1,006,410	5.03	
22	Bhatpara	5.00	..	150,000	1,077,154	7.18	160,000	1,149,279	7.18	
23	Tilagarh	1.50	..	57,416	1,942,160	33.83	57,416	1,907,320	33.22	
24	Barrackpore	4.50	..	..	..	..	36,444	..	..	
25	Barrackpore Cantonment	..	..	..	..	..	13,921	..	..	
26	Garulia	1.50	..	20,000	193,200	9.66	30,000	177,978	..	
27	Halisahar	5.50	..	..	..	..	35,438	..	..	
28	Naihati	1.68	..	42,163	282,137	6.69	42,163	243,767	5.90	
29	Kanchrapara Railway Colony	2.00	..	..	..	..	30,000	..	..	
30	Krishnagar	7.60	..	32,000	407,621	12.74	80,000	500,000	6.25	
31	Nabadwip	1.50	..	30,583	23,854	0.78	80,000	56,000	0.70	
32	Berhampur	6.60	612,000 gallons daily	40,804	353,872	8.67	70,000	375,502	5.37	
33	Englishbazar	1.50	112,000 gallons in 8 hours (can run 16 hours).	15,666	65,789	4.20	20,000	65,319	3.27	
34	Jalpaiguri	3.06	112,000 gallons per day in 8 hours (can run 16 hours).	27,000	158,854	5.88	23,000	156,627	5.59	
35	Darjeeling	4.85	Depends on rain fall.	25,873	796,082	30.77	25,873	746,877	28.87	
36	Kurseong	2.00	Depends on rain fall.	14,000	150,000	10.71	14,000	150,000	10.71	
37	Kallimpong	10.00	..	15,784	279,646	17.72	17,000	265,750	15.6	
							2,104,469	16,182,217		

## Part B

## Rural Water Supply in West Bengal in 1950

Name of District	No. of Ring wells and masonry wells	No. OF TUBE WELLS		
		New-Sunk	Re-Sunk	Repaired
1	2	3	4	5
Burdwan	..	29	112	4,936
Birbhum	20 M.W.	23	23	1,402
Bankura	4 R.C.C.	7	4	480
Midnapur	2 M.W.	169	73	6,076
Hooghly	..	7	70	3,450
Horwah	..	23	40	4,524
24-Parganas	7 M.W.	63	35	9,239
Nadia	..	38	32	2,736
				57
				(Jet washing system)
Murshidabad	..	51	25	8,625
Malda	..	17	..	717
West Dinajpur	..	30	32	1,241
Jalpaiguri	11	31	4	280
Darjeeling	..	..	..	..
Total, 1950		44	489	43,763
From 1946-47 to 1950	..	138	2,063	135,291

#### (d) Housing in crowded areas

Notwithstanding the lack of drainage, sewerage, ventilation in mudhouses, and planning in villages, the comparative absence of congestion in the rural areas make them still healthier places to live in than noxious and crowded urban areas. It is not however suggested that rural areas are less unhealthy, only that they are less noxious and foul of atmosphere than urban areas. This is perhaps a reason why in spite of all fruitful conditions of every kind of epidemic prevailing, the toll taken by epidemics, though appalling by civilised standards, is not really so in the primitive setting by which its extent ought to be assessed. The sun, personal cleanliness and hygiene among the people, and the universal habit of bathing must account for a great many lives that are claimed from disease and death while improvement in public measures must also come for its due share of praise.

The strength of a chain lies in its weakest link and the efficiency of public health measures must be judged from the condition that obtains in very crowded areas.

In 1949 the State Statistical Bureau published a 'Report on a Sample Enquiry into the Living conditions in the Bustees of Calcutta and Howrah 1948-49 (Government of West Bengal, 1949)'. This report is full of meat in its analysis as well as tables and gives a very thorough idea of how about 1 in every 3 persons lives in Calcutta and Howrah (1 million in 3 million). As for non-bustee areas most rooms in Calcutta—except what are known as the European localities—are an average size of 10 feet by 12 or less and about 11 feet high, where kitchens, baths and lavatories are to be shared with other families. In the census of 1951, 710,579 living rooms were counted in the Municipal area of Calcutta consisting of 32 Wards, and the population in this area was 2.548 million. To each living room therefore there are 3.5 persons and it should be remembered that a living room varies from one in which a man can barely lie down and stand up to that in the mansions of the very rich.

The mansions of the very rich usually contain few people and therefore this arithmetical average masks the real congestion. It will not be hazardous to surmise that the average number of persons per living room throughout the cities of Calcutta and Howrah, taking the best with the worst, will be about the same as that found in bustee areas, with this difference that other circumstances of ventilation, sanitation, water supply and amenities are superior in non-bustee areas. The following extract from page 13 of the Report gives a horrifying summary of the results of the Inquiry.

"About 11.3 per cent. of the total bustees of Calcutta and 12 per cent. of those of Howrah have been surveyed. Only 12 per cent. of the resident families in the bustees of Calcutta are lessees and the rest are tenants; 24.6 per cent. of the total lessees do not live in the bustee. At Howrah the respective percentages are 12.3 and 11.5. The majority of the tenements are one-roomed, the percentage for Calcutta being 93.3 and that for Howrah 97.6. Only 31.2 per cent. of the lessees at Calcutta bustees have registered documents in support of their claims, the figure for Howrah is slightly higher, being 40. No case of eviction of lessees was found at Howrah but the lessees at Calcutta are not so fortunate, 3 per cent. have been already evicted and slightly more than 5 per cent. have been threatened with eviction notices, etc. Among the tenants of the bustees of Calcutta 32 per cent. are non-Bengalees while 16.6 per cent. come from East Bengal. But at Howrah 80.2 per cent. of the tenants of the bustees are non-Bengalees and only 1.2 per cent. hail from East Bengal. On an average, a lessee of a Calcutta bustee enjoys 62.5 per cent. and a tenant enjoys 26.6 per cent. more floor space than those of a Howrah bustee. The average monthly income of a lessee of Calcutta is more than double that of a lessee of Howrah and the average income of a tenant of Calcutta is nearly one and a half times as much as that of a tenant of Howrah; 75 per cent. of the huts of the bustees of Calcutta have pucca floor whereas the figure for Howrah is only 36.6 per cent. Pucca walled huts have been found in the bustees, the percentages for Calcutta and Howrah being 28 and 9, respectively. Thatched roof was found in only 3 per cent. cases both at Calcutta and at Howrah. As regards ventilation it appears that the bustees of Howrah are better off than those of Calcutta as is apparent from the percentage of badly ventilated huts, which is 24 for Calcutta and 6 for Howrah. Arrangement for water supply is bad in both the cases; 61.7 per cent. of the huts of Calcutta bustees and 83.6 per cent. of those of Howrah have no arrangement for supply of water; 15 per cent. of the huts have kitchen both at Calcutta and at Howrah, but the percentage for huts having no arrangements for cooking is 4 at Calcutta while the corresponding percentage for Howrah is 10. Drainage is equally unsatisfactory at the two places, the percentage of bad drainage for Calcutta bustees is 42 while that for Howrah is 34; 17.3 per cent. of the huts of the bustees of Calcutta and 15.5 per cent. of those of Howrah have no latrines."

The following from page 14 of the Report gives the distribution of the number of rooms occupied by lessees and tenants at Calcutta and Howrah.

"It will be seen from the table that at Calcutta, a tenant family occupies on an average 1.10 rooms only, 92.3 per cent. of them occupying only a single room, whereas a lessee family lives in 2.73 rooms on an average, nearly 75 per cent. of them occupying more than two rooms. As a hut contains on an average 7.16 rooms, it is evident that the hut owner lets out the balance of 5.43 rooms which are occupied by a 5 tenant family. A bustee at Calcutta has, on an average, 6.38 huts having 52.12 rooms where 35.3 tenant families and 4.8 lessee families live. At Howrah a tenant family occupies 1.03 rooms on an average, 97.6 per cent. of them living in a single room. A lessee family on the other hand lives in 2.43 rooms on an average, 70.5 per cent. of them occupying more than 2 rooms. As a hut contains 8.73 rooms on average, the hut owner lets out the balance of 6.30 rooms which are rented out to 6 tenant families.

A bustee at Howrah has 5.58 huts having 48.75 rooms on an average where 35.4 tenant families and 5.1 lessee families live."

The state of water supply in the bustees is analysed at pp. 18-19 of the report as:—

"The deplorable condition of the water-supply in the bustees will be at once evident. Out of 3,179 huts in the bustees of Calcutta, only 1,216 huts have some arrangement of water-supply, possessing 1,246 taps, 106 wells and 15 tube-wells among them. There are some very bad cases; 157 huts out of 159 in ward no. 18, 123 out of 135 in ward no. 21 and 264 out of 342 in ward no. 25 have no arrangement whatsoever for the supply of water. The more fortunately situated huts are in ward nos. 5, 8, 9, 11 and 23, where 42 out of 58 huts, 35 out of 46, 42 out of 59, 24 out of 26, and 13 out of 20 huts have some arrangement for the supply of water. It will be found that all of these bustees are small in comparison with most of the remaining ones."

"The condition at Howrah can be realised from the fact that in only 11 out of the 67 huts, there is some arrangement for water-supply."

"On an average 61.7 per cent. of the huts in the bustees of Calcutta have no arrangement for any water-supply; 54.6 per cent. of the bustee dwellers live in such huts. Dwellers who are more fortunate in having water-supply are served at the rate of 25.6 persons per tap. The difference among the wards is very pronounced; the proportion of huts having no water-supply varying from 7.7 per cent. in ward no. 11 to 98.7 per cent. in ward no. 18.

Thus it is found that out of about 8.20 lakhs of people living in the bustees of Calcutta, as

many as 4.48 lakhs have to depend on street hydrants or ponds for their water-supply. At Howrah the corresponding figures are 15.7 thousands and 10.5 thousands, respectively."

Analysis of the percentage distribution of huts by nature of place of cooking is thus made:

"Separate kitchen is provided in only 15.5 per cent. of the huts in the bustees of Calcutta. In 70.0 per cent. of the huts cooking is done in some sort of verandah and in 10.4 per cent. of the huts it is done in the bed room. In 4.1 per cent. of the huts no cooking is done. The percentage of huts having a separate kitchen exceeds 30 in ward 31 only, 25 in wards 23\*, 29 and 32 and is less than 5 in wards 8, 13\* and 14. No separate kitchens were found in the sampled bustees in ward nos. 7\*, 10\* and 15\*. Cooking is done in the verandah in more than 70 per cent. of the huts in wards 1, 3, 5, 14, 18, 20, 22, 25, 26, 27, 28, 29 and 30. In 25 per cent. of the huts in ward 23\* there is no arrangement for cooking. In ward 15, the percentage is 22.7 and in ward 9, the percentage is 20.7.

"In the bustees of Howrah cooking is done in a separate kitchen in 14.9 per cent. of the huts, in verandah in 47.0 per cent. huts, in the bed room in 27.6 per cent. of the huts. In the remaining 10.5 per cent. huts there is no arrangement for any place for cooking. Thus, it will be found that whereas in 85.5 per cent. of the huts in the bustee of Calcutta, cooking is done either in a kitchen or in the verandah, the corresponding figure for Howrah is 61.9 only. The percentage of huts in Howrah where cooking is done in the bedroom is three times that at Calcutta and the percentage of huts at Howrah having no arrangement for cooking is two and half times as much as that at Calcutta."

Analysis of huts with or without latrines is made as follows:

"In the bustees of Calcutta 14.7 per cent. of the huts are without any latrines and 10.1 per cent. of the bustee dwellers live in these huts. Three types of latrines were found, viz., the "service" type, the "septic tank" type and "flushed" latrines connected with the Corporation's sewer system. The respective percentages are 63.5, 3.7 and 32.8, respectively. The service type is more common in wards 18, 19, 21, 24, 25, 28, 29, 30, 31 and 32, the septic tank type in ward No. 9 and the flushed type in the remaining wards. The percentage of huts not having any latrine varies from 50.7 per cent. in ward No. 6 to nil in wards 7\* and 14 and the percentage of people living in these huts ranges from 40.8 in ward no. 6 to nil in wards 7\* and 14. On an average a latrine is used by 23.0 persons, the number

\* The percentage is subject to a large sampling error due to the small size of the sample.

ranging from 11.1 in ward no. 31 to 45.2 in ward no. 5.

At Howrah, 13.4 per cent. of the huts have no latrines where only 5.7 per cent. of the bustee dwellers live. Only the "service" type of latrine was found in the sample, each of which was used by 21.1 persons on an average."

Comment is superfluous.

### (e) Diet

In 1899 B. Seebohm Rowntree made a social survey of his native City of York the results of which he set down in his book *Poverty*. W. M. Frazer in his *A History of Public Health* (p. 194) observes that Rowntree places the "Poverty Line" at the minimum necessary expenditure for the maintenance of merely physical health, and he calculates this amount on the basis of outgoings in respect of food, house rent (including rates), and household sundries (such as clothing, light, fuel, etc.). On the costs then (1899) ruling in York, the minimum necessary expenditure for a man, wife and two children, for example, was 18s. 10d. per week.

In 1935 Rowntree decided to repeat this investigation in order to ascertain what changes had taken place in the industrial and social lives of the people of York during the 36 years which had elapsed since the original inquiry. The results of the second survey were published by Rowntree in the year 1941 under the title of *Poverty and Progress*. In *The Human Needs of Labour* (1937) Rowntree, after a careful study of all the factors,

came to the conclusion that the "poverty line" could be fixed at the Standard of living attainable by a man, wife and three children (at 1936 prices and after paying rent) on a wage of 43s. 6d. a week. "Primary poverty", a term used in both the 1899 and 1936 surveys, is represented by the minimum sum on which physical efficiency could be maintained, which is, of course, much lower than that denoting the poverty line. In the 1899 investigation that sum was 17s. 8d. inclusive of rent, while in the later survey, with changes in the value of money, the corresponding figure was 30s. 6d. for urban families of five. As regards the proportion of the working-class population living under conditions of primary poverty, the figure of 15.46 per cent. in 1899 had fallen to 6.8 per cent. at the time of the second survey' (W. M. Frazer *Ibid* pp. 437-8).

In March 1946 at the instance of the Establishment Department of the Government of Bengal the Provincial Statistical Bureau conducted a small inquiry into the living conditions of the Bengali middle class "Bhadralok" and menials and submitted in 1947 a departmental report for official use only. Admittedly a very limited inquiry, it produced a series of tables which have both general and particular values as the following statements, borrowed from it, will reveal.

Statement 14, incorporated in this report, incorporating the results of the Calcutta Diet Survey of 1945, gives the *per capita* monthly consumption in quantity by expenditure level.

### STATEMENT 14

#### Calcutta Diet Survey, 1945

#### Per Capita Monthly Consumption and Quantity by Expenditure Level

Expenditure levels	0-50	51-100	101-150	
Number of families	66	348	361	
Average size of family	2.73	4.24	5.80	
Items	Units	Quantity	Quantity	Quantity
1 Rice . . . . .	Seer	8.629	8.555	8.585
2 Atta . . . . .	"	3.673	3.031	3.042
3 Chira and muri . . . . .	"	0.095	0.119	0.183
4 Bread . . . . .	"	0.012	0.057	0.093
5 Pulses . . . . .	"	1.536	1.355	1.328
6 Fish . . . . .	"	0.402	0.551	0.805
7 Meat . . . . .	"	0.025	0.170	0.205
8 Eggs . . . . .	Number	0.054	0.298	0.493
9 Milk . . . . .	Seer	0.751	1.515	2.048
10 Other milk products . . . . .	"	..	..	..
11 Vegetable ghee . . . . .	"	0.023	0.029	0.067
12 Edible oil . . . . .	"	0.622	0.612	0.553
13 Potato . . . . .	"	1.466	1.532	1.872
14 Other vegetables . . . . .	"	..	..	..
15 Salt . . . . .	Seer	0.530	0.486	0.488
16 Spices . . . . .	"	..	..	..
17 Sugar . . . . .	Seer	0.753	0.890	0.923
18 Gur . . . . .	"	0.116	0.129	0.193
19 Tea . . . . .	Pound	0.104	0.134	0.143
20 Other refreshment . . . . .	"	..	..	..
21 Total food . . . . .	"	..	..	..
22 Coal . . . . .	Maud	0.456	0.450	0.424

Statement 15 makes a comparison of Food expenditure levels in Bengal with that in other Value (Calories) in the average diet of different countries.

## STATEMENT 15

## Comparison of Food Value (in Calories) with other countries

Serial No.	Foodstuff	Balanced diet (Director of Public Health, West Bengal)	BENGAL									
			U. S. A.	Mexico	Germany	Great Britain	Poland	Turkey (Istambul)	Calcutta expenditure level Ra. 201-250	Outside Calcutta salary level Ra. 0-150 (per capita)	Outside Calcutta salary level Ra. 0-150 (per equivalent adult male)	Balanced diet, Dr. Akroyd
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Bread	..	666.8	1,177.2	1,109.8	1,039.4	1,746.3	2,312.4	35.0	..	..	..
2	Cake, Biscuit, etc.	..	..	..	..	..	..	..	..	..	..	..
3	Flour	412	286.5	..	141.0	339.3	285.5	114.4	317.0	163.0	211.0	..
4	Cereals (Rice, etc.)	1,010	161.0	208.9	63.2	..	101.6	103.5	939.0	1,290.0	1,679.0	1,470.0
5	Pulses	303	..	..	..	..	..	..	141.0	127.0	165.0	294.0
6	Meat	57	354.9	268.3	191.4	258.7	246.3	99.0	12.0	12.0	16.0	..
7	Fish	56	23.0	2.5	17.8	..	12.6	16.7	31.0	36.0	47.0	132.0*
8	Animal fat	7	..	..	..	..	..	..	..	..	..	..
9	Vegetable fat	..	77.5	..	18.1	..	10.3	..	..	11.0	16.0	..
10	Vegetable oil	407	111.1	12.9	31.0	..	..	201.5	211.0	173.0	227.0	528.2
11	Milk	185	212.0	224.0	196.0	194.6	146.7	40.9	61.0	58.0	75.0	144.0
12	Milk products	..	24.1	18.6	14.2	27.3	8.2	13.3	..	..	..	..
13	Eggs	50	116.0	39.3	29.7	93.9	22.1	23.3	4.0	5.0	7.0	..
14	Potato	44	224.2	29.3	433.3	297.4	533.0	37.2	63.0	35.0	44.0	81.5
15	Vegetables	46	42.8	27.1	20.0	..	31.1	49.8	..	6.0	7.0	..
16	Onion	..	..	..	..	..	..	..	..	..	..	..
17	Sugar	120	422.5	317.8	214.1	518.2	240.3	184.5	124.0	93.0	122.0	..
18	Gur	112	..	..	..	..	..	..	31.0	29.0	38.0	..
19	Fruits	24	..	..	..	..	..	..	..	..	..	32.0
TOTAL		2,833	2,722.4	2,325.9	2,479.6	2,768.8	3,384.0	3,201.5	1,969.0	2,038.0	2,654.0	2,549.7

\* If milk is absent from the diet, this should be included. The total in this column omits the figure for meat and fish.

Statement 16 makes a comparison of various diets in Bengal with Bengal Jail Diets (quantities). 'It will be seen that the diet of the Bengali middle class is not only comparatively deficient in calories, it is much inferior in other food values

to the diets of divisions I and II prisoners of both classes A and B. The deficiency is well marked in vegetable proteins (pulses), edible oils, sugar and fish'.

## STATEMENT 16

## Comparison of Various Diets with Jail Diets (Quantities)

Serial No.	Foodstuff	Balanced diet for adult male (Director of Public Health, West Bengal)	JAIL DIET				Calcutta expenditure level 201-250	OUTSIDE CALCUTTA SALARY LEVEL 0-150	
			DIVISION I AND II		DIVISION III			per capita	Per equivalent adult male
			A	B	Class I	Class II			
1	2	3	4	5	6	7	8	9	10
1	Rice	5.00	8.00	3.00	12.00	10.00	4.65	6.39	8.31
2	Wheat	2.00	2.00	3.00	..	..	1.71	0.79	1.03
3	Pulses	1.50	2.00	1.30	2.50	2.50	0.70	0.63	0.82
4	Leafy vegetables	..	..	..	..	..	..	..	..
5	Non-leafy vegetables	2.25	4.00	2.50	4.00	4.00	..	..	..
6	Fruits	1.50	..	..	..	..	..	..	..
7	Potatoes	0.75	2.00	2.0	..	..	1.08	0.60	0.78
8	Onion	..	..	..	..	..	..	..	..
9	Milk	6.00	1.00	1.00	..	..	..	0.16	0.21
10	Milk products	..	2.00	..	..	..	1.64	1.57	2.04
11	Sugar	0.50	1.00	1.00	..	..	..	..	..
12	Gur	0.50	0.25	1.00	..	..	0.52	0.39	0.51
13	Edible oil	0.75	0.25	0.25	..	..	0.14	0.13	0.17
14	Ghee	0.25	0.75	0.25	0.30	0.30	0.39	0.32	0.42
15	Fish	1.00	2.00	5.00	..	..	..	0.05	0.07
16	Meat	0.50	..	..	..	..	0.55	0.65	0.84
17	Egg	0.50	..	..	..	..	0.11	0.11	0.14
							0.04	0.05	0.07



Statement 17 shows the mean per capita monthly consumption (in rupees) by expenditure level at 1945-46 prices.

## STATEMENT 17

## MIDDLE CLASS FAMILY BUDGET ENQUIRY, 1945-46

Mean per Capita Monthly Consumption (in Rupees) by expenditure level

(All centres combined)

	1	2	3	4	5	6	7	8	9
Expenditure level	1-50	51-100	101-150	151-200	201-250	251-300	301-350	351 and above	
Average size of family . . . . .	2.76	4.70	6.15	7.58	8.46	9.02	9.88	11.62	
Number of families . . . . .	41	216	243	204	134	101	58	89	
Number of persons . . . . .	118	1,016	1,495	1,547	1,133	902	573	1,034	
Food . . . . .	9.59	9.95	11.65	12.54	14.10	14.90	16.40	17.72	
Clothing . . . . .	0.88	1.35	1.86	2.19	2.61	3.23	3.41	3.78	
Fuel and light . . . . .	1.48	1.66	2.09	2.15	2.29	12.49	2.78	2.55	
Housing . . . . .	0.17	0.57	0.76	0.85	0.94	0.86	1.07	0.98	
Miscellaneous . . . . .	2.48	3.20	4.86	6.16	6.51	8.23	9.71	15.10	
TOTAL . . . . .	14.55	16.73	20.71	22.89	26.35	29.77	32.97	40.11	

These statements will make Rowntree's "Primary Poverty" at 30s. 6d. a week for a family of five at 1936 prices appear unattainable princely comfort for the vast majority of our populace in the forties of this century.

Finally, nutrition experts have never ceased to inveigh against the cussedness of the Bengali and the Indian who make no improvements in their diet. It is often overlooked that there is no room to turn, that any effort at improvement of the diet,—which astonishingly enough is the most that can be made of the sum of economic, social, climacteric and ecological conditions—costs money, which is simply not there, and that whenever the income increases the diet at once improves in quality and quantity. Observes the departmental report in its summary of observations:

"An examination (of this table) will indicate that—

(i) Total expenditure per capita increases as salary increases. The increase is appreciable between the lowest income class (0-35) and the next higher class (36-75) indicating a distinct change in the standard of living. This is as could be expected because salary level (0-35) mostly represents the inferior staff. The 'bhadralok' really commences his career from Rs. 35 upward. The increase between the income class (36-75) and the next higher class (76-150), however, is only moderate, which indicates that the standards of living of these two classes are comparable.

(ii) Expenditure on all groups of items such as food, fuel, rent, etc., increases as salary increases except in intoxicants, in which there is a gradual decrease. The expenditure on clothings, tobaccos and utensils increases from (0-35) to

(36-75) class and then decreases. The data are so consistent that there is hardly any room for doubt. It is probably due to the fact that on the average the (36-75) class represent younger men than the (76-150) class and that the younger people spend more on clothing and tobacco. Growing family at this age would also account for more utensils.

"(iii) The increase in the expenditure on food is not much between any two levels. But there is a definite change in the pattern of consumption. Expenditure on cereals decreases with income, that on the others such as pulses, vegetables, fish, meat, milk, etc., increases. The increase in the last three is appreciable.

"(iv) Expenditure on education and miscellaneous items (including medical expenses) increases very appreciably from level to level.

"The above would generally indicate that the lower income groups do not get enough essential food and that their income falls short of their educational and medical needs. Any added income is readily spent on such essential foodstuff as milk, fish, meat, etc., and more readily on education and medicine. The diminishing expenditure on cereals with rise in income would indicate that the higher consumption of cereals at lower levels is not a matter of choice.

"It has been shown that expenditure on food and other items increases with income and that quantities consumed also increase. It may be noted, however, that as in expenditure so also in quantities of cereals consumed there is a decrease with increase of income. It will be seen that with the rise in income cereals are dropped to be replaced by more milk, fish, meat, etc., that is to say, with rise in income the actual diet gradually approaches the ideal balanced diet."

TABLE 1

## ACTUAL NUMBER OF BIRTHS AND DEATHS ANNUALLY REPORTED FOR EACH SEX DURING THE DECADE 1941-50

Year	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
Total 1941-50	4,060,984	2,410,792	2,241,192	4,298,879	2,240,765	2,058,114	-178,000	-182,851	+382,105	926.2	918.5
1950	444,543	230,014	214,529	356,843	185,446	171,397	-15,485	-14,049	+87,700	932.7	924.2
1949	438,163	253,200	234,953	372,559	190,116	182,443	-18,247	-7,673	+115,594	927.9	909.6
1948	453,564	235,710	217,854	385,278	198,401	186,877	-17,556	-11,524	+83,286	924.2	941.9
1947	427,755	222,184	205,571	387,185	201,082	188,103	-16,813	-14,959	+46,590	925.2	925.6
1946	524,865	271,868	252,497	414,687	216,331	198,356	-19,371	-17,975	+108,378	927.7	916.9
1945	457,856	238,518	218,840	448,600	233,312	215,288	-19,678	-18,024	+8,756	917.5	922.7
1944	377,876	198,160	181,218	577,875	300,429	276,946	-14,944	-23,483	-199,999	923.8	921.8
1943	440,014	228,712	211,302	624,266	332,182	292,084	-17,410	-40,098	-184,252	923.9	879.3
1942	506,578	263,103	243,475	347,888	182,313	165,573	-19,628	-16,740	+158,092	925.4	908.2
1941	541,280	280,325	200,955	384,220	201,178	183,047	-19,370	-18,126	+157,060	930.9	909.9

TABLE 1.1

## ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1941

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>541,280</b>	<b>280,325</b>	<b>260,955</b>	<b>384,220</b>	<b>201,178</b>	<b>183,047</b>	<b>-19,370</b>	<b>-18,126</b>	<b>+157,060</b>	<b>930.9</b>	<b>909.9</b>
<b>Burdwan Division</b>	<b>370,528</b>	<b>139,615</b>	<b>130,911</b>	<b>183,947</b>	<b>95,498</b>	<b>88,451</b>	<b>-8,704</b>	<b>-7,045</b>	<b>+86,579</b>	<b>937.7</b>	<b>925.2</b>
Burdwan	50,498	25,925	24,573	86,518	19,148	17,370	-1,352	-1,778	+13,980	947.8	907.1
Birbhum	35,124	18,353	16,771	23,173	12,047	11,126	-1,582	-921	+11,951	962.8	923.5
Bankura	34,980	18,803	18,127	27,042	13,949	13,093	-876	-856	+9,888	964.0	938.6
Midnapur	82,120	42,023	40,097	54,342	27,964	26,388	-1,926	-1,566	+27,773	954.2	944.0
Hooghly	36,450	19,114	17,336	22,216	11,508	10,708	-1,778	-800	+14,234	906.8	930.5
Howrah	29,404	15,397	14,007	20,656	10,890	9,766	-1,390	-1,124	+8,748	909.7	896.3
<b>Presidency Division</b>	<b>270,754</b>	<b>140,710</b>	<b>130,044</b>	<b>200,273</b>	<b>105,677</b>	<b>94,596</b>	<b>-10,866</b>	<b>-11,081</b>	<b>+70,481</b>	<b>924.2</b>	<b>895.1</b>
24-Parganas	89,116	46,151	42,965	58,226	36,245	27,981	-8,186	-2,264	+30,890	931.0	925.1
Calcutta	29,290	16,088	13,267	36,176	19,718	16,463	-2,776	-3,250	+6,886	826.9	835.1
Nadia	27,458	14,202	13,256	21,756	11,408	10,348	-940	-1,060	+5,702	933.4	907.1
Murshidabad	56,768	29,323	27,445	81,431	16,862	14,569	-1,878	-2,293	+25,337	936.0	864.0
Malda	15,068	7,824	7,244	10,166	5,451	4,705	-580	-756	+4,902	925.9	861.6
West Dinajpur	15,816	8,010	7,806	11,362	5,990	5,372	-204	-618	+4,454	974.5	896.8
Jalpaiguri	25,030	13,267	12,063	20,439	10,422	10,017	-604	-405	+5,491	954.5	961.1
Darjeeling	11,808	5,900	5,408	10,717	5,576	5,141	-492	-435	+591	916.6	922.0
Cooch Behar											

Not available

**TABLE 1.2**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1942**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>506,578</b>	<b>263,108</b>	<b>243,478</b>	<b>347,886</b>	<b>182,318</b>	<b>165,578</b>	<b>-19,528</b>	<b>-16,740</b>	<b>+158,693</b>	<b>925.4</b>	<b>908.8</b>
<b>Burdwan Division</b>	<b>259,897</b>	<b>134,039</b>	<b>125,858</b>	<b>171,343</b>	<b>88,206</b>	<b>83,137</b>	<b>-8,181</b>	<b>-5,069</b>	<b>+88,554</b>	<b>939.0</b>	<b>942.6</b>
Burdwan	52,345	27,041	25,304	84,801	17,861	16,440	-1,737	-1,421	+18,044	935.8	920.4
Birbhum	37,098	18,678	18,426	22,840	11,574	11,266	-246	-308	+14,258	986.8	978.4
Bankura	38,816	19,790	19,026	25,381	12,937	12,444	-764	-498	+13,435	961.4	961.0
Midnapur	71,766	36,901	34,886	60,685	25,766	24,869	-2,016	-897	+31,151	945.4	956.2
Hoochly	36,324	18,250	17,074	21,359	11,069	10,080	-2,176	-979	+15,155	887.0	911.6
Howrah	23,528	12,385	11,143	17,027	8,999	8,028	-1,242	-971	+6,501	899.7	892.1
<b>Presidency Division</b>	<b>246,681</b>	<b>129,064</b>	<b>117,617</b>	<b>176,543</b>	<b>94,107</b>	<b>82,436</b>	<b>-11,447</b>	<b>-11,671</b>	<b>+70,138</b>	<b>911.4</b>	<b>876.0</b>
24-Parganas	81,134	42,569	38,565	49,898	26,444	23,454	-4,004	-2,990	+31,236	905.9	886.9
Calcutta	19,827	11,859	8,478	24,594	14,473	10,121	-2,881	-4,852	+4,757	746.4	690.2
Nadia	30,106	15,666	14,440	21,882	11,344	10,538	-1,226	-806	+8,224	921.7	928.9
Murshidabad	55,118	28,370	26,748	33,333	17,413	15,920	-1,624	-1,493	+21,733	942.8	914.2
Malda	12,119	6,310	5,809	8,308	3,359	2,949	-501	-410	+5,611	920.6	877.9
West Dinajpur	18,822	7,008	6,819	10,353	5,387	4,966	-421	-351	+3,499	973.7	921.6
Jalpaiguri	23,789	12,254	11,485	19,902	10,211	9,691	-789	-520	+3,837	937.2	949.1
Darjeeling	10,608	5,533	5,275	10,273	5,476	4,797	-258	-679	+685	953.4	876.0
Cooch Behar							Not available				

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**TABLE 1.3**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1943**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>2440,014</b>	<b>222,712</b>	<b>211,302</b>	<b>624,266</b>	<b>332,182</b>	<b>292,084</b>	<b>-17,410</b>	<b>-40,098</b>	<b>-184,252</b>	<b>923.9</b>	<b>879.3</b>
<b>Burdwan Division</b>	<b>242,106</b>	<b>125,323</b>	<b>116,783</b>	<b>315,035</b>	<b>168,021</b>	<b>147,014</b>	<b>-8,540</b>	<b>-21,007</b>	<b>-92,929</b>	<b>931.0</b>	<b>876.0</b>
Burdwan	42,328	21,837	20,491	47,467	24,842	22,625	-1,346	-2,217	+5,139	934.4	910.8
Birbhum	33,221	16,989	16,232	40,489	20,612	19,877	-757	-735	+7,268	955.4	904.2
Bankura	33,808	17,388	16,429	40,170	20,883	19,287	-968	-1,596	+6,362	944.2	923.6
Midnapur	74,319	38,500	35,819	124,736	67,247	67,422	-2,641	-9,755	+50,420	930.4	854.9
Hoochly	32,840	17,166	15,674	27,496	14,810	12,686	-1,492	-2,124	+5,344	913.1	856.6
Howrah	25,590	13,443	12,147	34,674	19,627	15,047	-1,296	-4,580	+9,084	903.6	706.6
<b>Presidency Division</b>	<b>197,908</b>	<b>103,389</b>	<b>94,519</b>	<b>509,231</b>	<b>164,161</b>	<b>145,070</b>	<b>-8,870</b>	<b>-19,091</b>	<b>-111,323</b>	<b>914.2</b>	<b>833.7</b>
24-Parganas	63,901	33,854	30,047	91,213	51,379	39,834	-3,907	-11,545	+27,312	847.6	775.2
Calcutta	20,658	11,394	9,264	52,268	27,709	24,559	-2,130	-3,150	+31,610	861.2	806.2
Nadia	23,041	11,946	11,095	38,840	19,706	19,134	-551	-672	+16,799	928.8	971.0
Murshidabad	36,741	18,956	17,785	65,073	33,131	31,942	-1,171	-1,189	+23,332	938.2	964.1
Malda	9,048	4,775	4,273	11,317	5,991	5,426	-562	-495	+2,269	894.9	921.1
West Dinajpur	14,989	7,571	7,418	12,458	6,542	5,916	-626	-828	+2,531	979.8	904.2
Jalpaiguri	19,842	9,966	9,856	29,804	13,933	12,871	-1,062	-1,062	+6,962	987.0	923.8
Darjeeling	9,608	4,907	4,781	11,258	5,870	5,388	-482	-482	+1,570	974.2	917.9
Cooch Behar							Not available				

**TABLE 1.4**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1944**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>877,378</b>	<b>196,160</b>	<b>181,216</b>	<b>577,375</b>	<b>300,429</b>	<b>276,946</b>	<b>-14,944</b>	<b>-23,483</b>	<b>-199,999</b>	<b>923.8</b>	<b>921.8</b>
<b>Burdwan Division</b>	<b>203,427</b>	<b>105,394</b>	<b>98,033</b>	<b>289,680</b>	<b>137,724</b>	<b>131,896</b>	<b>-7,361</b>	<b>-5,868</b>	<b>-66,233</b>	<b>930.2</b>	<b>957.4</b>
Burdwan	85,357	18,821	17,086	48,651	25,046	23,005	-1,285	-1,441	-13,294	929.9	942.5
Birbhum	21,691	11,183	10,508	41,200	20,244	20,956	-675	+712	-19,509	939.6	1,036.2
Bankura	24,160	12,568	11,604	31,484	15,885	15,599	-286	-236	-7,324	924.2	982.0
Midnapur	65,792	34,068	31,736	79,124	40,759	39,365	-824	-2,394	-13,332	931.8	941.3
Hooghly	14,939	14,939	13,671	29,385	16,180	14,225	-1,965	-935	-775	915.1	938.3
Howrah	27,617	14,337	13,480	39,816	20,070	19,146	-857	-1,524	-11,999	940.2	926.8
<b>Presidency Division</b>	<b>173,949</b>	<b>90,766</b>	<b>83,183</b>	<b>307,715</b>	<b>162,965</b>	<b>145,050</b>	<b>-7,583</b>	<b>-17,615</b>	<b>-133,766</b>	<b>918.5</b>	<b>891.8</b>
24-Parganas	51,843	27,152	24,491	84,418	45,236	39,182	-2,661	-6,054	-32,775	902.0	866.2
Calcutta	21,931	11,689	10,242	52,845	29,602	23,243	-1,447	-6,359	-30,914	878.2	785.2
Nadia	10,740	5,733	5,007	30,768	15,851	14,917	-934	-726	-14,028	918.9	941.1
Murshidabad	29,123	15,051	14,072	56,916	28,828	28,090	-738	-736	-27,793	935.0	974.5
Malda	16,102	8,449	7,713	25,851	13,334	12,017	-1,317	-1,817	-9,189	912.9	901.2
West Dinajpur	14,591	7,598	7,053	18,574	9,656	8,918	-738	-738	-3,983	935.7	923.6
Jalpaiguri	16,118	8,276	7,840	27,815	14,147	13,168	-979	-436	-11,189	947.8	930.8
Darjeeling	7,043	3,878	3,765	11,528	6,013	5,515	-498	-498	-3,885	970.9	917.2
Cooch Behar											

Not available

**TABLE 1.5**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1945**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>457,356</b>	<b>238,516</b>	<b>218,840</b>	<b>448,600</b>	<b>233,312</b>	<b>215,288</b>	<b>-19,676</b>	<b>-18,024</b>	<b>+ 8,756</b>	<b>917.5</b>	<b>922.7</b>
<b>Burdwan Division</b>	<b>235,307</b>	<b>122,384</b>	<b>112,923</b>	<b>304,580</b>	<b>104,165</b>	<b>100,425</b>	<b>-9,461</b>	<b>-3,740</b>	<b>+30,717</b>	<b>922.7</b>	<b>964.1</b>
Burdwan	88,797	20,176	18,621	86,885	18,678	17,712	-1,555	-961	+ 2,412	923.9	950.4
Birbhum	24,626	12,664	11,962	29,947	14,766	15,181	-702	+ 415	- 5,321	944.0	1,028.1
Bankura	31,163	16,084	15,079	25,913	13,540	12,873	-1,005	-1,167	+ 5,250	937.5	918.8
Midnapur	85,249	44,315	40,984	57,561	29,078	28,483	-583	-595	+27,688	923.7	979.5
Hooghly	28,892	15,155	13,737	25,971	13,096	12,875	-221	-221	+ 2,921	906.4	933.1
Howrah	26,580	13,990	12,590	28,813	15,012	13,801	-1,400	-1,211	- 2,233	899.9	919.8
<b>Presidency Division</b>	<b>222,049</b>	<b>116,132</b>	<b>105,917</b>	<b>344,010</b>	<b>129,147</b>	<b>114,863</b>	<b>-19,215</b>	<b>-14,284</b>	<b>-21,961</b>	<b>913.0</b>	<b>889.4</b>
24-Parganas	63,918	33,731	30,187	57,778	30,300	27,478	-3,544	-2,822	+ 6,140	894.9	906.9
Calcutta	27,728	13,616	13,112	41,878	23,824	18,054	-1,504	-5,770	-14,150	897.1	757.8
Nadia	23,834	12,570	11,264	24,751	12,860	11,861	-1,806	-969	- 917	896.1	824.7
Murshidabad	44,426	22,999	21,427	48,617	24,930	23,687	-1,572	-1,243	+ 4,191	931.7	950.1
Malda	20,228	10,620	9,608	19,536	10,468	9,068	-1,012	-1,400	+ 692	904.7	968.8
West Dinajpur	13,043	6,809	6,234	16,305	8,578	7,727	-851	-851	- 3,262	915.6	900.8
Jalpaiguri	18,575	9,485	9,090	24,207	12,515	11,692	-823	-823	- 5,632	958.4	934.2
Darjeeling	10,297	5,302	4,995	10,988	5,672	5,266	-407	-406	- 641	942.1	928.4
Cooch Behar											

Not available

**TABLE 1.6**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1946**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>524,365</b>	<b>271,858</b>	<b>252,497</b>	<b>414,087</b>	<b>216,331</b>	<b>198,356</b>	<b>-19,371</b>	<b>-17,975</b>	<b>+109,078</b>	<b>928.7</b>	<b>916.9</b>
<b>Burdwan Division</b>	<b>269,805</b>	<b>139,354</b>	<b>130,451</b>	<b>190,501</b>	<b>98,489</b>	<b>92,012</b>	<b>-8,993</b>	<b>-9,477</b>	<b>+79,304</b>	<b>936.1</b>	<b>934.2</b>
Burdwan	48,843	25,446	23,397	35,519	18,541	16,988	-2,049	-1,643	+13,324	919.5	911.6
Birbhum	30,406	15,486	14,940	31,761	15,779	15,982	+526	+303	-1,355	966.0	1,012.9
Bankura	26,430	14,841	11,589	23,234	12,357	10,877	-1,252	-1,480	+13,196	938.9	880.2
Midnapur	90,265	46,332	43,933	63,279	27,216	26,069	-2,399	-1,153	+36,946	948.2	957.6
Howrah	35,086	18,180	16,906	22,199	11,645	10,554	-1,274	-1,091	+12,887	929.9	906.3
Howrah	26,775	14,089	12,686	24,509	12,911	11,598	-1,403	-1,313	+2,266	900.4	898.3
<b>Presidency Division</b>	<b>254,560</b>	<b>132,514</b>	<b>122,046</b>	<b>224,186</b>	<b>117,842</b>	<b>106,344</b>	<b>-10,468</b>	<b>-11,498</b>	<b>+80,374</b>	<b>921.9</b>	<b>903.4</b>
24-Parganas	74,574	39,300	35,274	48,840	25,649	22,691	-4,026	-2,958	+26,234	897.6	884.7
Calcutta	83,411	17,456	15,957	36,137	20,249	15,288	-1,497	-4,381	+2,726	914.2	784.6
Nadia	25,838	13,170	12,668	24,831	12,619	12,212	-602	-407	+1,007	961.9	967.7
Murshidabad	47,584	24,512	23,022	46,791	23,626	23,165	-1,490	-461	+743	939.2	989.5
Malda	19,924	10,529	9,395	19,256	10,117	9,139	-1,134	-978	+668	902.3	903.3
West Dinajpur	17,698	9,122	8,576	16,376	8,715	7,661	-546	-1,054	+1,322	940.1	979.1
Jaipur	25,101	13,035	12,066	23,420	12,243	11,177	-969	-1,096	+1,681	925.7	912.9
Darjeeling	10,480	5,392	5,088	9,035	4,624	4,411	-304	-213	+1,445	943.6	953.9
Cooch Behar							Not available				

**TABLE 1.7**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1947**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>427,755</b>	<b>222,184</b>	<b>205,571</b>	<b>387,166</b>	<b>201,062</b>	<b>186,103</b>	<b>-16,613</b>	<b>-14,959</b>	<b>+40,590</b>	<b>925.2</b>	<b>923.6</b>
<b>Burdwan Division</b>	<b>216,054</b>	<b>111,839</b>	<b>104,215</b>	<b>193,910</b>	<b>99,102</b>	<b>94,808</b>	<b>-7,624</b>	<b>-4,294</b>	<b>+22,144</b>	<b>931.8</b>	<b>955.7</b>
Burdwan	40,816	21,151	19,665	35,614	18,480	17,134	-1,486	-1,346	+5,202	929.7	927.2
Birbhum	22,257	11,364	10,893	26,903	13,612	13,291	-471	-321	+4,648	958.6	976.4
Bankura	29,471	15,071	14,400	26,542	13,495	13,047	-671	-448	+2,929	958.5	968.2
Midnapur	71,924	37,264	34,640	57,634	28,969	28,665	-2,644	-304	+14,290	929.1	989.5
Howrah	30,039	15,794	14,248	22,904	11,960	10,944	-1,549	-1,016	+7,135	901.9	915.1
Howrah	21,547	11,175	10,372	24,313	12,586	11,727	-803	-859	+2,766	928.1	931.7
<b>Presidency Division</b>	<b>211,701</b>	<b>110,345</b>	<b>101,356</b>	<b>193,256</b>	<b>101,960</b>	<b>91,295</b>	<b>-8,969</b>	<b>-10,669</b>	<b>+18,446</b>	<b>918.5</b>	<b>895.4</b>
24-Parganas	59,133	31,309	27,824	45,176	23,736	21,440	-3,485	-2,296	+13,957	889.7	903.3
Calcutta	33,204	17,204	16,000	41,135	22,352	18,777	-1,204	-3,581	+7,481	930.0	839.9
Nadia	21,194	11,077	10,117	19,834	10,113	9,721	-960	-892	+1,360	913.2	961.2
Murshidabad	34,980	18,188	16,792	33,874	17,699	16,175	-1,396	-1,624	+1,106	923.2	913.9
Malda	13,522	7,114	6,414	11,293	6,091	5,112	-700	-979	+2,325	901.6	839.3
West Dinajpur	13,816	7,115	6,701	14,762	7,771	6,991	-414	-780	+946	941.5	899.6
Jaipur	24,385	12,477	11,908	18,740	9,776	8,964	-589	-812	+5,645	954.4	916.9
Darjeeling	11,461	5,861	5,600	8,581	4,416	4,115	-261	-301	+2,930	955.6	931.6
Cooch Behar							Not available				

TABLE 1.8

ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1948

Locality	Number of births			Number of deaths			Excess(+) or deficiency(-) of female births over male births	Excess(+) or deficiency(-) of female deaths over male deaths	Excess(+) or deficiency(-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
WEST BENGAL STATE . . . . .	453,564	256,710	217,854	385,278	198,401	186,877	-17,856	-11,524	+68,236	924.8	941.9
Burdwan Division . . . . .	214,555	111,140	103,415	188,424	95,193	93,231	-7,725	-1,962	+26,131	930.5	979.4
Burdwan . . . . .	37,171	19,808	17,868	34,844	17,588	17,806	-1,435	-232	+2,327	925.7	986.8
Birbhum . . . . .	26,247	13,802	12,945	22,997	11,531	11,466	-867	-65	+3,250	973.2	994.4
Bankura . . . . .	27,480	14,202	13,278	24,529	12,551	11,978	-924	-573	+2,951	934.9	954.3
Midnapur . . . . .	76,521	39,593	36,928	59,273	29,625	29,648	-2,665	+23	+17,248	932.7	1,000.8
Hooghly . . . . .	26,564	13,937	12,627	22,284	11,323	10,961	-1,310	-362	+4,280	906.0	968.0
Howrah . . . . .	20,572	10,803	9,769	24,497	12,625	11,872	-1,034	-753	-3,925	904.3	940.4
Presidency Division . . . . .	239,009	122,570	114,439	196,854	103,208	93,646	-10,131	-9,562	+42,655	918.7	907.4
24-Parganas . . . . .	61,868	32,654	29,214	49,105	25,625	23,480	-3,440	-2,145	+12,763	894.7	916.3
Calcutta . . . . .	40,842	21,222	19,120	48,178	25,767	22,411	-2,102	-3,356	-7,836	901.0	869.8
Nadia . . . . .	21,795	11,397	10,398	19,032	9,615	9,417	-999	-198	+2,763	912.3	979.4
Murshidabad . . . . .	42,026	21,644	20,382	28,546	14,704	13,842	-1,262	-862	+13,480	941.7	941.4
Malda . . . . .	20,379	10,723	9,656	12,181	6,661	5,520	-1,067	-1,141	+8,198	900.5	823.7
West Dinajpur . . . . .	14,384	7,434	6,950	12,863	6,966	5,897	-484	-1,089	+1,501	934.9	844.1
Jalpaiguri . . . . .	26,897	13,720	13,177	18,167	9,381	8,786	-543	-595	+8,730	960.4	936.9
Darjeeling . . . . .	11,318	5,776	5,542	8,762	4,469	4,293	-284	-176	+2,556	959.5	960.6
Cooch Behar . . . . .											

Not available

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**TABLE 1.9**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1949**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>468,153</b>	<b>253,200</b>	<b>234,953</b>	<b>372,559</b>	<b>190,116</b>	<b>182,443</b>	<b>-18,247</b>	<b>-7,073</b>	<b>+115,504</b>	<b>927.9</b>	<b>959.6</b>
<b>Burdwan Division</b>	<b>224,505</b>	<b>116,949</b>	<b>107,556</b>	<b>183,028</b>	<b>92,111</b>	<b>90,915</b>	<b>-8,793</b>	<b>-1,196</b>	<b>+ 61,479</b>	<b>924.6</b>	<b>967.0</b>
Burdwan	40,116	20,761	19,354	32,520	16,453	16,067	-1,407	- 386	+ 7,595	932.2	978.5
Birbhum	26,588	13,672	12,916	24,680	12,244	12,436	+ 756	+ 192	+ 1,908	944.7	1,015.7
Bankura	29,945	15,597	14,348	29,156	11,779	11,877	- 1,249	- 402	+ 6,789	919.9	965.9
Midnapur	78,366	40,573	37,793	69,949	29,722	30,227	- 2,780	+ 505	+ 18,417	931.5	1,017.0
Hoochly	27,804	14,570	13,234	20,645	10,560	10,085	- 1,336	- 475	+ 7,159	904.3	955.0
Howrah	21,687	11,476	10,211	22,076	11,353	10,723	- 1,265	- 630	- 389	829.8	944.2
<b>Presidency Division</b>	<b>263,648</b>	<b>136,551</b>	<b>127,097</b>	<b>189,533</b>	<b>98,005</b>	<b>91,528</b>	<b>- 9,054</b>	<b>-6,477</b>	<b>+ 74,115</b>	<b>930.8</b>	<b>933.9</b>
24-Paraganas	64,172	33,564	30,608	47,453	24,703	22,750	- 2,956	-1,953	+ 16,719	911.9	920.9
Calcutta	57,515	29,707	27,808	41,962	22,523	19,339	- 1,899	-3,184	+ 15,653	936.1	864.6
Nadia	20,790	10,787	10,003	19,147	9,493	9,654	- 784	+ 161	+ 1,643	927.3	1,017.0
Murshidabad	43,680	22,665	21,015	28,566	14,346	14,220	- 1,650	- 126	+ 15,114	927.2	901.3
Malda	21,097	11,132	9,965	12,664	6,648	6,016	- 1,167	- 632	+ 8,433	895.2	904.9
West Dinajpur	17,708	9,085	8,623	13,374	6,906	6,468	- 462	- 438	+ 4,334	949.1	873.8
Jalpaiguri	27,093	13,725	13,368	18,201	9,171	9,030	- 357	- 141	+ 8,892	974.0	984.6
Darjeeling	11,593	5,886	5,707	8,266	4,215	4,051	- 179	- 164	+ 3,327	969.6	901.1
Cooch Behar											

Not available

**TABLE 1.10**

**ACTUAL NUMBER OF BIRTHS AND DEATHS REPORTED FOR EACH SEX IN THE STATE, ADMINISTRATIVE DIVISION AND DISTRICT DURING 1950**

Locality	Number of births			Number of deaths			Excess (+) or deficiency (-) of female births over male births	Excess (+) or deficiency (-) of female deaths over male deaths	Excess (+) or deficiency (-) of births over deaths, both sexes	Number of female births per 1,000 male births	Number of female deaths per 1,000 male deaths
	Both Sexes	Male	Female	Both Sexes	Male	Female					
1	2	3	4	5	6	7	8	9	10	11	12
<b>WEST BENGAL STATE</b>	<b>444,543</b>	<b>230,614</b>	<b>214,529</b>	<b>356,843</b>	<b>185,446</b>	<b>171,397</b>	<b>-15,485</b>	<b>-14,049</b>	<b>+ 87,700</b>	<b>932.7</b>	<b>924.2</b>
<b>Burdwan Division</b>	<b>203,626</b>	<b>106,086</b>	<b>97,540</b>	<b>168,461</b>	<b>86,463</b>	<b>81,998</b>	<b>- 8,546</b>	<b>- 4,465</b>	<b>+ 85,165</b>	<b>919.4</b>	<b>943.4</b>
Burdwan	35,479	18,377	17,102	30,395	15,790	14,605	- 1,275	- 1,185	+ 5,084	930.6	925.0
Birbhum	20,431	10,499	9,932	23,406	11,869	11,537	- 867	- 332	+ 2,976	946.0	972.0
Bankura	25,421	13,167	12,234	21,484	11,253	10,281	- 953	- 1,022	+ 3,937	927.7	909.2
Midnapur	74,704	38,733	35,971	53,340	27,154	26,186	- 2,762	- 968	+ 21,364	928.7	964.4
Hoochly	26,254	13,664	12,390	18,947	9,998	8,949	- 1,474	- 1,049	+ 7,307	893.7	895.1
Howrah	21,337	11,426	9,911	20,889	10,399	10,490	+ 1,515	+ 91	+ 448	867.4	1,008.8
<b>Presidency Division</b>	<b>240,917</b>	<b>123,928</b>	<b>116,989</b>	<b>188,382</b>	<b>98,983</b>	<b>89,399</b>	<b>- 9,939</b>	<b>- 9,584</b>	<b>+ 52,535</b>	<b>944.0</b>	<b>903.2</b>
24-Paraganas	58,669	31,161	27,505	40,483	21,433	19,050	-3,653	-2,913	+ 18,166	882.8	884.8
Calcutta	60,802	31,242	29,560	52,196	27,350	24,846	-1,622	-2,504	+ 8,606	946.2	904.4
Nadia	15,595	7,206	6,389	16,807	8,641	8,166	+ 1,183	- 475	+ 1,212	911.3	945.0
Murshidabad	39,205	19,261	19,944	25,587	13,406	12,181	+ 683	-1,225	+ 13,618	1,085.5	904.6
Malda	18,020	9,898	8,322	12,455	6,814	5,641	-1,376	-1,173	+ 5,565	858.1	827.9
West Dinajpur	13,122	6,856	6,266	13,718	7,246	6,472	- 550	- 774	- 506	913.9	893.2
Jalpaiguri	24,275	12,695	11,580	18,394	9,492	8,902	-1,115	- 590	+ 5,881	912.2	937.5
Darjeeling	11,229	5,809	5,420	8,742	4,601	4,141	- 389	- 460	+ 2,487	933.0	900.0
Cooch Behar											

Not available

## TABLE 2

### TOTAL BIRTHS 1941-50

District	1941-1950		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Burdwan .	218,338	203,411	25,925	24,573	27,041	25,304	21,837	20,491	18,321	17,036	20,176	18,621	25,446	23,397	21,151	19,665	19,303	17,868	20,761	19,354	18,377	17,102
Birbhum .	142,164	135,525	18,353	16,771	18,672	18,426	16,989	16,232	11,183	10,508	12,664	11,962	15,466	14,940	11,364	10,893	13,302	12,945	13,672	12,916	10,499	9,932
Bankura .	162,510	153,105	18,803	18,127	19,790	19,026	17,388	16,420	12,556	11,604	16,084	15,079	19,841	18,589	15,071	14,400	14,202	13,278	15,597	14,548	13,187	12,234
Midnapur .	398,312	372,734	42,023	40,097	36,901	34,885	38,500	35,819	34,058	31,734	44,315	40,934	46,332	43,933	37,284	34,640	39,593	36,928	40,573	37,793	38,733	35,071
Hooghly .	161,969	146,894	19,114	17,336	19,250	17,074	17,166	15,674	14,939	13,671	15,155	13,737	18,180	16,906	15,794	14,245	13,937	12,627	14,570	13,234	13,864	12,390
Howrah .	128,621	116,316	15,397	14,007	12,385	11,143	13,443	12,147	14,337	13,480	13,990	12,590	14,089	12,686	11,175	10,372	10,803	9,769	11,476	10,211	11,426	9,911
24 Parganas	351,445	316,683	46,151	42,965	42,569	38,565	33,854	30,047	27,152	24,491	33,731	30,187	39,300	35,274	31,309	27,824	32,654	29,214	33,564	30,608	31,161	27,508
Calcutta .	181,920	162,798	16,033	13,257	11,359	8,478	11,394	9,264	11,689	10,242	14,616	13,112	17,454	16,957	17,204	16,000	21,222	19,120	29,707	27,808	31,242	29,560
Nadia .	116,754	109,637	14,202	13,256	15,666	14,440	11,946	11,095	8,733	18,007	12,570	11,264	13,170	12,668	11,077	10,117	11,397	10,398	10,787	10,003	7,206	8,389
Murshidabad	220,969	208,830	29,823	27,445	28,370	26,746	18,956	17,785	15,051	14,072	22,999	21,427	24,512	23,022	18,188	16,792	21,644	20,382	22,665	21,015	19,261	19,944
Malda .	87,174	78,399	7,324	7,244	6,310	5,809	4,775	4,273	3,449	7,713	10,620	9,608	10,529	9,395	7,114	6,414	10,723	9,656	11,182	9,965	9,698	8,322
West Dinajpur	76,543	72,446	8,010	7,806	7,003	6,819	7,571	7,418	7,538	7,053	6,809	6,234	9,122	8,576	7,115	6,701	7,434	6,950	9,085	8,623	6,856	6,266
Jalpaiguri	118,920	113,033	13,267	12,663	12,254	11,485	9,986	9,856	8,276	7,840	9,485	9,090	13,035	12,066	2,477	11,908	13,720	13,177	13,725	13,368	12,695	11,580
Darjeeling .	54,244	51,581	5,900	5,408	5,533	5,275	4,907	4,781	3,878	3,765	5,302	4,995	5,392	5,088	5,861	5,600	5,776	5,542	5,888	5,707	5,809	5,420
Cooch Behar																						
											Not available											
<b>TOTAL</b>	<b>2,410,792</b>	<b>2,241,192</b>	<b>280,325</b>	<b>260,955</b>	<b>268,108</b>	<b>243,475</b>	<b>228,712</b>	<b>211,302</b>	<b>196,160</b>	<b>181,216</b>	<b>238,516</b>	<b>218,840</b>	<b>271,868</b>	<b>252,497</b>	<b>222,184</b>	<b>205,571</b>	<b>235,710</b>	<b>217,854</b>	<b>253,200</b>	<b>234,953</b>	<b>230,014</b>	<b>214,529</b>

## TABLE 3

### BIRTH RATES (NUMBER OF BIRTHS PER 1,000 OF TOTAL POPULATION)

A—Calculated on the population at the census of 1941

District	1941-1950		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
<b>Average</b>																							
Burdwan .	11.5	10.8	13.7	13.0	14.3	13.4	11.5	10.8	9.7	9.0	10.7	9.8	13.5	12.4	11.2	10.4	10.2	9.5	11.0	10.2	9.7	9.0	
Birbhum .	13.6	12.9	17.5	16.8	17.8	17.6	16.2	15.6	12.7	10.7	10.0	12.1	11.4	14.8	14.8	10.8	10.4	12.7	12.3	13.0	12.3	10.0	9.5
Bankura .	12.6	11.9	14.6	14.0	15.3	14.7	13.5	12.7	9.7	9.0	12.6	11.7	15.4	14.4	11.7	11.2	11.0	10.8	12.1	11.1	10.2	9.5	
Midnapur .	12.5	11.7	13.2	13.6	11.6	10.9	12.1	11.2	10.7	9.9	9.9	13.9	12.8	14.5	13.8	11.7	10.8	12.4	11.6	12.7	11.8	12.1	11.8
Hooghly .	11.8	10.7	13.0	13.6	14.0	12.4	12.5	11.4	10.8	9.9	11.0	10.0	13.2	12.3	11.5	10.8	10.1	9.2	10.6	9.6	10.1	9.0	
Howrah .	9.6	7.8	10.3	9.4	8.3	7.5	9.0	8.2	9.6	9.0	9.4	8.4	9.5	8.5	7.5	7.0	7.2	6.6	7.7	6.9	7.7	6.7	
24 Parganas	8.6	8.6	12.6	11.7	11.6	10.5	9.2	8.2	7.4	6.7	6.7	8.2	10.7	9.6	8.2	7.6	8.9	8.0	9.1	8.4	8.4	8.5	
Calcutta .	8.6	7.7	7.6	6.8	5.4	4.0	4.4	5.5	5.5	4.9	6.9	6.2	8.3	7.6	8.2	7.6	7.6	10.1	9.1	13.2	14.8	14.0	
Nadia .	13.9	13.0	16.9	15.8	18.6	17.2	14.2	13.2	10.4	9.5	15.0	13.4	15.7	15.1	13.2	12.0	13.6	12.4	12.8	11.9	11.0	10.0	
Murshidabad	13.5	12.7	17.9	16.7	17.3	16.3	11.6	10.3	9.2	8.6	14.0	13.1	15.0	14.0	11.1	10.2	13.2	12.4	13.8	12.8	11.7	12.2	
Malda .	10.3	9.8	9.8	8.6	7.5	6.9	5.7	5.1	10.0	9.1	12.6	11.4	12.5	11.1	8.4	7.6	11.4	12.7	13.2	11.8	11.5	9.9	
West Dinajpur	13.1	12.4	13.7	13.4	12.0	11.7	13.0	12.7	12.9	12.1	11.7	10.7	15.6	14.7	12.2	11.5	12.7	11.9	15.6	14.8	11.8	10.7	
Jalpaiguri	14.0	13.4	15.7	15.0	14.5	13.6	11.8	11.6	9.8	9.8	11.2	10.7	15.4	14.3	14.7	14.1	16.2	15.6	16.2	15.8	15.0	13.7	
Darjeeling .	14.4	13.7	15.7	14.4	14.7	14.0	13.0	12.7	10.3	10.0	14.1	13.8	14.3	13.5	15.6	14.9	15.8	14.7	15.6	15.2	15.4	14.4	
Cooch Behar																							
											Not available												
<b>TOTAL</b>	<b>10.1</b>	<b>10.6</b>	<b>13.2</b>	<b>12.3</b>	<b>12.4</b>	<b>11.4</b>	<b>10.7</b>	<b>9.9</b>	<b>9.2</b>	<b>8.5</b>	<b>11.2</b>	<b>10.3</b>	<b>12.8</b>	<b>11.9</b>	<b>10.4</b>	<b>9.7</b>	<b>11.1</b>	<b>10.2</b>	<b>11.9</b>	<b>11.0</b>	<b>10.8</b>	<b>10.1</b>	



**TABLE 4**

**BIRTH RATES (NUMBER OF BIRTHS PER 1,000 OF TOTAL POPULATION)**

**B—Calculated on the estimated population on the 30th June of each year computed on the assumption that the population changed at a uniform rate from one census to the next**

District	1941-1950		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Average																						
Burdwan . . .	11.4	10.6	13.7	13.0	14.1	13.2	11.3	10.6	9.6	8.9	10.6	9.8	13.3	12.2	11.0	10.2	10.0	9.3	10.8	10.0	9.5	8.6
Birbhum . . .	13.3	13.9	17.4	16.8	17.5	17.3	15.8	15.0	10.6	10.0	12.1	11.5	14.8	14.3	11.0	10.5	12.8	12.5	13.1	12.4	10.1	9.6
Bankura . . .	13.4	11.7	14.5	14.0	15.2	14.6	13.2	12.5	9.7	8.9	12.4	11.6	15.1	14.2	11.4	10.9	10.7	10.0	11.7	10.8	9.9	9.2
Midnapur . . .	12.3	11.5	12.5	12.5	11.4	10.8	11.9	11.1	10.7	10.0	13.9	12.9	14.4	13.6	11.5	10.7	12.1	11.3	12.4	11.5	11.8	10.9
Hooghly . . .	11.4	10.4	13.8	12.5	13.8	12.2	12.2	11.1	10.6	9.7	10.8	9.8	12.8	11.9	11.0	10.0	9.7	8.8	10.1	9.2	9.6	8.6
Howrah . . .	8.7	7.8	10.3	9.4	8.3	7.4	8.9	8.1	9.7	9.1	9.5	8.5	9.5	8.6	7.5	7.0	7.3	6.6	7.8	6.9	7.8	6.7
24-Parganas . . .	9.5	8.5	12.5	11.7	11.4	10.3	9.0	8.0	7.4	6.6	9.2	8.2	10.6	9.5	8.4	7.5	6.8	7.8	9.0	8.2	8.3	7.3
Calcutta . . .	8.9	8.0	7.6	6.3	5.4	4.0	5.0	4.4	5.7	5.0	7.2	6.4	8.6	7.9	8.5	7.9	10.6	9.6	14.8	13.9	15.4	14.6
Nadia . . .	13.4	12.6	16.9	15.7	17.6	16.2	13.3	12.4	10.1	9.2	14.6	13.1	15.2	14.7	12.8	11.7	13.3	12.0	12.4	11.5	8.3	9.7
Murshidabad . . .	13.5	11.4	17.8	16.7	17.0	16.0	11.2	10.5	9.8	8.6	14.2	13.2	15.1	14.2	11.2	10.3	13.3	12.5	13.3	12.3	11.6	12.0
Malda . . .	10.1	9.0	9.3	8.6	7.3	6.7	5.5	4.9	9.8	8.9	12.3	11.2	12.2	10.9	8.2	7.4	12.3	11.1	12.7	11.3	11.0	9.4
West Dinajpur . . .	13.1	12.4	13.7	13.3	12.0	11.7	12.9	12.6	12.8	12.0	11.7	10.7	15.7	14.7	12.2	11.5	12.3	11.9	15.6	14.7	11.7	10.7
Jalpalguri . . .	15.5	14.7	15.7	15.0	16.0	14.9	13.0	12.3	10.9	10.3	12.7	12.2	17.5	16.2	16.6	15.6	18.1	17.4	17.9	17.4	16.4	15.0
Darjeeling . . .	14.4	13.7	15.7	14.4	14.7	14.0	13.0	12.7	10.4	10.1	14.3	13.5	14.5	13.7	15.7	15.0	15.3	14.7	15.5	15.0	15.2	14.2
Cooch Behar . . .	Not available																					
TOTAL . . .	12.3	11.7	13.2	12.3	12.3	11.4	10.6	9.8	9.3	8.6	11.3	10.4	12.3	11.9	10.5	9.7	11.1	10.0	11.3	11.0	10.7	10.0

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**TABLE 5**

**FEMALE BIRTHS REPORTED PER 1,000 MALE BIRTHS REPORTED ANNUALLY IN EACH DISTRICT 1941-1950**

Year	West Bengal	Burdwan	Birbhum	Bankura	Midnapur	Hooghly	Howrah	24-Parganas	Calcutta	Nadia	Murshidabad	Malda	West Dinajpur	Jalpalguri	Darjeeling	Cooch Behar
Average for 1941-50 . . .	926.3	931.6	933.3	943.1	935.3	906.9	905.0	901.1	894.9	939.0	944.2	899.3	946.5	950.5	950.9	
1941 . . .	930.9	947.8	962.3	964.0	954.2	906.8	909.7	931.0	826.9	933.4	936.0	925.9	974.5	954.5	916.6	
1942 . . .	925.4	935.3	936.8	961.4	945.4	887.0	899.7	905.9	746.4	921.7	942.8	920.6	973.7	937.2	953.4	Not available
1943 . . .	923.9	938.4	955.4	944.3	930.4	913.1	903.6	887.5	891.3	923.8	938.2	894.9	979.3	937.0	974.3	
1944 . . .	923.6	929.9	939.6	924.2	931.8	915.1	940.2	902.0	876.2	916.9	935.0	912.9	935.7	947.3	970.9	
1945 . . .	917.5	922.9	944.6	937.5	923.7	906.4	899.9	894.9	897.1	896.1	931.7	904.7	915.6	953.4	942.1	
1946 . . .	923.7	919.5	966.0	936.9	943.2	929.9	900.4	897.6	914.2	961.9	939.2	892.3	940.1	925.7	943.6	
1947 . . .	925.2	929.7	953.6	955.5	929.1	901.9	923.1	833.7	930.0	913.3	923.2	901.6	941.3	954.4	955.6	
1948 . . .	924.2	925.7	973.2	934.9	932.7	906.0	904.3	894.7	901.0	912.3	941.7	909.5	934.9	969.4	959.5	
1949 . . .	927.9	932.2	944.7	919.9	931.5	903.3	839.3	911.9	936.1	927.3	927.2	895.2	949.1	974.0	969.6	
1950 . . .	932.7	930.6	946.0	927.7	923.7	893.7	867.4	832.3	946.2	911.3	1,035.5	853.1	913.9	912.2	933.0	

**TABLE 6**  
**TOTAL DEATHS 1941-50**

District	1941-50		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Burdwan . . . . .	192,412	179,802	19,148	17,370	17,861	16,440	24,842	22,625	25,046	23,605	18,673	17,712	18,581	16,938	18,480	17,134	17,538	17,306	16,453	16,067	15,790	14,605
Birbhum) . . . . .	144,278	143,118	12,047	11,126	11,574	11,266	20,612	19,377	20,244	20,956	14,766	15,181	15,779	15,982	13,612	13,291	11,531	11,466	12,244	12,436	11,869	11,637
Bankura . . . . .	138,629	130,306	13,949	13,093	12,937	12,444	20,883	19,287	15,885	15,699	13,540	12,373	12,357	10,877	13,495	13,047	12,551	11,978	11,779	11,877	11,253	10,231
Midnapur . . . . .	333,490	316,388	27,954	26,388	25,766	24,369	67,247	57,492	40,759	38,365	29,078	28,483	27,216	26,063	28,969	28,665	29,625	29,648	29,722	30,227	27,154	26,186
Hooghly . . . . .	121,129	112,077	11,508	10,708	11,069	10,090	14,810	12,686	15,160	14,225	13,096	12,875	11,645	10,554	11,960	10,944	11,323	10,961	10,560	10,085	9,998	8,949
Howrah . . . . .	185,072	122,198	10,890	9,766	8,999	8,028	19,627	15,047	20,670	19,146	15,012	13,801	12,911	11,598	12,586	11,727	12,625	11,872	11,363	10,723	10,399	10,490
24-Parganas	304,750	267,340	30,245	27,981	26,444	23,454	51,379	39,334	45,236	39,182	30,300	27,478	25,649	22,691	23,736	21,440	25,625	23,480	24,703	22,750	21,433	19,050
Calcutta . . . . .	233,568	193,701	19,713	16,463	14,473	10,121	27,709	24,559	29,602	23,243	23,824	18,054	20,249	15,888	22,358	18,777	25,767	22,411	22,523	19,339	27,350	24,846
Nadia . . . . .	121,650	115,998	11,408	10,348	11,844	10,588	19,134	15,851	14,917	12,860	11,891	12,619	12,212	10,113	9,721	9,615	9,417	9,493	9,654	8,641	8,166	
Murshidabad	204,943	193,791	16,862	14,569	17,413	15,920	33,131	31,942	28,826	28,090	24,930	23,687	23,626	23,165	17,699	16,175	14,704	13,842	14,346	14,220	13,406	12,181
Malda . . . . .	73,844	65,593	5,461	4,705	3,859	2,949	5,891	5,426	13,334	12,017	10,468	9,068	10,117	9,139	6,091	5,112	6,661	5,520	6,648	6,016	6,814	5,641
West Dinajpur	73,777	66,388	5,990	5,372	5,357	4,968	6,542	5,916	9,656	8,918	8,578	7,727	7,661	7,771	6,991	6,986	5,897	6,906	6,468	7,246	6,472	
Jalpaiguri . . . . .	111,291	104,298	10,422	10,017	10,211	9,991	13,933	12,871	14,147	13,168	12,515	11,692	12,243	11,177	9,776	8,964	9,381	8,786	9,171	9,030	9,492	8,902
Darjeeling . . . . .	50,932	47,118	5,576	5,141	5,476	4,797	5,870	5,388	6,013	5,515	5,672	5,266	5,624	4,411	4,416	4,115	4,469	4,293	4,215	4,051	4,601	4,141
Cooch Behar . . . . .																						
												Not available										

**TOTAL . . . . . 2,240,765 2,059,114 201,178 183,047 182,313 165,573 332,182 292,084 300,429 276,946 233,312 215,288 216,331 198,356 201,062 186,103 198,401 186,877 190,116 182,443 185,446 171,397**

**TABLE 7**  
**DEATH RATES (NUMBER OF DEATHS PER 1,000 OF THE SAME SEX)**  
**A—Calculated on the population as the census of 1941**

District	1941-50		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	<b>Average</b>																						
Burdwan . . . . .	19.8	20.2	18.2	19.5	17.9	18.4	24.9	25.4	25.1	26.5	13.7	13.9	18.6	18.9	18.5	19.2	17.6	19.4	16.5	18.0	15.8	16.4	
Birbhum . . . . .	27.5	27.3	23.0	21.2	22.1	21.5	39.3	37.9	36.6	40.0	23.2	23.0	30.1	30.5	26.0	25.4	22.0	21.9	23.3	23.7	22.6	22.0	
Bankura . . . . .	21.3	20.4	21.4	20.5	19.8	19.5	32.0	30.2	24.4	24.5	20.3	19.4	19.0	17.1	20.7	20.5	19.3	18.8	18.1	17.3	17.8	16.0	
Midnapur . . . . .	20.4	20.3	17.1	16.9	15.8	15.9	41.2	36.9	25.0	24.6	17.8	18.3	16.7	17.8	18.4	18.2	19.0	18.2	19.4	16.6	16.8		
Hooghly . . . . .	16.4	17.5	15.6	16.8	15.0	15.8	20.1	19.9	20.5	22.3	17.7	20.1	15.8	16.5	16.2	17.1	15.3	17.2	14.3	15.8	13.5	14.0	
Howrah . . . . .	16.2	16.6	13.1	14.9	10.8	12.2	23.6	22.9	24.8	29.1	13.1	21.0	15.5	17.7	15.1	17.8	15.2	18.1	13.6	16.3	12.5	16.0	
24-Parganas	15.1	16.1	15.0	16.9	13.1	14.2	25.5	24.1	22.5	23.7	15.1	16.6	12.7	13.7	11.8	12.9	12.7	14.2	12.8	13.7	10.6	11.5	
Calcutta . . . . .	16.1	20.5	13.6	25.1	10.0	15.4	19.1	37.4	20.4	35.4	16.4	27.5	14.0	24.2	15.4	23.6	17.8	34.1	15.5	20.5	18.8	37.8	
Nadia . . . . .	28.2	28.4	26.4	25.3	26.3	25.8	45.6	46.9	36.7	36.5	29.3	29.1	29.2	29.9	23.4	23.8	22.3	23.1	22.0	23.6	20.0	20.0	
Murshidabad	24.9	23.7	20.5	17.8	21.1	19.5	40.2	39.1	35.0	34.4	30.2	29.0	28.7	28.4	21.5	19.8	17.8	17.0	17.4	17.4	16.3	14.9	
Malda . . . . .	17.6	15.7	12.8	15.7	7.9	6.9	13.8	12.7	31.8	28.2	24.6	21.3	23.8	21.5	14.3	12.0	15.6	13.0	15.6	14.1	16.0	13.5	
West Dinajpur	24.2	23.9	19.6	19.3	17.6	17.9	21.4	21.3	31.6	32.1	26.1	27.8	28.5	27.5	25.4	25.1	22.9	21.2	22.6	23.8	23.7	23.3	
Jalpaiguri . . . . .	24.2	27.1	22.6	26.0	22.2	25.2	30.2	33.4	34.2	34.2	27.2	30.4	26.6	29.0	21.2	23.3	20.4	22.6	19.9	23.4	20.6	23.1	
Darjeeling . . . . .	25.5	26.7	27.9	29.1	27.4	27.2	29.4	30.5	30.1	31.2	28.4	29.8	23.1	25.0	22.1	23.3	23.4	24.3	21.1	23.0	23.0	23.5	
Cooch Behar . . . . .																							
											Not available												

**TOTAL . . . . . 19.5 21.2 17.5 18.9 15.9 17.1 23.9 30.1 26.1 23.5 20.3 22.2 18.8 20.4 17.5 19.2 17.3 19.2 16.5 18.8 16.1 17.7**

**TABLE 8**

**DEATH RATES (NUMBER OF DEATHS PER 1,000 OF THE SAME SEX) 1941-1950**

**B—Calculated on the estimated population on the 30th June of each year computed on the assumption that the population changed at a uniform rate from one census to the next**

District	1941-50		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
J	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
<b>Average</b>																						
Burdwan . . .	19.0	19.9	19.1	19.4	17.7	18.2	24.4	24.9	24.9	26.2	18.6	19.7	18.4	18.8	18.2	18.9	17.2	19.0	16.1	17.6	16.4	16.0
Birbhum . . .	27.4	27.8	23.9	21.1	21.7	21.2	39.2	36.9	38.4	39.8	28.2	29.1	30.1	30.7	26.1	25.7	22.1	22.2	23.4	24.0	22.8	22.3
Bankura . . .	20.9	20.1	21.8	20.4	19.6	19.3	31.4	29.6	24.2	24.8	20.6	19.8	18.6	16.8	20.2	19.9	18.8	18.3	17.5	17.8	16.7	15.5
Midnapur . . .	20.2	20.1	17.1	16.9	15.6	15.8	40.6	36.3	25.1	24.8	17.8	18.4	16.5	16.5	17.4	18.1	17.8	18.6	17.7	18.9	16.1	16.3
Hooghly . . .	16.0	17.1	15.6	16.7	14.8	15.6	19.6	19.4	20.1	21.7	17.4	19.7	15.3	16.0	15.6	16.5	14.7	16.6	18.7	15.2	12.9	13.4
Howrah . . .	16.3	18.6	13.1	14.8	10.7	12.1	23.8	22.6	24.9	29.2	18.2	21.1	15.6	17.7	15.2	17.9	15.8	18.2	18.7	16.4	12.6	16.1
24-Parganas	15.0	15.9	15.0	16.6	12.9	13.9	25.0	23.5	22.4	23.5	15.1	16.5	12.7	13.5	11.7	12.7	12.6	13.9	12.1	12.4	10.4	11.2
Calcutta . . .	16.6	30.9	13.6	25.1	10.0	15.5	19.2	37.8	20.9	37.0	17.0	29.1	14.5	25.6	16.0	30.4	18.6	36.6	16.2	31.6	19.6	39.6
Nadia . . .	27.1	27.6	26.4	25.3	24.7	24.5	42.6	44.1	35.3	35.6	28.9	28.6	28.2	29.3	22.6	23.3	21.5	22.6	21.1	23.1	19.2	19.5
Murshidabad	23.8	23.7	20.4	17.8	20.7	19.1	39.1	38.0	35.1	34.5	30.6	29.4	28.9	28.7	21.7	20.0	17.9	17.1	17.3	17.4	16.1	14.6
Malda . . .	17.3	15.2	12.8	11.2	7.7	6.8	13.4	12.5	30.7	27.9	24.2	21.2	23.4	21.2	14.1	11.9	16.0	12.8	15.1	13.7	15.4	12.3
West Dinajpur	24.0	23.9	19.6	19.2	17.5	18.0	21.1	21.8	31.2	32.1	28.0	28.1	28.4	27.8	25.4	25.4	22.8	21.4	22.9	22.8	23.5	23.3
Jaipalguri . .	26.8	29.7	22.6	26.0	24.5	27.6	33.4	36.5	34.4	37.9	30.9	34.2	30.3	32.7	24.1	26.1	22.9	25.3	22.1	25.7	22.7	25.1
Darjeeling . . .	25.6	26.7	27.9	29.2	27.4	27.1	29.4	30.4	30.4	31.4	28.9	30.2	23.5	25.3	22.3	23.4	22.4	24.2	21.0	22.7	22.7	23.0
Cooch Behar . .	Not available																					
<b>TOTAL</b> . . .	<b>19.4</b>	<b>21.2</b>	<b>17.5</b>	<b>18.8</b>	<b>15.7</b>	<b>18.2</b>	<b>28.5</b>	<b>29.6</b>	<b>26.2</b>	<b>28.6</b>	<b>20.4</b>	<b>22.3</b>	<b>18.9</b>	<b>20.4</b>	<b>17.5</b>	<b>19.1</b>	<b>17.2</b>	<b>19.2</b>	<b>16.4</b>	<b>18.6</b>	<b>16.0</b>	<b>17.4</b>

NOTE.—The high rates for females in Calcutta in this table and elsewhere are due to the male population of Calcutta being greatly overweighted by young adults.

**TABLE 9**

**ANNUAL DEATH RATES BY SEX AND AGE GROUPS 1941-1950**

**DEATHS REPORTED PER 1,000 OF THE SAME SEX AND AGE LIVING AT THE CENSUS OF 1941**

(Note—Rates for the age group "under 1 year" are calculated on the number of births recorded that year)

Age last birth day	Average of decade (1941-50)		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
All ages . . .	19.5	21.2	17.5	18.9	15.9	17.1	23.9	30.1	26.1	28.5	20.3	22.2	18.8	20.4	17.5	19.2	17.8	19.2	16.5	18.8	16.1	17.7
0-1 . . .	172.1	156.0	135.2	121.6	130.5	117.9	273.6	239.7	288.5	265.0	184.3	170.5	149.9	136.2	150.3	139.0	142.5	130.4	134.2	125.4	132.2	119.7
1-5 . . .	19.5	20.6	16.6	17.8	15.0	16.0	27.2	28.1	25.0	27.1	19.5	21.2	17.9	19.2	18.9	18.7	18.9	20.2	17.5	18.6	18.9	19.4
5-10 . . .	9.0	10.2	8.4	9.5	7.6	8.5	13.7	15.0	12.6	14.4	9.8	11.3	9.1	10.3	7.6	8.8	7.6	8.8	6.9	8.0	6.8	7.4
10-15 . . .	6.9	6.7	6.4	6.2	5.7	5.5	10.4	9.7	9.6	9.4	7.5	6.3	6.9	6.7	5.9	5.8	5.6	5.8	4.3	5.6	5.1	5.4
15-20 . . .	8.4	11.6	7.6	10.2	6.9	9.2	12.4	16.1	11.4	15.6	8.9	12.2	8.2	11.1	7.5	10.1	7.3	10.5	6.6	10.6	6.9	10.0
20-25 . . .	10.2	14.2	9.2	12.8	8.3	11.5	15.1	20.2	13.9	19.5	10.8	15.2	9.9	13.8	9.2	12.8	8.9	12.8	8.3	12.5	8.2	10.8
25-30 . . .	13.2	15.1	12.2	13.9	11.0	12.4	20.0	21.9	18.4	21.1	14.8	16.5	13.2	15.1	10.9	10.6	11.5	14.0	10.8	13.3	10.0	12.1
30-40 . . .	20.7	19.9	18.8	17.6	16.9	15.8	30.7	27.7	23.2	26.8	22.0	20.9	20.3	19.2	16.6	18.7	18.6	17.9	17.3	17.0	17.3	17.3
40-50 . . .	35.3	34.6	31.3	29.9	28.2	26.9	51.1	47.1	46.9	45.5	36.6	35.5	33.6	32.5	32.1	32.8	31.5	32.5	30.6	31.6	31.1	31.7
50-60 . . .	84.6	94.4	73.4	81.8	66.1	74.0	119.9	128.8	110.2	122.3	86.6	97.1	79.1	88.6	81.1	91.3	77.5	88.0	78.0	89.1	74.6	83.3

**TABLE 10**  
**FEMALE DEATHS PER 1,000 MALE DEATHS IN EACH DISTRICT 1941-1950**

Year	West Bengal	Burdwan	Birbhum	Bankura	Midnapur	Hooghly	Howrah	24-Parganas	Calcutta	Nadia	Murshidabad	Malda	West Dinajpur	Jalpalguri	Darjeeling	Cooch Behar
Average for 1941-50	918.5	934.4	992.0	940.0	948.7	925.3	904.7	877.2	829.3	953.6	945.6	876.4	899.3	937.2	925.2	
1941	909.9	907.1	923.5	938.6	944.0	930.5	896.8	925.1	835.1	907.1	864.0	861.6	896.8	961.1	922.0	
1942	908.2	920.4	973.4	961.9	965.2	911.6	892.1	886.9	699.3	928.9	914.8	877.9	921.8	949.1	876.0	
1943	879.3	910.8	964.3	923.6	854.9	856.6	766.6	775.3	886.3	971.0	964.1	921.1	904.9	923.8	917.9	
1944	921.8	942.5	1,035.2	982.0	941.3	938.3	926.3	866.2	785.2	941.1	974.5	901.2	923.6	930.8	917.2	
1945	922.7	950.4	1,028.1	913.8	979.5	983.1	919.3	906.9	757.8	924.7	950.1	966.3	900.8	934.2	923.4	
1946	916.9	911.6	1,012.9	880.2	957.6	906.3	893.3	884.7	784.6	987.7	980.5	903.3	879.1	912.9	953.9	
1947	925.6	927.2	976.4	966.8	989.5	915.1	931.7	903.3	839.3	961.2	913.9	839.3	899.6	916.9	931.8	
1948	941.9	986.8	994.4	954.3	1,000.8	963.0	940.4	916.3	869.3	979.4	941.4	823.7	844.1	936.9	960.6	
1949	959.6	976.5	1,015.7	965.9	1,017.0	955.0	944.2	920.9	858.6	1,017.0	991.2	904.9	673.3	984.6	961.1	
1950	924.2	925.0	972.0	909.2	964.4	895.1	1,003.3	838.3	903.4	945.0	903.6	827.9	893.2	937.3	900.0	Not available

**TABLE 11**  
**NUMBER OF DEATHS ANNUALLY REPORTED FOR EACH SEX BY AGE GROUPS 1941-1950**  
**A—Males**

Age	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1941-50	Male deaths per 1,000 female deaths, average 1941-50
1	2	3	4	5	6	7	8	9	10	11	12	13
1 All ages	201,173	182,313	332,182	300,429	233,276	216,331	201,062	198,401	190,116	185,446	224,073	1,089
2 0-5	53,480	52,999	96,566	87,384	67,813	62,873	55,629	57,178	55,739	54,030	64,869	1,101
3 0-1	37,900	34,348	62,533	56,800	43,949	40,754	33,385	33,575	33,976	30,412	40,748	1,183
4 Under 1 month	20,754	18,809	34,271	30,994	24,066	22,317	16,797	18,144	18,463	14,954	21,957	1,281
5 1 to 6 months	12,007	10,881	19,826	17,931	13,923	12,909	11,134	10,490	10,781	10,133	13,002	1,121
6 6 to 12 months	5,139	4,653	8,436	7,675	5,360	5,523	5,454	4,941	4,732	5,320	5,739	1,041
7 1 to 5 years	20,580	18,651	33,933	30,734	23,364	22,103	22,243	23,603	21,813	23,613	24,121	981
8 5-10	13,360	12,561	22,337	20,700	16,073	14,900	12,644	12,669	11,441	11,233	14,397	1,031
9 10-15	8,450	7,657	13,952	12,613	9,793	9,102	7,333	7,692	7,140	6,374	9,117	1,269
10 15-20	7,346	7,119	12,955	11,717	9,093	8,430	7,716	7,555	6,346	7,130	8,640	802
11 20-30	19,071	17,233	31,491	28,431	22,115	20,496	19,051	18,607	17,262	17,192	21,105	771
12 30-40	21,505	19,490	35,510	32,116	24,936	23,136	21,164	20,405	19,145	17,710	23,512	1,135
13 40-50	21,265	19,270	35,112	31,755	24,657	22,333	22,222	21,243	19,791	19,760	23,796	1,473
14 50-60	19,316	17,953	32,720	29,593	22,973	21,293	20,517	20,140	19,333	19,331	22,443	1,351
15 60 & above	30,380	27,935	50,990	46,116	35,303	33,203	34,232	32,912	33,119	31,336	35,639	1,059

**TABLE 12**  
**NUMBER OF DEATHS ANNUALLY REPORTED FOR EACH SEX BY AGE GROUPS 1941-1950**  
**B—Females**

Age	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1941-50	Female deaths per 1,000 male deaths, average 1941-50
1	2	3	4	5	6	7	8	9	10	11	12	13
1 All ages . . . . .	183,047	165,573	202,083	276,946	215,288	198,356	186,103	186,877	182,443	171,397	206,811	918
2 0-5 . . . . .	52,863	47,817	84,353	79,982	62,175	57,283	50,978	52,780	51,791	48,920	53,894	908
3 6-1 . . . . .	81,740	28,710	50,847	48,022	87,331	84,394	23,569	28,415	29,463	25,098	34,299	843
4 Under 1 month . . . . .	16,184	14,639	25,825	24,486	19,035	17,541	13,123	14,007	14,764	11,735	17,135	780
5 1 to 6 months . . . . .	10,703	9,681	17,073	16,193	12,588	11,594	10,077	9,440	9,836	8,841	11,603	892
6 6 to 12 months . . . . .	4,853	4,390	7,744	7,343	5,708	5,259	5,364	4,968	4,863	5,122	5,561	961
7 1 to 5 years . . . . .	21,123	19,107	33,706	31,960	24,844	22,889	22,409	24,365	22,328	23,222	24,595	1,020
8 6-10 . . . . .	13,400	12,120	21,380	20,273	15,760	14,514	12,486	12,539	11,393	10,604	14,447	970
9 10-15 . . . . .	6,553	5,928	10,457	9,915	7,707	7,103	6,193	6,203	5,980	5,793	7,184	788
10 15-20 . . . . .	9,500	8,593	15,160	14,373	11,173	10,299	9,375	9,378	10,013	9,323	10,770	1,246
11 20-30 . . . . .	24,546	22,203	39,168	37,138	28,370	26,610	24,611	24,989	24,256	21,001	27,359	1,296
12 30-40 . . . . .	18,598	16,822	29,078	28,138	21,873	20,145	18,754	18,846	17,884	16,306	20,713	881
13 40-50 . . . . .	14,260	12,898	22,753	21,574	16,771	15,459	15,183	14,555	13,353	14,167	16,147	679
14 50-60 . . . . .	14,332	12,965	22,370	21,685	16,867	15,525	15,743	15,494	15,275	15,363	16,611	740
15 60 & above . . . . .	28,995	26,227	46,266	43,868	34,102	31,415	32,580	31,593	31,993	29,820	33,666	943

**TABLE 13**  
**FEMALE DEATHS PER 1,000 MALE DEATHS ANNUALLY BY RELIGIONS 1941-1950**

Annual average	Hindu	Muslim	Christian	Aboriginals	Jains
1941-50 . . . . .	922.5	896.9	851.6		
1941 . . . . .	924.3	934.6	892.9		
1942 . . . . .	917.8	897.1	823.4		
1943 . . . . .	876.1	799.8	813.1		
1944 . . . . .	925.6	896.2	850.3		
1945 . . . . .	928.4	924.0	871.9	Not available	
1946 . . . . .	912.0	931.2	928.8		
1947 . . . . .	929.8	906.8	898.1		
1948 . . . . .	942.7	910.2	856.9		
1949 . . . . .	959.3	970.4	835.3		
1950 . . . . .	936.3	869.2	911.9		

**TABLE 14**  
**MONTHLY AVERAGE NUMBER OF FEMALE DEATHS PER 1,000 MALE DEATHS,**  
**ALL RELIGIONS, HINDU AND MUSLIM 1941-1950**

Average of each month (1941-50)	All religions	Hindu	Muslim
January . . . . .	918.0	933.0	910.4
February . . . . .	892.4	908.3	900.7
March . . . . .	877.6	906.0	856.0
April . . . . .	888.7	898.1	848.3
May . . . . .	886.6	906.6	857.1
June . . . . .	875.4	894.6	841.5
July . . . . .	887.4	896.2	876.2
August . . . . .	896.1	904.9	869.3
September . . . . .	901.1	904.7	889.2
October . . . . .	934.2	941.3	924.8
November . . . . .	970.1	970.4	979.9
December . . . . .	957.6	964.1	920.1









TABLE 15.7

## ANNUAL DEATHS FROM "SUICIDE" BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal . . . . .	552	539	489	531	484	528	643	543	560	475	552	540
Burdwan . . . . .	41	41	47	54	39	50	40	31	45	32	53	43
Birbhum . . . . .	23	20	21	31	28	33	24	14	29	12	18	12
Bankura . . . . .	35	32	38	38	37	39	43	24	36	32	25	40
Midnapur . . . . .	46	44	49	42	35	37	51	52	46	45	43	43
Hoozhly . . . . .	58	67	63	76	55	73	76	79	47	63	44	60
Howrah . . . . .	69	62	47	54	46	46	122	95	95	48	74	65
24-Parganas . . . . .	136	140	122	162	122	171	165	159	105	123	101	145
Calcutta . . . . .	43	29	12	7	19	9	8	4	38	25	67	32
Nadia . . . . .	24	26	10	6	15	9	13	4	18	14	23	20
Murshidabad . . . . .	42	43	31	25	40	33	42	45	48	41	67	51
Malda . . . . .	15	14	11	8	9	7	18	17	15	12	14	9
West Dinajpur . . . . .	12	10	13	12	11	6	10	9	8	6	13	10
Jalpaiguri . . . . .	15	9	10	12	16	8	13	8	11	10	10	6
Darjeeling . . . . .	18	7	15	4	12	5	18	2	19	12	20	9
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..	..	..

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal . . . . .	578	598	507	490	557	559	592	595	555	534
Burdwan . . . . .	40	43	38	30	35	37	43	51	25	43
Birbhum . . . . .	16	23	26	24	21	20	28	20	20	14
Bankura . . . . .	39	31	34	27	27	25	37	42	34	22
Midnapur . . . . .	35	49	45	38	50	52	59	49	42	32
Hoozhly . . . . .	48	67	67	54	72	65	59	72	51	63
Howrah . . . . .	70	85	57	54	55	55	48	44	74	77
24-Parganas . . . . .	111	133	78	110	92	121	107	175	111	103
Calcutta . . . . .	49	22	45	43	65	51	69	46	68	52
Nadia . . . . .	38	37	32	24	20	45	38	54	33	47
Murshidabad . . . . .	38	56	38	50	58	44	30	42	38	47
Malda . . . . .	20	15	15	8	19	17	16	26	13	18
West Dinajpur . . . . .	10	14	11	12	11	10	17	10	18	6
Jalpaiguri . . . . .	45	19	7	7	13	7	12	6	10	5
Darjeeling . . . . .	19	4	14	9	19	10	29	16	18	5
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..

TABLE 15.8

## ANNUAL DEATHS FROM "CHILD BIRTH", 1941-50

	Average for 1941-50	1941	1942	1943	1944	1945
	West Bengal . . . . .	3,391	3,755	3,335	2,934	2,875
Burdwan . . . . .	292	350	321	259	200	246
Birbhum . . . . .	157	195	220	162	112	142
Bankura . . . . .	170	239	210	178	140	140
Midnapur . . . . .	565	685	557	509	435	534
Hoozhly . . . . .	228	290	279	230	215	183
Howrah . . . . .	137	192	122	148	193	183
24-Parganas . . . . .	379	518	416	332	318	154
Calcutta . . . . .	191	51	29	51	208	892
Nadia . . . . .	128	68	45	26	105	203
Murshidabad . . . . .	160	98	146	115	152	136
Malda . . . . .	110	111	107	89	125	139
West Dinajpur . . . . .	226	193	189	212	204	117
Jalpaiguri . . . . .	537	633	554	480	389	236
Darjeeling . . . . .	112	121	140	113	102	444
Cooch Behar . . . . .	..	..	..	..	..	121

  

	1946	1947	1948	1949	1950
	West Bengal . . . . .	3,781	3,081	3,937	4,113
Burdwan . . . . .	312	291	339	366	289
Birbhum . . . . .	157	121	179	187	93
Bankura . . . . .	185	169	159	181	122
Midnapur . . . . .	593	536	671	620	507
Hoozhly . . . . .	218	203	265	238	162
Howrah . . . . .	160	97	129	112	66
24-Parganas . . . . .	373	304	415	439	282
Calcutta . . . . .	239	170	340	340	300
Nadia . . . . .	175	123	218	216	113
Murshidabad . . . . .	193	140	229	185	149
Malda . . . . .	131	98	110	138	77
West Dinajpur . . . . .	263	246	232	294	188
Jalpaiguri . . . . .	679	473	547	641	500
Darjeeling . . . . .	103	110	104	136	67
Cooch Behar . . . . .	..	..	..	..	..



TABLE 15.11

## ANNUAL DEATHS FROM "TUBERCULOSIS OF THE LUNGS" BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal . . . . .	4,826	2,621	5,032	2,957	4,378	2,356	4,488	2,342	4,772	2,546	4,585	2,366
Burdwan . . . . .	411	108	457	131	430	117	369	107	374	112	347	78
Birbhum . . . . .	155	39	235	61	173	46	134	31	134	42	159	38
Bankura . . . . .	301	69	325	77	320	79	238	54	266	76	320	57
Midnapur . . . . .	391	83	364	86	289	71	351	66	406	72	340	74
Hooghly . . . . .	315	114	377	128	327	138	355	117	329	108	269	117
Howrah . . . . .	469	238	432	272	381	213	467	198	558	261	576	272
24-Parganas . . . . .	593	250	648	292	597	228	573	192	564	242	582	278
Calcutta . . . . .	1,396	1,267	1,494	1,516	1,199	1,049	1,308	1,164	1,449	1,240	1,350	1,109
Nadia . . . . .	68	16	53	14	42	16	56	20	62	18	65	11
Murshidabad . . . . .	119	26	98	35	102	28	84	11	124	19	152	29
Malda . . . . .	25	7	15	8	13	3	20	7	26	8	23	9
West Dinajpur . . . . .	43	14	39	14	23	17	43	11	47	13	36	16
Jalpaiguri . . . . .	269	148	224	101	2,114	87	228	118	174	90	120	46
Darjeeling . . . . .	271	243	271	222	263	264	262	246	259	245	246	232
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..	..	..

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal . . . . .	4,792	2,435	4,948	2,689	5,210	2,862	5,144	2,840	4,907	2,814
Burdwan . . . . .	445	110	448	99	458	113	398	105	385	107
Birbhum . . . . .	171	38	128	29	154	42	150	33	116	33
Bankura . . . . .	303	53	312	54	297	80	299	78	338	86
Midnapur . . . . .	385	65	396	64	425	109	472	91	480	127
Hooghly . . . . .	289	90	264	99	301	106	309	132	331	100
Howrah . . . . .	430	218	470	243	468	252	473	277	433	175
24-Parganas . . . . .	609	264	590	267	615	252	633	239	519	248
Calcutta . . . . .	1,436	1,173	1,496	1,348	1,494	1,402	1,413	1,276	1,317	1,388
Nadia . . . . .	74	17	78	22	82	23	77	15	87	7
Murshidabad . . . . .	124	22	134	33	136	28	120	29	122	21
Malda . . . . .	28	9	21	7	35	6	31	8	40	3
West Dinajpur . . . . .	53	16	34	16	41	11	65	16	46	12
Jalpaiguri . . . . .	209	116	237	160	406	195	408	277	417	292
Darjeeling . . . . .	236	246	290	248	308	243	296	264	281	215
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..

TABLE 15.12

## ANNUAL DEATHS FROM "SNAKE BITES" BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal . . . . .	873	771	963	796	863	761	748	631	850	767	820	776
Burdwan . . . . .	94	76	136	79	109	83	73	89	85	79	78	72
Birbhum . . . . .	37	38	44	30	52	47	37	42	37	43	31	46
Bankura . . . . .	58	59	71	75	64	65	57	56	59	57	46	48
Midnapur . . . . .	171	130	151	125	148	112	133	88	166	162	163	131
Hooghly . . . . .	74	66	101	93	55	73	84	71	57	63	73	63
Howrah . . . . .	34	26	37	18	35	28	27	18	38	29	34	22
24-Parganas . . . . .	179	138	218	186	220	172	151	119	167	134	168	116
Calcutta . . . . .	10	3	..	..	4	1	..	..	11	3	10	3
Nadia . . . . .	49	52	51	86	33	45	49	38	54	43	41	56
Murshidabad . . . . .	74	89	76	89	61	52	59	43	82	80	89	127
Malda . . . . .	39	40	34	33	31	38	26	12	42	27	39	38
West Dinajpur . . . . .	32	39	21	19	29	30	34	39	38	34	28	41
Jalpaiguri . . . . .	19	13	18	9	20	13	15	11	11	10	19	8
Darjeeling . . . . .	3	3	5	4	2	2	3	5	3	3	1	6
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..	..	..

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal . . . . .	906	882	913	778	955	762	882	794	830	765
Burdwan . . . . .	86	79	85	73	96	67	94	69	93	70
Birbhum . . . . .	27	30	30	18	33	38	41	42	37	41
Bankura . . . . .	60	67	62	61	57	56	50	55	56	53
Midnapur . . . . .	158	155	186	115	241	156	195	136	167	124
Hooghly . . . . .	72	60	62	61	74	42	71	54	70	62
Howrah . . . . .	43	30	42	30	28	29	25	31	27	28
24-Parganas . . . . .	183	162	193	123	168	108	163	133	161	125
Calcutta . . . . .	15	3	7	3	15	2	24	7	10	5
Nadia . . . . .	61	48	58	81	45	63	54	55	48	52
Murshidabad . . . . .	98	114	71	104	90	94	54	93	63	90
Malda . . . . .	46	65	34	45	45	50	47	45	44	46
West Dinajpur . . . . .	35	44	39	43	33	43	35	49	30	45
Jalpaiguri . . . . .	16	4	21	17	22	17	25	24	20	22
Darjeeling . . . . .	6	1	3	2	3	6	4	1	4	2
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..



TABLE 16.3

DEATH RATE FROM "SMALL-POX" PER 1,000 OF EACH SEX CALCULATED ON THE POPULATION OF 1941 FOR 1941-50 AND FOR EACH INDIVIDUAL YEAR BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.4	.4	.4	.5	.04	.1	.1	.1	.8	1.0	1.0	1.2
Burdwan	.3	.3	.4	.4	.1	.1	.01	.02	.1	.2	.9	1.1
Birbhum	.2	.2	.1	.1	.2	.1	.1	.1	.2	.2	.8	.8
Bankura	.1	.1	.1	.1	.01	.01	.004	.03	.1	.1	1.7	1.6
Midnapur	.4	.4	.8	.4	.02	.02	.03	.04	.6	.8	1.5	2.0
Hooghly	.9	1.1	.6	.8	.1	.2	.1	.2	3.0	4.1	2.5	3.2
Howrah	.3	.3	.4	.5	.1	.1	.1	.1	.7	.8	1.1	1.2
24-Parganas	1.1	2.3	1.7	3.1	.04	.1	.5	.9	2.6	5.6	1.5	3.1
Calcutta	.8	.8	.1	.2	.005	.01	.1	.1	.6	.7	.3	.4
Nadia	.2	.2	.1	.1	.01	.02	.02	.02	.1	.1	1.3	1.3
Murshidabad	.1	.1	.1	.1	.02	.02	.01	.003	.1	.1	.5	.6
Malda	.2	.3	.02	.03	.01	.01	.04	.04	.8	.9	.2	.3
West Dinajpur	.03	.02	.01	.01	.004	.01	.03	.04	.1	.1	.1	.1
Jalpaiguri	.1	.04	.01	.01	.01	.02	.03	.01	.03	.1	.2	.1
Darjeeling	.1	.04	.01	.01	.01	.02	.03	.01	.03	.1	.2	.1
Cooch Behar	.1	.04	.01	.01	.01	.02	.03	.01	.03	.1	.2	.1

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.2	.3	.1	.2	.3	.4	.1	.1	.5	.6
Burdwan	.7	.9	.1	.1	.1	.2	.04	.04	.3	.4
Birbhum	.4	.4	.1	.04	.1	.1	.01	.01	.1	.1
Bankura	.2	.1	.02	.02	.1	.1	.01	.005	.2	.2
Midnapur	.01	.01	.02	.02	.1	.1	.03	.03	.2	.2
Hooghly	.2	.2	.1	.04	.2	.2	.04	.04	.6	.6
Howrah	.3	.4	.1	.1	.6	.8	.1	.1	1.0	1.4
24-Parganas	.1	.1	.02	.02	.2	.2	.1	.1	.2	.2
Calcutta	.04	.1	.6	1.6	1.7	3.7	.2	.4	1.9	4.7
Nadia	.5	.5	.1	.1	.1	.1	.04	.1	.6	.6
Murshidabad	.5	.5	.03	.04	.03	.04	.01	.01	.2	.2
Malda	.1	.2	.04	.02	.2	.2	.005	.01	.2	.2
West Dinajpur	.6	.6	.4	.4	.05	.1	.01	.01	.2	.2
Jalpaiguri	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
Darjeeling	.04	.01	.1	.1	.01	.01	.02	.03	.2	.1
Cooch Behar	.1	.04	.01	.01	.01	.02	.03	.01	.2	.1

TABLE 16.4

DEATH RATE FROM "PLAGUE" PER 1,000 OF EACH SEX CALCULATED ON THE POPULATION OF 1941 FOR 1941-50 AND FOR EACH INDIVIDUAL YEAR BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Burdwan	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Birbhum	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Bankura	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Midnapur	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Hooghly	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Howrah	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
24-Parganas	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Calcutta	.005	.003	.001	.002	.001	.002	.001	.002	.001	.002	.001	.002
Nadia	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Murshidabad	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Malda	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
West Dinajpur	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Jalpaiguri	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Darjeeling	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001
Cooch Behar	.001	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0001

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Burdwan	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Birbhum	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Bankura	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Midnapur	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Hooghly	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Howrah	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
24-Parganas	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Calcutta	.002	.001	.004	.002	.01	.003	.03	.02	.002	.001
Nadia	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Murshidabad	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Malda	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
West Dinajpur	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Jalpaiguri	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Darjeeling	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001
Cooch Behar	.0003	.0001	.0001	.0001	.0001	.0004	.0004	.0001	.0003	.0001









TABLE 16.11

DEATH RATE FROM "T. B. OF THE LUNGS" PER 1,000 OF EACH SEX CALCULATED ON THE POPULATION OF 1941 FOR 1941-50 AND FOR EACH INDIVIDUAL YEAR BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.4	.3	.4	.3	.4	.2	.4	.2	.4	.3	.4	.2
Burdwan	.4	.1	.5	.1	.4	.1	.4	.1	.4	.1	.3	.1
Birbhum	.3	.1	.4	.1	.3	.1	.3	.1	.3	.1	.3	.1
Bankura	.5	.1	.6	.1	.5	.1	.4	.1	.4	.1	.5	.1
Midnapur	.2	.1	.2	.1	.2	.05	.2	.04	.2	.05	.2	.05
Hooghly	.4	.2	.5	.2	.4	.2	.5	.2	.4	.2	.4	.2
Howrah	.6	.4	.5	.4	.5	.3	.6	.3	.7	.4	.7	.4
24-Parganas	.3	.2	.3	.2	.3	.1	.3	.1	.3	.1	.3	.1
Calcutta	1.0	1.0	1.0	2.3	.8	1.6	.9	1.8	1.0	1.0	.9	1.7
Nadia	.2	.02	.1	.02	.1	.02	.1	.03	.1	.03	.2	.02
Murshidabad	.1	.03	.1	.04	.1	.03	.1	.01	.2	.02	.2	.02
Malda	.1	.02	.04	.02	.03	.01	.05	.02	.1	.02	.1	.02
West Dinajpur	.1	.1	.1	.1	.1	.1	.1	.04	.2	.05	.1	.1
Jalpaiguri	.6	.4	.5	.3	.5	.2	.5	.3	.4	.2	.3	.1
Darjeeling	1.4	1.4	1.4	1.3	1.3	1.5	1.3	1.4	1.3	1.4	1.2	1.3
Cooch Behar	..	..	..	..	..	..	..	..	..	..	..	..

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.4	.2	.4	.3	.5	.3	.4	.3	.4	.3
Burdwan	.4	.1	.4	.1	.5	.1	.4	.1	.4	.1
Birbhum	.3	.1	.2	.1	.3	.1	.3	.1	.2	.1
Bankura	.5	.1	.5	.1	.5	.1	.5	.1	.5	.1
Midnapur	.2	.04	.2	.04	.2	.1	.3	.1	.3	.1
Hooghly	.4	.1	.4	.2	.4	.2	.4	.2	.4	.2
Howrah	.5	.3	.6	.4	.6	.4	.6	.4	.5	.3
24-Parganas	.3	.2	.3	.2	.3	.2	.3	.1	.3	.2
Calcutta	1.0	1.8	1.0	2.1	1.0	2.1	1.0	1.9	.9	2.1
Nadia	.2	.04	.2	.1	.2	.1	.2	.04	.2	.01
Murshidabad	.2	.03	.2	.04	.2	.04	.1	.04	.2	.03
Malda	.1	.02	.05	.02	.1	.02	.1	.02	.1	.01
West Dinajpur	.2	.1	.1	.1	.1	.1	.2	.1	.2	.04
Jalpaiguri	.5	.3	.6	.4	.9	.5	.9	.7	.9	.8
Darjeeling	1.2	1.4	1.5	1.4	1.5	1.4	1.5	1.5	1.4	1.2
Cooch Behar	..	..	..	..	..	..	..	..	..	..

TABLE 16.12

DEATH RATE FROM "SNAKE BITES" PER 1,000 OF EACH SEX CALCULATED ON THE POPULATION OF 1941 FOR 1941-50 AND FOR EACH INDIVIDUAL YEAR BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Burdwan	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Birbhum	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Bankura	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Midnapur	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Hooghly	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Howrah	.04	.04	.04	.03	.04	.04	.03	.03	.05	.04	.04	.03
24-Parganas	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Calcutta	.01	.005	..	..	.003	.002	..	..	.01	.005	.01	.005
Nadia	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Murshidabad	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2
Malda	.1	.1	.1	.1	.1	.1	.1	.03	.1	.1	.1	.1
West Dinajpur	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Jalpaiguri	.04	.03	.04	.02	.04	.03	.03	.03	.02	.03	.04	.02
Darjeeling	.02	.02	.03	.02	.01	.01	.02	.03	.02	.02	.01	.03
Cooch Behar	..	..	..	..	..	..	..	..	..	..	..	..

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Burdwan	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Birbhum	.1	.1	.1	.03	.1	.1	.1	.1	.1	.1
Bankura	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Midnapur	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Hooghly	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Howrah	.05	.04	.05	.04	.03	.04	.04	.04	.03	.04
24-Parganas	.1	.1	.1	.1	.1	.1	.03	.04	.03	.04
Calcutta	.01	.005	.005	.005	.01	.003	.02	.01	.01	.01
Nadia	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Murshidabad	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Malda	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1
West Dinajpur	.1	.2	.1	.2	.1	.2	.1	.2	.1	.2
Jalpaiguri	.03	.01	.05	.04	.05	.04	.1	.2	.1	.2
Darjeeling	.03	.01	.02	.01	.02	.03	.1	.1	.04	.1
Cooch Behar	..	..	..	..	..	..	..	..	..	..



TABLE 17.3

## DEATH RATE FROM "SMALL-POX" PER 1,000 DEATHS FROM ALL CAUSES BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	West Bengal	19.0	20.7	24.2	24.1	2.8	3.1	3.6	8.7	31.7	34.9	51.0
Burdwan	14	17	18	20	7	7	6	6	5	6	46	57
Birbhum	7	7	5	6	7	6	1	2	5	6	27	23
Bankura	11	11	3	4	0.3	0.6	0.1	..	4	4	71	81
Midnapur	5	5	3	3	0.2	0.1	0.8	0.7	9	9	19	21
Hooghly	22	25	22	23	1	1	1	2	30	36	87	98
Howrah	53	60	50	62	10	13	6	8	120	140	138	155
24-Parganas	19	21	29	31	4	5	7	4	80	36	71	75
Calcutta	67	79	126	125	4	4	26	25	127	158	89	114
Nadia	9	10	5	6	0.2	0.3	2	2	17	18	11	14
Murshidabad	9	10	3	5	0.3	1	4	4	4	3	42	45
Malda	8	9	8	10	2	2	1	0.2	4	4	21	26
West Dinajpur	9	11	1	1	0.4	1	2	2	24	23	8	10
Jalpaiguri	1	1	..	..	0.2	..	1	1	5	3	3	1
Darjeeling	3	1	..	..	..	0.6	1	0.2	2	2	6	4
Cooch Behar	..	..	..	..	..	..	..	..	..	..	..	..

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	West Bengal	11.3	12.7	7.6	9.5	20.0	21.1	3.3	3.3	31.9
Burdwan	36	45	7	7	8	10	2	2	18	2
Birbhum	14	11	2	2	4	4	0.3	..	5	4
Bankura	7	6	8	1.0	5	6	..	..	9	9
Midnapur	0.7	0.7	1	1	4	4	2	1	11	12
Hooghly	10	9	3	3	11	13	3	2	48	65
Howrah	17	20	9	7	46	42	8	7	83	88
24-Parganas	7	8	2	2	13	12	4	4	19	16
Calcutta	3	4	42	55	95	110	13	15	101	123
Nadia	17	18	3	3	4	6	2	3	23	32
Murshidabad	19	19	1	2	2	2	1	1	15	15
Malda	5	7	3	1	11	11	0.3	0.5	15	16
West Dinajpur	20	23	16	13	2	3	..	..	7	8
Jalpaiguri	0.3	0.2	0.3	0.2	0.4	..	..	..	1	1
Darjeeling	1	0.2	4	2	4	..	..	..	8	6
Cooch Behar	..	..	..	..	..	..	..	..	..	..

TABLE 17.4

## DEATH RATE FROM "PLAGUE" PER 1,000 DEATHS FROM ALL CAUSES BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	West Bengal	-0.3	-0.1	-0.05	-0.05	..	..	..	..	-0.1	-0.04	..
Burdwan	..	..	..	..	..	..	..	..	..	..	..	..
Birbhum	..	..	..	..	..	..	..	..	..	..	..	..
Bankura	..	..	..	..	..	..	..	..	..	..	..	..
Midnapur	..	..	..	..	..	..	..	..	..	..	..	..
Hooghly	..	..	..	..	..	..	..	..	..	..	..	..
Howrah	..	..	..	..	..	..	..	..	..	..	..	..
24-Parganas	..	..	..	..	..	..	..	..	..	..	..	..
Calcutta	..	..	..	..	..	..	..	..	..	..	..	..
Nadia	-3	-1	-1	-1	..	..	..	..	-1	-0.4	..	..
Murshidabad	..	..	..	..	..	..	..	..	..	..	..	..
Malda	..	..	..	..	..	..	..	..	..	..	..	..
West Dinajpur	..	..	..	..	..	..	..	..	..	..	..	..
Jalpaiguri	..	..	..	..	..	..	..	..	..	..	..	..
Darjeeling	..	..	..	..	..	..	..	..	..	..	..	..
Cooch Behar	..	..	..	..	..	..	..	..	..	..	..	..

  

	1946		1947		1948		1949		1950	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	West Bengal	-0.1	..	-0.3	-0.1	-1	-0.2	-2	-1	-0.2
Burdwan	..	..	..	..	..	..	-1	..	..	..
Birbhum	..	..	..	..	..	..	..	..	..	..
Bankura	..	..	..	..	..	..	..	..	..	..
Midnapur	..	..	..	..	..	..	..	..	..	..
Hooghly	..	..	..	..	-0.3	..	..	..	..	..
Howrah	..	..	..	..	..	-1	..	..	..	..
24-Parganas	..	..	..	..	..	..	-4	-2	..	..
Calcutta	..	..	..	..	..	..	..	..	..	..
Nadia	-1	..	-3	-1	-5	-1	1.8	-5	-1	..
Murshidabad	..	..	..	..	..	..	..	..	..	..
Malda	..	..	..	..	..	..	..	..	..	..
West Dinajpur	..	..	..	..	..	-2	..	..	..	..
Jalpaiguri	..	..	..	..	..	..	..	..	..	..
Darjeeling	..	..	..	..	..	..	..	..	..	..
Cooch Behar	..	..	..	..	..	..	..	..	..	..



TABLE 17.7

## DEATH RATE FROM "SUICIDE" PER 1,000 DEATHS FROM ALL CAUSES BY SEX, 1941-50

	Average for 1941-50		1941		1942		1943		1944		1945	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
West Bengal . . . . .	2.5	2.6	2.4	2.9	2.7	3.2	1.9	1.9	1.9	1.7	2.4	2.5
Burdwan . . . . .	2.1	2.3	2.5	3.1	2.2	3.0	1.6	1.4	1.8	1.4	2.8	2.4
Birbhum . . . . .	1.6	1.4	1.7	2.8	2.8	2.9	1.2	1.0	1.4	1.0	1.2	1.0
Bankura . . . . .	2.5	2.5	2.7	2.9	2.9	3.1	2.1	1.2	2.3	2.1	1.9	3.2
Midnapur . . . . .	1.4	1.4	1.8	1.6	1.4	1.5	1.0	1.0	1.1	1.2	1.5	1.5
Hooghly . . . . .	4.8	6.0	5.5	7.1	5.0	5.8	5.1	6.2	3.1	4.4	3.4	4.7
Howrah . . . . .	5.1	5.1	4.3	5.5	5.1	5.7	6.2	6.3	4.6	2.5	4.9	4.7
24-Parganas . . . . .	4.5	5.2	4.0	6.8	4.6	7.3	3.2	4.0	2.8	3.1	3.3	5.8
Calcutta . . . . .	1.8	1.5	1.0	0.4	1.3	1.0	0.3	0.2	1.3	1.1	2.4	1.8
Nadia . . . . .	2.0	2.2	1.0	1.0	1.3	1.0	1.0	0.2	1.1	1.0	1.8	1.7
Murshidabad . . . . .	2.0	2.2	1.8	1.7	2.3	2.1	1.3	1.4	1.7	1.5	2.3	2.2
Malda . . . . .	2.0	2.1	2.0	1.7	1.7	1.4	3.1	3.1	1.1	1.0	1.3	1.0
West Dinajpur . . . . .	1.6	1.5	2.2	2.2	2.0	1.2	1.5	1.5	1.0	1.0	1.5	1.3
Jalpaiguri . . . . .	1.3	1.0	1.0	1.2	1.6	1.0	1.0	1.0	1.0	1.0	1.0	0.5
Darjeeling . . . . .	3.5	1.5	2.7	1.0	2.2	1.0	3.1	0.4	3.2	2.2	3.5	1.0
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..	..	..
	1946		1947		1948		1949		1950			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
West Bengal . . . . .	2.7	3.0	2.5	2.6	2.8	3.0	3.1	3.3	3.0	3.1		
Burdwan . . . . .	2.2	2.5	2.1	1.8	2.0	2.1	2.6	3.2	1.6	2.9		
Birbhum . . . . .	1.0	1.4	1.9	1.8	1.8	1.7	2.3	1.6	1.7	1.2		
Bankura . . . . .	3.2	2.9	2.5	2.1	2.2	2.1	3.1	3.7	3.0	2.2		
Midnapur . . . . .	1.3	1.9	1.6	1.3	1.7	1.8	2.0	1.6	1.6	1.2		
Hooghly . . . . .	4.1	6.4	5.6	4.9	6.4	5.9	5.6	7.1	5.1	7.0		
Howrah . . . . .	5.4	7.3	4.5	4.6	4.4	4.6	4.2	4.1	7.1	7.4		
24-Parganas . . . . .	4.3	5.9	3.3	5.1	3.6	5.2	4.3	7.7	5.2	5.4		
Calcutta . . . . .	2.4	1.4	2.0	2.3	2.5	2.3	3.1	2.4	2.5	2.1		
Nadia . . . . .	3.0	3.0	3.2	2.5	2.1	4.8	4.0	5.6	3.8	5.8		
Murshidabad . . . . .	1.6	2.4	2.1	3.1	3.9	3.2	2.1	3.0	2.8	3.9		
Malda . . . . .	2.0	1.6	2.9	1.6	2.9	3.1	2.4	4.3	1.9	3.2		
West Dinajpur . . . . .	1.0	1.8	1.4	1.7	1.6	1.7	2.5	1.5	2.5	1.0		
Jalpaiguri . . . . .	3.7	1.7	1.0	1.0	1.4	1.0	1.3	1.0	1.0	1.0		
Darjeeling . . . . .	3.4	1.0	3.2	2.2	4.3	2.3	6.9	3.9	3.9	1.2		
Cooch Behar . . . . .	..	..	..	..	..	..	..	..	..	..		

TABLE 17.8

## DEATH RATE FROM "CHILD BIRTH" PER 1,000 FEMALE DEATHS FROM ALL CAUSES, 1941-50

	Average for 1941-50	1941	1942	1943	1944	1945
	West Bengal . . . . .	16.5	20.5	20.1	10.0	10.4
Burdwan . . . . .	16.2	20.1	19.5	11.4	8.5	13.9
Birbhum . . . . .	11.0	17.5	19.5	8.2	5.3	9.4
Bankura . . . . .	13.0	18.3	16.9	9.2	7.5	11.3
Midnapur . . . . .	20.3	26.0	22.4	8.9	11.3	18.7
Hooghly . . . . .	11.2	27.1	27.7	18.1	15.1	14.2
Howrah . . . . .	14.2	19.7	15.2	9.9	10.1	11.2
24-Parganas . . . . .	9.9	18.5	17.7	14.2	8.1	13.8
Calcutta . . . . .	11.0	3.5	2.9	1.6	8.9	11.2
Nadia . . . . .	8.3	6.6	4.3	4.2	7.0	11.4
Murshidabad . . . . .	16.8	6.7	9.2	3.6	5.4	8.0
Malda . . . . .	34.0	23.6	36.3	16.4	10.4	12.9
West Dinajpur . . . . .	51.5	35.9	38.0	35.8	22.9	30.5
Jalpaiguri . . . . .	23.8	63.7	57.2	37.3	29.5	38.0
Darjeeling . . . . .	..	23.5	29.2	21.0	18.5	23.0
Cooch Behar . . . . .	..	..	..	..	..	..
	1946	1947	1948	1949	1950	
	19.1	16.6	21.1	22.5	16.7	
Burdwan . . . . .	16.3	17.0	19.6	22.8	16.4	
Birbhum . . . . .	9.8	9.1	15.6	15.0	8.1	
Bankura . . . . .	17.0	13.0	13.3	15.9	11.9	
Midnapur . . . . .	22.8	18.7	22.6	20.5	19.4	
Hooghly . . . . .	20.6	18.5	24.2	23.6	18.1	
Howrah . . . . .	13.8	6.3	10.9	10.4	6.3	
24-Parganas . . . . .	16.4	14.2	17.7	19.3	14.8	
Calcutta . . . . .	15.0	9.1	15.2	17.6	12.1	
Nadia . . . . .	14.3	12.7	23.1	22.4	13.8	
Murshidabad . . . . .	8.3	8.7	16.5	13.0	12.2	
Malda . . . . .	14.3	19.2	19.9	22.9	13.7	
West Dinajpur . . . . .	34.3	35.2	39.4	45.5	29.1	
Jalpaiguri . . . . .	60.7	52.8	62.3	73.2	56.2	
Darjeeling . . . . .	23.4	26.7	24.2	33.6	16.2	
Cooch Behar . . . . .	..	..	..	..	..	









The results were far from satisfactory and the whole question was placed before the Government with the object of improving the existing machinery. But the system continued till the Calcutta Municipal Act was passed in 1889 when the work of registration of vital events was restored to the municipal authorities. The revised Act of 1913 made no change in the administration regarding registration of births and deaths in Calcutta.

So much for Calcutta. It soon appeared that the Sanitary Commissioner was unable to devote sufficient attention to this all-important branch of public health work. The Army Sanitary Commission in England commented very severely on the worthlessness of statistics presented in the Sanitary Commissioner's Report for 1872. The Sanitary Commissioner attributed the failure "mainly to bad agency, and secondly to want of interest on the part of local officers and the consequent absence of the necessary supervisors and urged that a compulsory system of registration should be introduced".

The Bengal Births and Deaths Registration Act (Act IV) was passed in 1873. This Act introduced a dual system which provided for the submission of returns from both "general circles" and "selected circles". The returns for the general circles included the selected circles and related to the whole of Bengal. In the "selected circles" whether urban or rural, a higher degree of accuracy was sought to be obtained by the employment of special agencies under closer supervision. The "special circle" was to serve as an example of the manner in which registration ought to be conducted. In modern parlance it would be regarded as a sample area for quality control. In 1877, this system of selected areas was condemned as costing more than it was worth and it was decided to dispense with all special agencies and to collect vital statistics by the same machinery that was employed in the general circles.

Up to 1875, registration of births was undertaken in "selected circles" covering all but four districts. It was attempted for the first time in "general circles" in 1876 and proved a failure. The experiment was abandoned in 1878. Registration of births continued however in a few selected municipalities and in 1880 it was resumed in all first class municipalities and in certain towns. It was in this year that the Compulsory Vaccination Act was passed. By 1881, the Registration Act was in force in 101 towns. Both births and deaths statistics were quite unreliable, births statistics being more so than deaths. In many of these towns voluntary registration was almost unknown, while prosecutions were inadequate.

In 1886 registration of births was extended and a very important change of system was introduced by the Government transferring the duty of registering both births and deaths in towns to municipal authorities. In many of these towns Act IV of 1873 was actually in force but the local authority had been unwilling to undertake the burden of registration which the police had hitherto borne. In some towns even the registration of vaccination under the Compulsory Vaccination Act (Act V of 1880) was performed by Police. In rural areas the system of registration by the Police of deaths remained unaltered.

The collection and recording of vital statistics, however, continued to be unsatisfactory under municipal authorities. Records of deaths in municipalities appeared indeed to be in many cases less trustworthy than those of the rural circles.

The work of registration was, therefore, with effect from the 1st January, 1892, again transferred to the town police and it was directed that the municipal funds thus set free should be applied to the advancement of primary education. Birth registration through agency of the police was at the same time introduced into rural as well as urban areas. This change-over from the local bodies to the Police seemed to effect an overall improvement in registration. In 1896 there were 527 prosecutions, 2,049 convictions, and Rs. 3,155 in fines were realised.

At this time births and deaths were thus registered through the town or village police all over Bengal except the South Lushai Hills, Chittagong Hill Tracts and the district of Angul. The statistics thus collected were from time to time checked by Magistrates, Subdivisional Officers, Police Officers and the Sanitary Commissioner and his subordinates including the superior officers of the vaccination staff. In 1899, the Government of Bengal passed orders so that station masters of all railway stations within the province but outside the municipal towns should be registrars of births and deaths and be responsible for ascertaining and reporting to the Civil Surgeons of their respective districts all births and deaths occurring on all railway lines and lands (including lands occupied by railway employees, etc., whether within or without the jurisdiction of the railway police). Station masters were to register events and send the return to the Civil Surgeon on the first day of every month. The Civil Surgeon was to show these figures separately in the monthly return and submit it to the Sanitary Commissioner. No change of this system was made for several years. During 1906-09 an experiment was made in the Galsi thana (Burdwan) to test the accuracy of rural registration.

In 1909 the Eastern Bengal and Assam Governments took up the question of improvement of registration in compulsorily notifiable areas. The vaccination staff was to check the statistics and a reward of four annas was paid for every conviction obtained. The results were unsatisfactory and the whole subject was reconsidered in 1912.

The work of registration lay outside the sphere of the ordinary duties of police, the public disliked going to the thana to report vital occurrences and the work of the police was not directly under the Sanitary Department. For these reasons, with the almost unanimous approval of district officers, registration was again transferred to the municipal authorities on the 1st April, 1913.

In 1916 the health officers of municipalities were made responsible for all round improvement of the registration of vital events and in the next year the Registration Act was extended to the Asansol Mining Settlement. In 1925 station masters of railway stations within a town were made reporters of births and deaths and required to submit their returns to the municipal registrar. In 1929 medical officers of hospitals situated in towns were asked to report births and deaths occurring within hospitals to municipal registrars. The above system of registration was followed in all municipalities and there has been no major change on this point in urban areas of the State.

For the rural areas the work of registration in 1913 was transferred in two subdivisions (Kalna and Chandpur) to the chaukidari panchayets to be assisted by munshi chaukidars and in 1915 this system was extended to Bogra and to the Lalbagh Subdivision. There were thus in 1915 four agencies in Bengal for the registration of vital occurrences, viz.—

- (1) the Police and the village chaukidar (in most rural areas);
- (2) the panchayets with their munshi chaukidars (in certain selected rural areas);
- (3) the municipal staff (in urban areas) and
- (4) the station master of the railway station outside municipal towns.

The above system continued till 1926 when thana health circles were established. Health Officers were appointed for each district and sanitary inspectors for public health circles. This procedure became necessary as Civil Surgeons could not cope with the work of public health as well as medical duties and, therefore, the public health portion was transferred from the Civil Surgeon to the District Health Officer. The Bengal Births and Deaths-Registration Act, 1873 was now extended to all rural areas in Bengal. Every district was divided into a suitable number of registration units, such as union boards, panchayeti unions, railway stations and thanas. The work of registration was gradually transferred from the police to the hands of local bodies. Presidents of union boards, panchayeti unions, station masters and thana officers were by the District Magistrate appointed local registrars of births and deaths for their respective areas. Every village chaukidar was required to report at the local police station, chaukidari union or union board office, all births and deaths occurring within his beat. Vital statistics were compiled according to the date of occurrence and regionally by thanas and not by subdivisions. The following sequence of dates was prescribed for the submission of vital statistics from one agency to the next:—

**(A) District Boards**

- (i) Chaukidars to the local registrars—  
7th day of the succeeding month.
- (ii) Local registrars to Subdivisional Officer—  
Not later than the 12th day of the succeeding month.
- (iii) Subdivisional Officers to District Health Officer—  
Not later than the 15th day of the succeeding month.
- (iv) District Health Officers to Director of Public Health—  
Not later than the 20th day of the succeeding month. The submission of district returns through Civil Surgeons was discontinued in 1928.

**(B) Municipalities**

The Municipal Health Officer, or the Municipal Chairman as the case may be, should forward the returns direct to District Health Officers and not to Subdivisional Officers or Civil Surgeons.

Where the local registrars were thana officers, the dafadars were required to collect the chaukidars' hath-chittas and hand them in at the first weekly parade of

the month which the thana officer was required to attend. All registers of births and deaths were preserved in the district room only for a period of thirty years.

Local authorities were entitled to charge for supplying copies of entries in the registers of births and deaths a fee of four annas for each extract in rural areas and eight annas in town. Registers and forms were supplied by Government free of cost. Thana and Circle Officers drew up estimates of annual requirements and sent them to their Subdivisional Officers for transmission to the District Health Officer who distributed the forms on indent from the Forms Department. A chaukidar used Form No. 2990 for births, No. 2998 for deaths and No. 3014 for Epidemic diseases. Bengal Form Nos. 2993 and 2999 were used by local registrars for birth and death registration respectively. Bengal Form No. 2996 was used by Local Registrars for supplying monthly returns and similarly Bengal Form No. 2997 was used by Subdivisional Officers and District Health Officer. For the prompt notification to the Ministry of Health in England of the prevalence of certain epidemic diseases every Tuesday, an innovation was introduced in 1920 requiring a telegraphic summary of the main features relating to the prevalence of plague, small-pox, cholera, influenza in Bengal during the week ending the previous Saturday. This information was supplied to the Government of India by the Director of Public Health. The District Health Officer collected such reports both from urban and rural areas and sent them to the Director of Public Health for the purpose. Incidentally, in 1894 Civil Surgeons used to notify any outbreak or existence of epidemic diseases in their district to their colleagues of neighbouring districts and the system of inter-provincial exchange of epidemic information was introduced in 1922 but since 1926 these functions were assumed by the District Health Officer.

But the compilation of vital statistics caused delay under the system and the matter was discussed at the Divisional Commissioners' Conference in 1931. A new system was adopted in some districts for trial so that registrars were required to submit their monthly returns of births and deaths direct to Sanitary Inspectors who compiled statistics for the thana and forwarded it direct to the District Health Officer and not through the Subdivisional Officer. The dates of submission of vital statistics by one agency to the other were as follows:—

- |   |  |
|---|--|
| (a) By chaukidar to local registrars.   | 7th day of the succeeding month.                 |
| (b) By registrars to the Subdivisional Officer or Sanitary Inspectors as the case may be. | Not later than 12th day of the succeeding month. |
| (c) By Subdivisional Officer or Sanitary Inspector to District Health Officer.            | Not later than 17th day of the succeeding month. |
| (d) By District Health Officer to Director of Public Health.                              | Not later than 23rd day of the succeeding month. |

In the case of municipalities, the monthly vital statistical returns were to be submitted to the District Health Officer not later than the 15th day of the succeeding month. This system continued up to 1943.

After the appointment of Sanitary Inspectors to health circles, local registrars in 1939 were required

to supply every month to Sanitary Inspectors information regarding all births and deaths. This was considered necessary to enable Sanitary Inspectors properly to look after the Sanitary measures of their area. To enable District Magistrates to exercise control over the working of the Bengal Births and Deaths Registration Act in municipal and rural areas, District Magistrates were required to send quarterly reports showing the number of prosecutions, number of convictions, fines realised, etc., under the Act to the Director of Public Health. As a consequence the supervision of the Registration Act seemed to improve in this period.

Ever since the introduction of the system under which the responsibility of registering births and deaths was

**Registration transferred from union president to thana Sanitary Inspector 1944**

placed upon Presidents of Union Boards, there were repeated complaints that vital statistics were late in reaching the Director of Public Health leading to delay in submitting the

provincial report to the Public Health Commissioner with the Government of India. As Presidents held office in an honorary capacity and for one reason or another were often absent from their unions, the system was considered unsatisfactory. Under orders of the Government, dated the 4th January, 1944, District Magistrates were instructed to cancel the appointment of Presidents of Union Boards as registrars of births and deaths and to appoint the Thana Sanitary Inspectors in their place. The Sanitary Inspectors were asked to attend the fortnightly parades of chaukidars at the thana and take the figures of births and deaths direct from the hathchittas of chaukidars and at once compile the list and forward it to the District Health Officer. As both the Sanitary Inspector and District Health Officer were officers of the Public Health Organisation, they could see that vital statistics returns were compiled and forwarded regularly and punctually thus effecting a considerable saving of time. This change was introduced with immediate effect. Later in July 1945, an additional health assistant was sanctioned to 11 Sanitary Inspectors to help them in compiling vital statistics.

Famine and epidemic had prevailed all over Bengal in 1943. It was the delay in submitting figures to White Hall in 1943 from the former agencies that this change from Union Presidents to Thana Sanitary Inspectors was made. Though the returns were received earlier, they became less representative of the area, as the population of the new registration district increased ten times approximately. Some army Subdivisional Health Officers were appointed at subdivisional headquarters for the control of epidemics and later the Government decided to place each subdivision under a Health Officer as "Subdivisional Health Officer". The Subdivisional Health Officers in addition to their public health duties, supervised the work of registration of vital statistics and were responsible for the normal administration of vital statistics registration of the area. In 1945, detailed instruction in connection with the registration work were issued by the Government to the local registrars, i.e., Thana Sanitary Inspectors for their guidance.

After 1947, all subdivisions were provided with Subdivisional Health Officers and a scheme for rural health centres was started. So far 103 union health centres have been created and it has been proposed that the Rural Medical Officer of Health will be the registrar of births and deaths for the union where the Union Health Centre is opened. In 1948 a pilot survey to determine the extent of incompleteness of registration of births and deaths was undertaken and its results were published in a Vital Statistics Special Report. A

summary of the Report and its conclusions is printed as an Appendix in this volume.

The existing method of registration and compilation of births and deaths in the State of West Bengal is as follows:—

#### A—Registration

Throughout the State of West Bengal except the district of Cooch Behar the registration of births and deaths within eight days of their

**Legislation** date of occurrence is compulsory and it is administered in different areas according to the Act as mentioned below:—

In rural areas . . . .	Bengal Births and Deaths Registration Act of 1873.
Urban areas (except Calcutta & Howrah).	Bengal Births and Deaths Registration Act and Bengal Municipal Act of 1932 and rules issued thereunder.
City of Calcutta and Howrah.	Calcutta Municipal Act of 1951.
Cantonment areas . . . .	Cantonment Acts and Byelaws issued thereunder.

(i) **Urban areas**—In the municipalities (including Calcutta) municipal authorities are responsible for the efficient management of registration of vital events. Registrars

**Agency** of Births and Deaths are appointed by the Municipal Commissioners in Municipalities and by the Health Officer in Calcutta for the purpose. The father or mother is primarily responsible for reporting births and other persons who are required to report are the occupiers of the building in which such child is born, the medical practitioner or the midwife. In case of death it should be done by the nearest relatives present at the time of death or in attendance during the last illness of the deceased or in absence of such relation the medical practitioner if any, who attended during the last illness. In the municipalities which have no registrars of deaths at burning ghats or burial grounds, the fuel contractors, ghat priests and doms of the burning ghats and munshis of burial grounds are to report deaths to the registrars periodically. Station Masters of railway areas within municipalities are responsible for reporting vital events occurring within their areas. The family is primarily responsible for reporting births and deaths in the municipal areas including Calcutta.

(ii) **Rural areas**—In rural areas village chaukidars are reporters of births and deaths occurring within their beats. They are provided with a double set of hathchittas of births and deaths for collection of village statistics. If they are illiterate (as they generally are) they may have the entries made by any literate person of the locality. The dafadars of the union collect one set of hathchittas of births and deaths from all chaukidars of the union and submit them at their weekly parades at Thana to the Sanitary Inspectors of Thanas who are the Registrars of Births and Deaths for the Thana areas. The Sanitary Inspector with a health assistant attends parades of dafadars at the thana and collects one set of hathchittas from the dafadars and retains the same for the purpose of registration; the other set of hathchittas is handed over to the dafadar for distribution amongst the chaukidars concerned for the purpose of collection of vital statistics, in the subsequent week.

The above procedure is not applicable in the Darjeeling district. In this district, the Thana Officers are Registrars of Births and Deaths and village mandals

or headmen are responsible for reporting births and deaths occurring within their beats.

(iii) **Other areas**—Managers of tea gardens, medical officers of hospitals, authorities of factories and mills outside the jurisdiction of unions, municipalities and cantonments and officers in charge of forests are responsible for reporting births and deaths occurring within their respective areas.

Railway Station Masters are responsible for collection and registration of vital events occurring within their areas.

In cantonments the Executive Officer is responsible for registration.

### B—Compilation

In urban areas, the municipal registrars of births and deaths compile the monthly vital statistical returns and submit the same to the District Health Officer by the 15th of the succeeding month for inclusion in the district return.

2. In rural areas the procedure for compilation and transmission of vital statistical returns is as follows :—

(a) The local thana registrars of births and deaths collect reports of births and deaths from all reporting agencies and from railway station masters within their respective jurisdictions and compile a return of the police station and submit the same to the District Health Officer by the 10th of the succeeding month.

(b) Executive Officers of Cantonments compile monthly returns of their areas and submit them to District Health Officers.

3. District Health Officers compile monthly vital statistical returns of their districts showing figures of municipalities and rural thanas separately therein, and submit them to the Directorate of Health Services where district and State figures are compiled in permanent records.

4. The final figures of the State and towns with populations of 30,000 and over are sent to the Director

General of Health Services with the Government of India.

A permanent Census Act was passed in 1948 and the post of a Registrar General and Ex-Officio Census Commissioner has been created to deal with population censuses and vital statistics under a single organisation of the Central Government. Accordingly, the subject of vital statistics including registration of births and deaths has been included in the concurrent legislative list. A new era in vital statistics registration is thus expected to follow.

A table showing the nature of information collected since the beginning is annexed. This note may conclude with the recommendations made by W. Goode, Secretary in 1919 of the Local Self Government and Medical Public Health Department of the Government of Bengal, quoted below :

"The committee has already decided to recommend that the central organisation for controlling registration and collating and utilization of the data it furnishes should be strengthened. It suggests that a Deputy Sanitary Commissioner should be placed in charge of this work ; constituting with his office a separate branch of the Public Health Department. It is outside the province of the Committee to make proposals for the improvement of the local registering agency. The history of registration in Bengal indicates the difficulties with which the whole question is beset. The Sanitary Commissioner has pointed out that the system under which local bodies are constituted by the registering authorities for their local areas is unsound in as much as vital statistics supply the facts by which these Sanitary Administrators must be judged. It will however be for the new Central Branch which the committee suggests should be created to examine the working of the local agency on which it will depend for its material and to make proposals to Government for its improvement. It can hardly be doubted that the history of registration in Bengal justifies the committee's proposals to create a separate branch for vital statistics in the new Public Health Department."

### APPENDIX B

Extracts from pages 47-49 of the Report of a Pilot Survey held in the districts of Burdwan, Bankura, Nadia, 24-Parganas, Malda and Darjeeling in the year 1948 by Dr. P. G. Choudhury and published by the West Bengal Government in 1952

**Summary and conclusions**—The work of registration though a statutory duty of the Government is administered by local bodies and from the results of the survey it has been found to be utterly defective, inaccurate and unproductive. Omission in the registration of births and deaths is more than 50 per cent. and about 22 per cent. of the registered events cannot be traced or verified.

It has further been observed that the data compiled in the Central Office for the purpose of analysis and publication, etc., do not tally even

with those in the original registers. Discrepancies between the figures of the register and the return are about  $\pm 5.06$  per cent. Moreover the returns are neither representative of the area and month in question nor contain all the information available in the original register. And whatever is available, reaches this office three to four months after its due date laden with mistakes.

The registration of vital statistics was enforced by the Bengal Births and Deaths Registration Act of 1873, but the desired improvement has not yet been obtained owing to inherent defects in the system.

**Reasons why errors are not eliminated**—A Police Station with an average population of 100,000 and an area of 100 sq. miles is the present registration district in rural areas. This area is too big and unmanageable even for several whole-time registrars but

the work is entrusted to a part-time officer. The present registrar has to perform this work in addition to other more arduous official duties. The registration office is too far away for the majority of the people and as a result neither the people can report personally nor can the chaukidars attend office regularly. In fact, the work of registration has deteriorated since 1944 when it was transferred from Union Boards to Police Stations.

Although the reporting of vital events is a primary duty of the people, yet they are quite ignorant of this fact. Nothing has been done so far to make the people alive to their responsibility. As a result people seldom report births and deaths for registration. Moreover there is very little utilisation of birth and death certificates by the people, nor has the State yet enforced any of these measures. People are not punished for non-registration even if their negligence is brought to the notice of the law. Not even Rs. 100 is realised either from certificate fee or from prosecution of delinquents while the Government spends about Rs. 1.55 lacs every year which serves little useful purpose and is nearly all wasted.

In the rural areas, chaukidars are entrusted with reporting vital statistics. But these chaukidars are illiterate and ill paid and can hardly report cause of death and age at death correctly.

They have neither the training nor the incentive to do their work properly and consequently they do not pay any attention to its improvement.

In urban areas too, registration does not receive proper attention. The municipal authorities have no reporting agency and have to depend entirely on the apathetic public for this purpose. Consequently, the vital statistics of towns have been found, in course of the survey, to be more defective than those of rural areas.

Vital statistics of this province are at present compiled at three stages namely the thana, the district and the capital and at every stage some errors creep in. As a result, the figures published from the provincial capital do not tally with those in the original registers.

Vital statistics will not improve so long as the above-mentioned defects in the present system of registration are not removed and the agencies for registration and reporting are changed or at least specially trained and paid for the work so that they may take more interest in its improvement. The following measures are therefore recommended for immediate adoption:—

The present registration unit which is too big and unmanageable should be reduced in size and the union may therefore be restored as a registration unit. **Measures suggested for their remedy** The union clerk may be appointed as registrar of births and deaths and for this extra work paid an additional remuneration of Rs. 5 per month by the Government. The total cost will be Rs. 1,24,000 per year for 2,070 unions instead of Rs. 1,13,000 spent by the Government over additional health assistants at Police Stations. This contribution to unions will be made on the specific condition that unions will try to effect all round improvements and chiefly punctual submission of accurate vital statistics. Registration work will be transferred from union clerks to Rural Medical Officers of Union Health Centres as the latter are started. The above expenditure of Rs. 1,24,000 will thus ultimately be saved.

The chairman of a municipality may appoint a registrar of births and deaths and the person concerned may be paid a sum of Rs. 5 per month and the total cost for the purpose will be Rs. 4,500 for 75 municipalities. The sum will be contributed to the municipal fund on the same condition as suggested in the case of unions.

It is true that vital statistics cannot improve and complete collection of statistics will not be possible unless people themselves take interest and report vital events to reporters or registrars of their own accord. Measures should, therefore, be adopted to punish people under the law for failing to report vital events and steps should be taken to utilise birth and death certificates for proof of age, nationality, citizenship, succession to property, insurance money, etc., etc. This will lend importance to registration of births and deaths in the eyes of the public and they will then be anxious to register births and deaths. Accordingly, a proposal for introduction of birth certificates as evidence of age of all new entrants to school from January 1950 has been submitted to the Government. This will fetch an annual revenue of Rs. 2.91 lacs approximately and the estimated cost of the scheme will be Rs. 38,080 only.

Tax Collectors may be appointed as reporters of births and deaths in municipalities. These tax collectors and chaukidars may be trained in vital statistics and the best workers may be rewarded. This will provide an incentive to them. A reward fund for the purpose may be opened in each district under the control of the district officers out of the prosecution fees realised. It is proposed that whoever (chaukidars or Tax Collector) will detect omission in registration of births and deaths will receive a reward of eight annas per successful case of prosecution. The reward may be increased to Rs. 4, when the fine imposed under sections 7 and 8 of the Bengal Births and Deaths Registration Act will be enhanced to Rs. 25. This enhancement is necessary to meet the cost of prosecution. This reward will be given to reporters provided that they collect records of more vital events than the average. If each and every delinquent is thus punished, a sum of Rs. 1.6 million approximately will be realised as fine every year and Rs. 400,000 may go as reward to reporters whose total strength has been estimated to be 30,000 chaukidars and 352 Tax Collectors. Each reporter may thus get a sum of Rs. 13 per year.

The supervision of the work of registration at the periphery regarding verification, omission, issue of certificates and prosecutions, etc., will be entrusted to specially appointed Inspectors of Registration and six such Inspectors are considered to be essential to start with.

Burial and burning without registration should be forbidden at least in all towns. In pursuance of sections 435-439 of the Bengal Municipal Act all burial grounds and burning ghats in towns should be registered and provided with keepers who will report particulars of death, in respect of the bodies disposed of, to the local registrars.

Only in Darjeeling district, the registration unit may remain as it now exists and the case may be taken up later.

To eradicate the defects in the present system of compilation, the Central Compilation Scheme may be introduced. This will eliminate all intermediate compilation at thanas and districts. The scheme may work as under. The existing forms of birth and death registers should be revised. Local Registrars will register each and every event either reported by official reporters or by parties and send counterfoils of each individual registered event to the Central Office every month. These slips will be tabulated with the help of calculating machines and kept systematically for issue of certificates to persons on demand. There will thus be no loss of information and no error in compilation and moreover the preservation of records will be possible at the Central Office. The records also will thus be available at the Central Office for issue of certificate as proposed. The Central Office will be the Provincial Registration Office like that of Somerset House in England and Wales and will be located in some prominent house in the city.

It is further proposed that to assess improvement in registration, a sample survey like that of the present one may be undertaken every year.

The present state of vital statistics is so defective that neither any scientific research nor any effective health planning can be undertaken on their basis.

Table 1

Births by unions, thanas and towns: comparison between the 1948 survey figures and those recorded in the original official registers

District and Police Station	Unions	Births regd. 1948	Births verified	Percent of verified over regd.	Total births occurred in 1948 as detected during survey	Percent omission over total detection	Percent of detection over regd.
District Bardwan—P. S. Katus	1 Kashigram . . . . .	258	244	94.6	365	33.2	141.5
	2 Khajurdihi . . . . .	181	159	87.8	229	30.6	126.3
	3 Srikhanda . . . . .	210	179	85.3	274	34.7	130.5
	4 Alampur . . . . .	199	164	82.4	251	34.7	126.1
	5 Gidhgram . . . . .	211	179	84.8	304	41.1	144.1
	6 Karui . . . . .	191	174	91.1	255	31.8	133.5
	7 Karajgram . . . . .	214	179	83.6	289	38.1	135.0
	8 Sribati . . . . .	212	195	91.9	302	35.4	142.4
	9 Singhi . . . . .	175	160	91.5	224	28.6	128.0
	10 Agradwip . . . . .	162	143	88.3	285	49.8	176.9
	11 Jagadanandapur . . . . .	175	153	87.4	261	41.4	149.1
	<b>TOTAL</b>	<b>2,188</b>	<b>1,929</b>	<b>88.2</b>	<b>3,039</b>	<b>36.5</b>	<b>138.9</b>
District Bankura— P. S. Sonamukhi	1 Manikbazar . . . . .	84	75	89.3	99	24.2	117.9
	2 Hamirhati . . . . .	80	76	95.0	91	16.5	113.8
	3 Pearbera . . . . .	92	81	88.0	126	35.7	136.9
	4 Dhulai . . . . .	147	135	91.8	184	26.6	125.2
	5 Kochdihi . . . . .	121	108	89.3	184	41.3	152.1
	6 Nabason . . . . .	128	128	100.0	164	22.0	128.1
	7 Dihipara . . . . .	138	131	94.9	168	22.0	121.7
	8 Dhansimla . . . . .	91	83	91.2	108	23.1	118.7
	9 Panchal . . . . .	78	68	87.2	120	43.3	153.8
	10 Radhamohanpur . . . . .	171	170	99.4	235	27.7	137.4
	<b>TOTAL</b>	<b>1,130</b>	<b>1,055</b>	<b>93.1</b>	<b>1,479</b>	<b>28.3</b>	<b>130.9</b>
24-Parganas—P. S. Basirhat	1 Ghorarash . . . . .	249	210	84.3	322	34.8	129.3
	2 Dhanyakuria . . . . .	231	201	87.0	452	55.5	195.7
	3 Chaita . . . . .	226	201	88.9	410	51.0	181.4
	4 Champapukur . . . . .	356	286	80.3	510	43.9	143.3
	5 Sangrapur . . . . .	124	108	87.1	290	62.8	233.9
	6 Sankchura . . . . .	203	137	67.5	384	64.3	189.2
	7 Itinda . . . . .	282	215	76.2	525	59.0	186.2
	8 Pifa . . . . .	271	253	93.4	523	51.6	193.0
	<b>TOTAL</b>	<b>1,942</b>	<b>1,611</b>	<b>83.0</b>	<b>3,416</b>	<b>52.8</b>	<b>175.9</b>
District Nadia—P. S. Nabadwip	1 Bablari . . . . .	136	67	49.3	166	59.6	122.0
	2 Swarupganj . . . . .	208	53	25.5	301	82.4	144.7
	3 Mayapur . . . . .	194	72	37.1	357	79.8	184.0
	<b>TOTAL</b>	<b>538</b>	<b>192</b>	<b>35.7</b>	<b>824</b>	<b>76.7</b>	<b>153.2</b>
District Malda— P. S. English Bazar	1 Milki . . . . .	529	375	70.9	700	46.4	132.3
	2 Kazigram . . . . .	196	152	77.6	199	23.6	101.5
	3 Jodupur . . . . .	123	58	47.2	142	59.2	115.4
	4 Amriti . . . . .	297	199	67.0	338	41.1	113.8
	5 Narhata . . . . .	178	126	70.8	213	40.8	119.7
	6 Mahadipur . . . . .	143	78	54.5	183	57.4	128.0
	7 Kotwali . . . . .	148	69	46.6	151	54.3	102.0
	<b>TOTAL</b>	<b>1,614</b>	<b>1,057</b>	<b>65.5</b>	<b>1,926</b>	<b>45.1</b>	<b>119.3</b>
<i>Towns</i>							
District Bardwan . . . . .	Katwa . . . . .	70	56	80.0	292	80.8	417.1
District 24-Parganas . . . . .	Joyndagar-Mazilpur . . . . .	270	246	91.1	442	44.3	163.7
	Halisahar . . . . .	166	94	50.5	522	82.0	280.6

Table 1—concl'd.

*Births by unions, thanas and towns: comparison between the 1948 survey figures and those recorded in the original official registers*

District and Police Station	Unions	Births regd. 1948	Births verified	Percent of verified over regd.	Total births occurred in 1948 as detected during survey	Percent of omission over total detection	Percent of detection over regd.
<i>Towns—contd.</i>							
District Darjeeling	Kurseong	237	94	39.7	542	82.7	228.7
	URBAN TOTAL	763	490	64.2	1,798	72.7	235.6
	RURAL TOTAL	7,412	5,844	78.8	10,684	45.3	144.1
	GRAND TOTAL	8,175	6,334	77.5	12,482	49.3	152.7
DUPLICATE SURVEY							
District Nadia—P. S. Nabadwip	Unions						
	1 Bablari	136	64	47.1	176	63.6	129.4
	2 Swarupganj	206	57	27.7	319	82.1	154.9
	3 Mayapur	194	66	34.0	308	78.6	158.8
	TOTAL	536	187	34.9	803	76.7	149.8

Table 2

*Deaths by unions, thanas and towns: comparison between the 1948 survey figures and those recorded in the original official registers*

District and Police Station	Unions	Deaths regd. 1948	Deaths verified	Percent of verified over regd.	Total Deaths occurred in 1948 as detected during survey	Percent of omission over total detection	Percent of detection over regd.
District Burdwan—P. S. Katwa	1 Kasigram	320	302	94.4	430	29.8	134.4
	2 Khajurdihi	183	161	98.0	211	23.7	115.3
	3 Srikhanda	188	159	84.6	264	39.8	140.4
	4 Alampur	184	151	82.1	227	33.5	123.4
	5 Gidhgram	275	253	92.0	404	37.4	146.9
	6 Karui	141	132	93.6	210	37.1	148.9
	7 Karajgram	190	161	84.7	245	34.3	128.9
	8 Sribati	247	231	93.5	303	23.8	122.7
	9 Singhi	201	183	91.0	235	22.1	116.9
	10 Agradwip	181	155	85.6	211	26.5	116.6
	11 Jagadanandapur	148	139	93.9	220	36.8	148.6
	TOTAL	2,258	2,027	89.8	2,960	31.5	131.1
District Bankura—P. S. Sonamukhi	1 Manikbazar	89	79	88.7	102	22.5	114.6
	2 Hamirhati	111	99	89.2	117	15.4	105.4
	3 Pearbera	86	84	97.7	147	42.9	170.9
	4 Dhulai	157	154	98.1	200	25.0	127.4
	5 Kochdihi	112	100	89.3	157	36.3	140.2
	6 Nabason	125	124	99.2	166	25.3	132.8
	7 Dihipara	123	102	82.9	131	22.1	106.5
	8 Dhansimla	81	72	88.9	89	19.1	109.9
	9 Panchal	82	73	89.0	111	34.2	135.4
	10 Radhamohanpur	143	124	86.7	166	25.3	116.1
	TOTAL	1,109	1,011	91.2	1,386	27.1	125.0



Table 2—concl'd.

Deaths by unions, thanas and towns: comparison between the 1948 survey figures and those recorded in the original official registers

District and Police Station	Unions	Deaths regd. 1948	Deaths verified	Percent of verified over regd.	Total deaths occurred in 1948 as detected during survey	Percent of omission over total detection	Percent of detection over regd.
District 24-Parganas— P. S. Basirhat	1 Ghorarash . . . . .	181	156	86.2	222	29.7	122.7
	2 Dhanyakuria . . . . .	239	202	84.5	370	45.4	154.8
	3 Chaita . . . . .	207	169	81.6	305	44.6	147.3
	4 Champapukur . . . . .	249	197	79.1	298	33.9	120.0
	5 Sangrampur . . . . .	80	57	71.3	152	62.5	190.0
	6 Sankehura . . . . .	168	121	72.0	232	47.8	138.1
	7 Itinda . . . . .	203	148	72.9	329	55.0	162.1
	8 Pifa . . . . .	205	175	85.4	334	47.6	162.9
	<b>TOTAL</b>		<b>1,532</b>	<b>1,225</b>	<b>80.0</b>	<b>2,242</b>	<b>45.4</b>
District Nadia—P. S. Nabadwip	1 Bablari . . . . .	76	24	31.6	108	77.8	142.1
	2 Swarupganj . . . . .	183	31	16.9	251	87.6	137.2
	3 Mayapur . . . . .	160	68	42.5	223	69.5	139.4
	<b>TOTAL</b>	<b>419</b>	<b>123</b>	<b>29.4</b>	<b>582</b>	<b>78.9</b>	<b>139.0</b>
District Malda—P. S. English Bazar	1 Milki . . . . .	202	150	74.3	235	36.2	116.3
	2 Kazigram . . . . .	122	87	71.3	115	24.3	94.3
	3 Jodupur . . . . .	112	60	53.6	141	57.4	125.9
	4 Amriti . . . . .	140	95	67.9	157	39.5	112.1
	5 Narhata . . . . .	86	46	53.5	66	30.3	76.7
	6 Mahadipur . . . . .	68	40	58.8	130	69.2	191.2
	7 Kotwali . . . . .	74	37	50.0	70	47.1	94.6
	<b>TOTAL</b>	<b>804</b>	<b>515</b>	<b>64.1</b>	<b>914</b>	<b>43.7</b>	<b>113.7</b>
<i>Towns</i>							
District Burdwan . . . . .	Katwa . . . . .	243	184	75.7	300	38.7	123.5
District 24-Parganas . . . . .	Joynagar-Mazilpur . . . . .	94	83	88.3	196	57.7	208.5
	Halisahar . . . . .	102	43	42.2	314	86.3	307.8
District Darjeeling . . . . .	Kurseong . . . . .	255	82	32.2	324	74.7	127.1
	<b>URBAN TOTAL</b>	<b>694</b>	<b>392</b>	<b>56.5</b>	<b>1,134</b>	<b>65.4</b>	<b>163.4</b>
	<b>RURAL TOTAL</b>	<b>6,122</b>	<b>4,901</b>	<b>80.1</b>	<b>8,084</b>	<b>39.4</b>	<b>132.0</b>
	<b>GRAND TOTAL</b>	<b>6,816</b>	<b>5,293</b>	<b>77.7</b>	<b>9,218</b>	<b>42.6</b>	<b>135.2</b>
<i>Unions</i>							
DUPLICATE SURVEY							
District Nadia—P. S. Nabadwip	1 Bablari . . . . .	76	24	31.6	124	80.6	163.2
	2 Swarupganj . . . . .	183	35	19.1	265	86.8	144.8
	3 Mayapur . . . . .	108	47	43.5	163	71.2	150.9
	<b>TOTAL</b>	<b>367</b>	<b>106</b>	<b>28.9</b>	<b>552</b>	<b>80.8</b>	<b>150.4</b>

Table 3

Table showing the number of events as per the 1948 Survey, Registers and returns with their respective percentages over the total detection during 1948

Police Station or Town	BIRTHS					DEATHS					STILL BIRTHS				
	Survey	Original Register	Percent to total detection	District vital return	Percent to total detection	Survey	Original Register	Percent to total detection	District vital return	Percent to total detection	Survey	Original Register	Percent to total detection	District vital return	Percent to total detection
1 Katwa P. S. . . .	3,039	2,188	72.0	1,881	61.9	2,960	2,258	76.3	1,695	57.3	83	44	53.0	47	56.6
2 Sonamukhi P. S. . .	1,479	1,130	76.4	1,132	76.5	1,386	1,109	80.0	1,111	80.2	152	40	26.3	21	13.8
3 Basirhat P. S. . . .	3,416	1,942	56.9	1,935	56.6	2,242	1,532	68.3	1,532	68.3	96	54	56.3	55	57.3
4 Nabadwip P. S. . . .	824	538	65.3	507	61.5	582	419	72.0	418	71.8	2	..	..	..	..
5 English Bazar P. S. . .	1,926	1,614	83.8	1,615	83.9	914	804	88.0	842	92.1	54	40	74.1	45	83.3
6 Katwa Town . . . .	292	70	24.0	66	22.6	300	243	81.0	245	81.7	..	..	..	1	..
7 Joynagar-Mazilpur Town	442	270	61.1	249	56.3	196	94	48.0	93	47.4	13	..	..	..	..
8 Halisahar Town . . .	522	186	35.6	171	32.8	314	102	32.5	96	30.6	13	..	..	..	..
9 Kurseong Town . . . .	542	237	43.7	217	40.0	324	255	78.7	264	81.5	14	27	192.9	28	200.0
URBAN TOTAL . . . .	1,798	763	42.4	703	39.1	1,134	694	61.2	698	61.6	40	27	67.5	29	72.5
RURAL TOTAL . . . .	10,684	7,412	69.4	7,070	66.2	8,084	6,122	75.7	5,598	69.2	387	178	46.0	168	43.4
GRAND TOTAL . . . .	12,482	8,175	65.5	7,773	62.3	9,218	6,816	73.9	6,296	68.3	427	205	48.0	197	46.1

**Table 4**  
*Estimates of total Births, Deaths, Infant mortality and Deaths from Cholera and Malaria for 1948*

	Figures recorded for Police Station, Union as per		Mean ratio of total number as enumerated at the survey to the corresponding figures under the existing system	Standard error of the mean ratio	Provincial figures for 1948	
	Existing system	Survey			Under the existing system in lacs	Estimates in lacs
Births . . . . .	7,773	12,482	1.6058	0.1196	4.53564	7.3 ± 0.64
Deaths . . . . .	6,296	9,218	1.4641	0.2756	3.85270	5.6 ± 1.06
Infant mortality . . . . .	1,038	2,004	1.9306	0.2291	0.61990	1.2 ± 0.14
Death from Cholera . . . . .	246	476	1.9350	0.1045	0.13798	0.3 ± 0.01
Death from Malaria . . . . .	1,410	1,663	1.1794	0.4849	0.76876	0.9 ± 0.37

### APPENDIX C

#### BENGAL ACT IV OF 1873

#### (THE BENGAL BIRTHS AND DEATHS REGISTRATION ACT, 1873<sup>1</sup>)

As modified up to the 1st March 1932

(2nd July, 1873.)

#### AN ACT FOR REGISTERING BIRTHS AND DEATHS

**Preamble** Whereas it is expedient to provide the means for a complete register of births and deaths.

For power to make rules as to the registration of births and deaths in Cantonments, see the Cantonments Act, 1924 (II of 1924), s. 282 (1).

**SHORT TITLE**—This short title was given by the Amending Act, 1903 (I of 1903), Sch. I, printed in the Bengal Code, Ed. 1913-1915, Vol. I, p. 738.

As to the voluntary registration of births and deaths, see the Births, Deaths and Marriages Registration Act, 1886 (VI of 1886), in Vol. II of the General Acts, 1873-86, 5th edition, p. 483.

**LOCAL EXTENT**—Since this Act contains no local extent clause, it must be taken to have been intended to extend to the whole of the former Province of Bengal; but it applies only to areas specially notified under s. 1.

As to the transmission to the Registrar-General of Births and Deaths in England of registers of, or documents showing, births and deaths of officers and soldiers and their families abroad, see the Registration of Births, Deaths and Marriages (Army) Act, 1879 (42 and 43 Vict., c. 8), in the Collection of Statutes relating to India, Vol. I, Ed. 1913, p. 530.

The application of the Act is barred in the Chittagong Hill-tracts by the Chittagong Hill-tracts Regulation, 1900 (I of 1900), s. 4 (2), printed in the Bengal Code, Ed. 1913-1915, Vol. I, p. 790.

As to the duties of Registrars of Births in connection with the vaccination of children, see the Bengal Vaccination Act, 1880 (Ben. Act V of 1880), ss. 18 to 24, printed in the Bengal Code, Ed. 1913-1915, Vol. II, pp. 475 and 476.

**OTHER ENACTMENTS**—As to the registration of births and deaths, under the present Act, in Provincial Municipalities, see the Bengal Municipal Act, 1884 (Ben. Act III of 1884), Pt. XI, printed in the Bengal Code, Ed. 1913-1915, Vol. II, p. 845.

(Sections 1-4)

As to the registration of births and deaths in the Calcutta Municipality, see the Calcutta Municipal Act, 1923 (Ben. Act III of 1923), Ch. XXXI, printed in the supplement to the fourth edition of the Bengal Code, p. 633.

It is hereby enacted as follows:—

As to the registration of births and deaths under the Bengal Local Self-Government Act of 1885 (Ben. Act III of 1885), see s. 114 of that Act, printed in the Bengal Code, Ed. 1913-1915, Vol. II, p. 953.

1. The Lieutenant-Governor<sup>1</sup> may at any time, by a notification<sup>2</sup> published in *Calcutta Gazette*, direct that all births and deaths, or all births or all deaths, occurring within the limits of any area and after a certain date to be named in such notification shall be registered, and for that purpose may define the limits of such area.

As to reports by village *chaukidars* of births and deaths, see the Village *Chaukidari* Act, 1870 (Ben. Act VI of 1870), s. 39, cl. 7th, printed in the Bengal Code, Ed. 1913-1915, Vol. II, p. 183.

<sup>1</sup> Now the Governor in Council of Fort William in Bengal—see the Bengal, Bihar and Orissa and Assam Laws Act, 1912 (VII of 1912), s. 3, and Sch. D, items 1 and 2, printed in the Bengal Code, Ed. 1913-1915, Vol. I, p. 776.

As to registration of births and deaths under the Bengal Village Self-Government Act, 1919 (Ben. Act V of 1919), see s. 26 (3) of that Act, printed in the supplement to the fourth edition of the Bengal Code, p. 135.

As to reports by *chaukidars* of births and deaths, see the Bengal Village Self-Government Act, 1919 (Ben. Act V of 1919), s. 23 (1) (vii), printed in the supplement to the fourth edition of the Bengal Code, p. 133.

<sup>2</sup> For such notifications, see the Bengal Local Statutory Rules and Orders, 1924, Vol. I, part VI.

From and after such date this Act shall apply to the whole of the area so defined.

2. The Magistrate of the district<sup>1</sup> may, for the purpose of such registration, divide any such area into such and so many districts as he may think fit, and may appoint one or more persons to be registrars of births or of deaths, or of births and deaths, within such district, and may at any time for sufficient reason dismiss any such registrar and may fill up any vacancy in the office of registrar.

The Magistrate shall cause to be published a list containing the name and place of office of every registrar in the area, and specifying the hours of the day during which such registrar shall attend at his office for the purpose of registration.

3. Every registrar shall have an office within the district of which he is appointed registrar, and shall cause his name, with the addition of registrar of births (or of deaths, or of births and deaths according to his appointment) for the district for which he is so appointed, and notice of the hours during which he will attend for the purpose of registration, to be affixed in some conspicuous place on or near the outer door of his office.

4. The Magistrate shall cause to be prepared a sufficient number of register-books for making entries of all births or deaths or both, according to such forms as the Lieutenant-Governor<sup>2</sup> may from time to time sanction; and the pages of such books shall be numbered progressively from the beginning to the end; and every place of entry shall be also numbered progressively from the beginning to the end of the book, and every entry shall be divided from the following entry by a line.

(Sections 5-7)

5. Every registrar shall inform himself carefully of every birth, or of every death, or of both, according to his appointment, which shall happen in his district, and shall register, as soon as conveniently may be after the event, without fee or reward, the particulars required to be registered, according to the forms mentioned in the last preceding section, touching every such birth or every such death, as the case may be, which shall not have been already registered.

6. Every *chaukidar* or other village-watchman in any area to which this Act shall apply, or, where there is no *chaukidar* or other village-watchman, such person as the Magistrate may appoint, shall be required to report every birth or death occurring within his beat to such registrar and at such periods as the Magistrate may direct.

<sup>1</sup> Now District Magistrate—see the Code of Criminal Procedure, 1898 (Act V of 1898), s. 3 (2).

<sup>2</sup> Now the Governor in Council of Fort William in Bengal—see the Bengal, Bihar and Orissa and Assam Laws Act, 1912 (VII of 1912), s. 3, and Sch. D, items 1 and 2, printed in the Bengal Code, Ed. 1913-1915, Vol. I, p. 776.

He shall obtain in writing, if possible, and if it is impossible for him to obtain in writing he shall obtain verbally, from any person who is bound to give information of the birth or death all particulars which are required to be known and registered and he shall report such particulars to the registrar.

Any *chaukidar* or other village-watchman or other person so appointed who wilfully or negligently refuses or omits to produce such writing, or if any, or to report such birth or death, shall be punishable at the discretion of the Magistrate with fine which may extend to two rupees.

7. The father or mother of every child born within such area, or in case of the death, illness, absence or inability of the father and mother, the midwife assisting at the birth of such child, shall, within eight days next after the day of every such birth, give information, either personally or in writing, to the registrar of the district, or by means of the *chaukidar* or other village-watchman, or other person as provided in the last preceding section, according to the best of his or her knowledge and belief, of the several particulars hereby required to be known and registered touching the birth of such child.

Any person who refuses or neglects to give any information, which it is his duty to give under this section, shall be punishable at the discretion of the Magistrate with fine which may extend to five rupees:

Provided that not more than one person shall be punishable at the discretion of the Magistrate for such refusal or neglect to give information.

(Sections 8-10)

8. The nearest male relative of the deceased present at the death, or in attendance during the last illness of any person dying, within such area, or in the absence of any such relative, the occupier of the house, or, if the occupier be the person who shall have died, some male inmate of the house in which such death shall have happened, shall within eight days next after the day of such death, give information either personally or in writing to the registrar of the district<sup>1</sup>, or by means of the *chaukidar* or other village-watchman or other person as provided in section 6, according to the best of his knowledge and belief, of the several particulars hereby required to be known and registered touching the death of such person:

Provided that no person shall be bound to give the name of any female relative.

<sup>1</sup> Or any sub-registrar appointed for a burning-ghat or burial ground—see the Bengal Municipal Act, 1884 (Ben. Act III of 1884), s. 348, printed in the Bengal Code, Ed. 1913-1915, Vol. II, p. 845.

As to duty of Medical Officer-in-Charge of Hospital to give notice of death, see *ibid.*, s. 349, printed *ibid.*, p. 845.

Any person who refuses or neglects to give any information which it is his duty to give under this section, shall be punishable at the discretion of the Magistrate with fine which may extend to five rupees;

(Sections 11, 12)

Provided that not more than one person shall be punishable for such refusal or neglect to give information.

9. Any registrar<sup>1</sup> who refuses or neglects to register any birth or death occurring within his district, which he is bound to register, within a reasonable time after he shall have been duly informed thereof, or demands or accepts any fee or reward or other gratification as a consideration for making such registry, shall be punishable at the discretion of the Magistrate with fine which may extend to fifty rupees for each such refusal or neglect.

10. Whoever wilfully makes or causes to be made, for the purpose of being inserted in any register of births or deaths, any false statement touching any of the particulars required to be known and registered, shall be punishable at the discretion of the Magistrate with a fine not exceeding fifty rupees.

<sup>1</sup> Or any sub-registrar appointed for a burning ghat or a burial ground—see *ibid.*, s. 348, printed *ibid.*, p. 845.

11. In any place to which the District Municipal Improvement Act<sup>1</sup> shall have been extended, the Ben. Act III of 1864 Municipality under Ben. Act III of 1884 may arrange for keeping register of births or deaths or both

if at a meeting specially convened for considering such question they shall so determine, arrange for keeping a register of all births or of all deaths or of all births and deaths, occurring within the municipality. On and after a date to be fixed at such meeting, the Commissioners shall in such case be authorized to provide out of the municipal fund for the employment of a sufficient number of registrars, and for the expenditure necessary for the maintenance of such registers, and shall exercise all the powers of a Magistrate under this Act; and all the provisions of this Act shall be deemed to apply to such place.

12. The Magistrate of a district<sup>2</sup> may depute any subordinate Magistrate to exercise the powers and to perform the duties vested in the Magistrate by this Act, within such district or any part thereof.

Magistrate may depute subordinate Magistrate to discharge his functions

<sup>1</sup> Ben. Act III of 1864 was repealed by Ben. Act V of 1876, which again has been repealed and re-enacted by the Bengal Municipal Act, 1884 (Ben. Act III of 1884), and this reference should now be taken to be made to the latter Act—see s. 2 thereof, printed in the Bengal Code, Ed. 1913-1915, Vol. II, p. 710.

<sup>2</sup> Now District Magistrate—see the Code of Criminal Procedure, 1898 (Act V of 1898), s. 3 (2).

## APPENDIX I

### Milestones in the development of vital statistics in India and outside

1836	. . . . .	England . . . . .	. . . . .	Promulgation of Births, Marriages and Deaths Registration Act.
1875	. . . . .	England . . . . .	. . . . .	Compulsory registration of live births, deaths and marriages.
1927	. . . . .	England . . . . .	. . . . .	Compulsory registration of still births.
1900	. . . . .	United States . . . . .	. . . . .	Compulsory registration of live births, still births, deaths and marriages.
1915	. . . . .	United States . . . . .	. . . . .	First year of separately published official birth statistics for Birth Registration area of United States.
1886	. . . . .	India . . . . .	. . . . .	Births, Deaths and Marriage Registration Act: voluntary and for marriages not in effect for Hindu or Muslim communities.
1873	. . . . .	Bengal . . . . .	. . . . .	Births and Deaths Registration Act.
1809	. . . . .	Madras . . . . .	. . . . .	Births and Deaths Registration Act.
1932	. . . . .	Coorg . . . . .	. . . . .	Births and Deaths Registration Act.
1935	. . . . .	Assam . . . . .	. . . . .	Births and Deaths Registration Act.

## APPENDIX II

### A calendar of registration of vital events from 1870 in Bengal

1870	. . . . .	Deaths by sex, by months, by causes, namely cholera, small-pox, fever, bowel complaints, injuries, namely suicide, wounds and accidents, snake bites or killed by wild animals, all other causes. Total deaths from all causes. Deaths by age, namely born dead, not exceeding 1 year, 1 year to 6 years, 6 years to 12 years, 12 years to 20 years, 20 years to 30 years, 30 years to 40 years, 40 years to 50 years, 50 years to 60 years, and exceeding 60 years.
1872	. . . . .	Deaths by communities, namely Hindus, Muslims, Christians and other classes.
1873	. . . . .	Births by communities, namely Hindus, Muslims, Christians, Buddhists and all other classes. Deaths by communities as that of 1872, only Buddhists have been inserted.
1874	. . . . .	Births by sex. Deaths by age according to infants (children unable to walk), boys and girls, adults, old people, total.

## APPENDIX II—contd.

1875	.	.	} No change.
1876	.	.	
1877	.	.	} Deaths from suicide according to sex.
1878	.	.	
1879	.	.	} No change.
1880	.	.	
1881	.	.	} Deaths by age according to 0—1 year, 1—5 years, 5—10 years, 10—15 years, 15—20 years, 20—30 years, 30—40 years, 40—50 years, 50—60 years and exceeding 60 years.
1882	.	.	
1883	.	.	} No change.
1884	.	.	
1885	.	.	
1886	.	.	
1887	.	.	
1888	.	.	
1889	.	.	
1890	.	.	} Deaths from dysentery and diarrhoea by months.
1891	.	.	
1892	.	.	} No change.
1893	.	.	
1894	.	.	
1895	.	.	
1896	.	.	
1897	.	.	
1898	.	.	
1899	.	.	} Deaths—Registration of attacks and deaths from plague during each month.
1900	.	.	
1901	.	.	} Deaths—Registration of deaths from plague.
1902	.	.	
1903	.	.	} Deaths—from respiratory diseases.
1904	.	.	
1905	.	.	} No change.
1906	.	.	
1907	.	.	} Deaths—respiratory diseases by months.
1908	.	.	
1909	.	.	} Deaths—from plague by months.
1910	.	.	
1911	.	.	} No change.
1912	.	.	
1913	.	.	
1914	.	.	
1915	.	.	
1916	.	.	
1917	.	.	
1918	.	.	} Deaths from rabies.
1919	.	.	
1920	.	.	} No change.
1921	.	.	
1922	.	.	} Monthly malaria reports of Hospitals and Dispensaries.
	.	.	
			Deaths under one year as under heading under 1 month, between 1—6 months, 6—12 months, total, and 1—5 years, 5—10 years, 10—15 years, 15—20 years, 20—30 years, 30—40 years, 40—50 years, 50—60 years, 60 upwards
			and
			deaths from causes—malaria, enteric fever, measles, relapsing fever, kala-azar, other fevers, dysentery and diarrhoea (shown separately), influenza, pneumonia, phthisis, other respiratory diseases and death from child birth.
1923	.	.	} No change.
1924	.	.	
1925	.	.	} Monthly Kala-azar reports of Hospitals and Dispensaries.
1926	.	.	
1927	.	.	} No change.
1928	.	.	
1929	.	.	} Quarterly statements showing the working of the Bengal Births and Deaths Registration Act, separately for the Municipalities and the rural areas.
1930	.	.	
1931	.	.	} Deaths under one month as under heading male—under one week, over one week, total and female—under one week, over one week, total and total under one month.
1932	.	.	
1933	.	.	} No change.
1934	.	.	
1935	.	.	} Registration of births according to chief communities.
1936	.	.	
	.	.	} Deaths of infants under one year by communities.
	.	.	
	.	.	} Still births registered according to communities and sex.
	.	.	
	.	.	} Deaths from cerebrospinal fever, typhus fever, black water fever, whooping cough, beri beri, acute poliomyelitis, diphtheria, chicken pox, mumps, T. B. of joints, other tubercular diseases, leprosy and cancer.
	.	.	
1937	.	.	} No change.
1938	.	.	
1939	.	.	
1940	.	.	
	.	.	Deaths from snake bites and killed by wild animals (shown separately), anthrax, epidemic dropsy, T. B. of meninges and homicide.

## APPENDIX II—concl'd.

1941	. . .	} No change.
1942	. . .	
1943	. . .	
1944	. . .	
1945	. . .	
1946	. . .	Deaths under one month as under heading male—within 24 hours, one day to one week, one week to one month, total, female—within 24 hours, one day to one week, one week to one month, total and total of under one month, between 1 and 3 months, between 3 months to 6 months, between 6 months to 12 months and under 1 year.
1947	. . .	} No change.
1948	. . .	
1949	. . .	
1950	. . .	
1951	. . .	

## APPENDIX III

## List of Notifiable Diseases

## I—In Calcutta and Howrah

- 1 Cholera
- 2 Small-pox
- 3 Measles
- 4 Yellow fever
- 5 Whooping cough
- 6 Influenza
- 7 Pneumonia
- 8 Enteric fever
- 9 Plague
- 10 Cerebrospinal Meningitis
- 11 Diphtheria
- 12 Leprosy
- 13 Tuberculosis (all forms)
- 14 Anthrax
- 15 Dysentery (Amoebic and Bacillary)
- 16 Relapsing fever
- 17 Typhus fever
- 18 Epidemic Dropsy
- 19 Elephantiasis
- 20 Dengue
- 21 Malaria

## II—In other Municipalities

- 1 Anthrax
- 2 Chicken pox
- 3 Dysentery, both Bacillary and Amoebic
- 4 Measles
- 5 Relapsing fever
- 6 Tuberculosis of all forms
- 7 Typhus fever
- 8 Whooping cough
- 9 Yellow fever
- 10 Influenzal pneumonia
- 11 Leprosy
- 12 Epidemic dropsy
- 13 Diphtheria

## III—In Rural Areas

- 1 Cholera
- 2 Small-pox
- 3 Influenza
- 4 Typhoid fever
- 5 Typhus fever
- 6 Relapsing fever
- 7 Cerebrospinal meningitis
- 8 Beri Beri
- 9 Plague

## APPENDIX IV

## Births and Deaths since 1870 in Districts of West Bengal

Years	Burdwan		Birbhum		Bankura		Midnapur		Hooghly		Howrah		24 Parganas	
	B	D	B	D	B	D	B	D	B	D	B	D	B	D
1870	..	9,726	..	2,032	..	2,298	..	3,174	..	3,325	..	512	..	6,326
1871	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1872	..	29,864	..	14,941	..	2,798	..	11,881	..	5,566	..	3,812	..	17,177
1873	388	25,963	192	13,274	588	4,077	..	21,210	1,842	5,841	2,327	4,934	1,407	19,725
1874	786	1,923	209	3,361	583	1,168	5,581	6,294	2,341	2,984	2,327	4,934	1,407	1,616
1875	1,418	2,699	194	2,047	772	1,005	3,478	3,342	2,829	3,171	2,606	5,652	1,288	1,724
1876	1,729	3,033	203	5,320	914	1,255	4,226	2,707	4,042	6,390	2,018	3,781	979	1,997
1877	2,155	23,317	14,215	17,937	8,953	7,089	4,510	44,163	6,112	8,272	11,148	13,853	37,732	37,412
1878	1,139	39,396	148	17,253	1,070	12,629	976	44,290	862	9,337	1,620	13,615	5,402	55,478
1879	1,026	35,625	143	11,616	947	9,452	886	30,020	665	5,764	1,098	7,465	4,623	25,466
1880	632	29,327	..	17,971	1,242	14,694	715	39,511	756	11,874	1,979	10,285	4,408	41,413
1881	940	41,010	..	25,557	1,101	27,284	625	56,871	858	15,686	2,079	11,652	5,102	38,667
1882	966	39,092	..	27,285	1,037	33,559	405	52,019	871	16,378	1,863	9,589	5,470	33,620
1883	966	39,092	..	27,285	1,037	33,559	405	52,019	871	16,378	1,863	9,589	5,470	33,620
1884	882	33,198	..	20,608	1,150	21,121	518	61,846	802	14,205	1,951	12,145	5,559	32,403
1885	936	35,526	..	22,608	1,220	19,033	716	50,773	1,022	13,486	2,789	12,357	6,418	31,713
1886	768	27,126	..	16,256	1,100	18,943	611	51,324	963	16,391	2,470	13,592	5,429	31,703
1887	1,141	27,046	..	21,168	815	16,624	1,452	55,424	1,279	13,994	2,191	11,870	5,017	40,539
1888	1,458	29,627	106	21,757	941	19,498	1,603	59,209	2,285	15,464	2,152	14,867	8,303	48,187
1889	1,643	33,918	129	21,738	941	21,711	1,886	58,299	301	16,623	2,418	15,107	5,035	32,433
1890	1,357	28,251	117	19,474	1,105	18,601	2,015	61,832	2,619	16,695	2,221	16,064	4,810	36,900
1891	1,391	36,825	122	24,122	1,263	20,778	2,138	7,458	1,272	19,593	2,351	18,500	5,170	55,785
1892	34,977	46,443	22,204	26,297	25,882	23,727	66,814	81,207	23,014	35,565	20,250	3,307	39,242	19,185
1893	49,430	36,196	32,409	23,172	34,966	20,343	87,105	66,515	38,638	38,638	24,773	18,488	54,708	41,560
1894	40,980	48,119	25,925	28,686	34,869	33,067	77,487	73,068	29,008	36,728	24,146	20,991	49,908	45,600
1895	41,638	48,002	28,888	26,444	34,837	30,771	93,694	73,677	28,183	40,005	25,013	25,370	49,693	55,982
1896	43,313	47,952	29,530	26,126	41,698	32,557	88,773	80,637	27,794	40,159	24,973	25,081	48,863	55,982
1897	46,111	41,559	32,062	28,738	38,431	28,546	94,762	74,549	31,885	33,999	27,970	22,391	59,607	46,212
1898	45,822	29,666	31,983	17,157	38,101	20,104	91,108	64,040	27,799	29,995	25,975	22,156	52,938	42,135
1899	52,454	36,168	35,054	20,526	44,063	22,480	105,235	66,188	31,214	31,006	27,720	25,386	60,533	51,730
1900	47,271	45,292	32,387	22,355	40,654	25,493	95,574	76,814	29,511	35,569	27,523	28,802	60,625	56,127
Census population 1901	1,528,290		906,891		1,116,411		2,789,114		1,049,041		850,514		2,155,981	
1901	48,451	45,310	34,401	23,089	40,299	30,203	89,620	92,728	29,736	37,287	26,237	26,042	57,576	48,180
1902	51,123	52,553	34,367	24,117	37,222	37,061	86,033	115,106	81,559	42,568	26,882	29,996	64,144	62,480
1903	48,401	50,185	33,722	24,882	37,169	35,687	93,543	86,759	30,311	39,465	25,970	28,942	66,901	64,799
1904	57,671	44,306	36,768	26,156	43,269	27,883	102,860	71,948	36,662	34,583	31,253	26,186	69,657	68,528
1905	50,332	54,529	30,918	29,876	40,488	34,364	93,056	93,839	33,796	37,621	29,084	28,288	68,647	60,477
1906	45,384	53,699	27,711	36,004	39,735	34,010	87,844	100,698	30,363	34,138	26,280	26,198	64,111	59,214
1907	50,953	64,901	50,953	64,901	41,550	38,331	91,789	99,272	34,274	42,720	28,862	29,300	63,952	60,674
1908	40,326	68,392	25,956	44,117	33,872	42,576	91,204	85,911	31,787	37,579	28,216	24,932	71,580	59,944
1909	48,872	39,763	31,855	25,397	38,463	30,317	97,799	62,836	36,232	30,320	28,203	22,033	79,988	49,148
1910	52,894	40,951	36,052	24,879	48,529	31,987	97,522	67,211	35,986	29,765	28,890	20,153	74,489	51,630
Census population 1911	1,583,874		940,162		1,138,670		2,821,201		1,090,097		943,502		2,478,335	
1911	49,484	41,890	34,687	27,499	43,607	32,122	95,202	72,109	36,818	33,561	30,320	22,488	80,616	60,424
1912	46,572	48,894	32,109	32,288	40,734	33,801	89,815	94,875	34,446	38,333	31,189	26,598	76,645	72,857
1913	45,075	48,781	33,419	30,819	40,064	40,389	81,877	88,531	29,930	37,824	28,318	28,368	67,677	64,985
1914	46,796	59,907	32,379	43,702	38,681	46,062	90,417	77,289	30,497	34,739	28,913	27,076	73,340	62,208
1915	38,933	53,728	22,598	41,649	33,451	38,196	88,125	88,003	31,387	35,601	28,400	26,917	66,698	61,982
1916	49,672	49,616	31,276	30,708	36,012	35,777	83,869	82,657	33,640	34,018	31,012	22,610	87,443	71,688
1917	53,366	45,935	35,405	24,668	34,617	31,144	85,662	78,969	35,945	33,704	29,446	24,344	75,129	64,192
1918	44,586	79,689	32,338	46,418	37,219	56,981	78,206	107,385	27,995	51,459	27,242	30,369	69,509	51,184
1919	32,667	77,676	22,174	58,252	28,482	41,588	68,410	113,260	23,454	39,361	25,432	33,086	67,687	65,430
1920	39,675	56,642	25,836	40,876	34,366	38,428	75,581	97,895	29,955	38,759	28,055	34,011	59,718	55,147
Census population 1921	1,434,771		851,725		1,019,941		2,666,660		1,080,142		997,403		2,636,710	
1921	39,439	52,532	28,342	32,548	32,134	39,035	70,655	82,462	27,543	34,999	26,518	28,695	56,934	77,665
1922	42,752	39,007	29,970	22,436	35,961	27,403	76,589	64,396	28,111	29,036	26,345	25,695	64,839	64,014
1923	43,508	37,329	31,662	22,969	34,369	24,732	77,033	62,874	30,720	27,367	27,175	22,164	66,254	61,414
1924	39,503	36,352	31,371	24,221	34,188	28,387	72,568	65,889	27,396	27,658	27,217	24,246	58,452	63,222
1925	47,368	35,276	37,010	21,076	38,268	24,201	79,273	60,044	28,831	27,804	27,506	24,434	64,125	58,287
1926	45,098	36,880	35,427	24,778	40,070	25,640	82,205	67,235	26,958	26,504	28,207	30,728	64,441	65,819
1927	42,888	37,921	31,036	24,663	32,435	25,798	69,936	64,229	24,291	26,229	24,345	29,010	57,008	58,987
1928	41,636	37,576	31,762	25,059	35,214	23,986	79,848	63,838	27,510	27,922	27,754	26,062	65,087	63,225
1929	45,061	35,297	35,290	21,701	38,043	27,187	87,651	57,313	27,643	21,828	26,960	21,829	73,749	59,597
1930	36,310	33,817	34,901	24,338	31,086	25,936	74,225	55,730	25,840	22,425	24,820	21,202	66,184	48,616
Census population 1931	1,575,699		947,554		1,111,721		2,799,093		1,114,255		1,098,867		2,888,604	
1931	42,599	35,253	35,699	27,827	31,468	25,434	78,016	62,958	27,835	22,804	28,208	20,325	73,761	48,582
1932	39,310	34,511	31,482	27,145	28,132	21,406	72,045	58,734	27,314	23,856	27,270	19,537	68,819	48,217
1933	46,649	39,103	38,181	29,752	34,102	27,440	81,727	61,497	31,721	26,000	29,420	21,294	71,532	45,397
1934	40,187	30,216	30,670	31,496	34,433	30,005	78,173	62,202	30,169	25,345	29,680	21,777	77,640	52,522
1935	48,923	31,522	35,536	24,549	35,708	26,449	91,998	62,167	38,030	24,506	32,821	22,515	87,320	56,860
1936	46,833	27,210	37,519	23,113	42,295	23,715	87,844	63,331	37,841	20,562	33,155	25,356	79,719	63,229
1937	44,411	29,260	25,621	24,713	41,019	27,210	84,813	61,274	38,550	25,458	32,831	21,124	79,621	58,449
1938	46,847	43,688	34,091	28,623	39,774	28,512	81,463	66,290	31,983	30,769	28,036	24,127	71,967	59,329
1939	45,773	45,059	30,894	29,317	38,593	28,634	69,885	61,052	30,221	24,319	31,343	21,097	86,314	47,991
1940	52,208	36,769	34,761	22,246	38,642	24,600	90,667							



## APPENDIX IV—concl'd.

## Births and Deaths since 1870 in Districts of West Bengal—concl'd.

Years	Calcutta		Nadia		Murshidabad		West Dinajpur		Jalpaiguri		Darjeeling		Malda	
	B	D	B	D	B	D	B	D	B	D	B	D	B	D
1870	..	..	..	2,627	..	2,159	..	1,877	..	626	..	355	..	1,066
1871	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1872	..	..	..	9,842	..	7,491	..	11,051	..	2,032	..	753	..	3,202
1873	..	..	..	1,341	..	274	..	..	..	864	..	85	..	767
1874	..	..	..	1,583	..	1,003	..	208	..	708	..	138	..	1,029
1875	..	..	..	1,241	..	1,059	..	164	..	808	..	240	..	955
1876	7,452	12,964	1,345	3,008	..	5,166	..	1,049	..	847	..	254	..	976
1877	7,457	13,704	42,190	47,484	30,211	33,600	31,027	40,828	2,343	5,795	575	1,089	13,287	23,426
1878	..	..	1,421	44,881	1,193	33,898	56	36,306	88	8,909	48	1,576	238	16,112
1879	6,409	13,044	1,186	35,187	1,131	23,248	66	28,879	78	5,399	38	779	164	10,238
1880	7,552	11,661	1,611	59,450	..	24,563	..	33,990	..	7,831	..	58	..	11,674
1881	..	..	..	1,144	..	84,846	..	37,787	..	29,431	..	42	1,059	15,006
1882	..	11,490	1,153	79,459	..	37,792	..	26,025	..	8,924	..	60	1,088	1,482
1883	..	10,832	1,170	59,726	..	30,267	..	28,800	..	10,818	..	51	1,735	12,841
1884	..	..	1,847	65,580	..	33,100	..	26,697	..	11,391	..	66	2,000	13,044
1885	..	..	894	57,545	..	29,693	..	32,234	..	15,116	..	72	2,809	..
1886	7,828	11,447	946	47,874	..	7,383	..	39,196	..	2,041	..	64	4,047	11,021
1887	7,954	10,979	1,106	44,591	..	34,172	..	49,045	..	1,957	..	73	4,430	120
1888	8,643	11,665	1,152	39,580	1,553	30,923	173	45,938	..	19,149	..	205	5,637	263
1889	8,752	11,662	1,947	86,125	1,769	32,123	292	42,569	..	19,339	..	302	5,634	521
1890	..	..	1,825	82,676	1,527	26,438	262	41,802	158	19,477	..	328	6,280	523
1891	..	..	1,657	71,582	1,699	40,599	214	58,283	208	28,186	..	376	7,087	543
1892	8,123	12,674	51,730	58,080	41,668	40,678	2,096	52,279	17,129	23,685	2,680	9,026	22,977	26,804
1893	3,492	20,113	81,579	60,941	58,182	48,527	67,756	50,202	25,092	20,530	3,189	8,996	3,452	32,947
1894	11,435	22,441	52,154	65,082	43,960	43,134	51,506	59,963	21,626	25,263	6,303	9,645	27,495	32,056
1895	10,945	27,031	57,653	63,893	49,333	37,183	54,578	59,011	23,091	24,511	7,060	8,395	29,700	28,195
1896	12,668	24,356	50,022	59,458	54,066	40,939	61,113	59,681	23,513	27,151	7,125	11,487	34,504	25,786
1897	12,584	24,665	71,480	42,919	55,847	35,606	62,640	51,581	24,854	23,109	7,297	9,415	38,628	27,402
1898	9,530	20,343	66,664	36,304	54,531	30,824	62,672	52,405	24,338	22,743	7,450	8,873	33,874	25,927
1899	11,004	25,823	76,753	60,807	60,940	53,903	66,977	61,533	24,280	23,450	8,944	9,000	38,845	41,363
1900	10,773	36,728	60,884	63,934	51,609	49,740	62,432	67,965	23,734	30,772	8,528	11,093	..	..
Census population 1901	920,933	773,202	1,322,486	456,501	544,906	249,117	608,649	..	..	..	..	..	..	..
1901	9,129	32,456	70,497	55,098	54,931	44,875	69,599	59,841	26,895	26,027	9,021	9,754	..	..
1902	12,122	31,410	66,473	68,640	57,259	50,532	77,355	65,051	29,099	26,618	8,539	8,994	..	..
1903	13,132	29,765	58,643	67,930	55,242	48,479	63,358	63,351	24,953	26,103	8,013	9,787	..	..
1904	15,250	27,323	72,904	66,370	58,236	51,753	67,782	63,578	27,600	27,443	9,058	9,852	..	..
1905	15,637	33,181	62,102	77,818	53,446	56,152	70,179	62,396	28,006	26,937	8,921	1,138	42,696	38,794
1906	15,098	30,298	52,590	65,178	50,215	49,292	..	..	..	..	8,047	10,573	..	..
1907	16,224	31,942	64,055	75,637	52,323	57,684	..	..	..	..	7,467	8,955	..	..
1908	17,043	27,689	29,988	29,755	51,017	45,086	20,213	18,703	22,968	23,766	8,610	9,950	27,006	18,729
1909	19,423	28,946	36,446	21,877	60,938	35,922	22,242	18,889	21,582	23,019	8,551	9,308	32,187	18,246
1910	17,106	23,728	36,652	25,966	63,155	44,074	21,010	18,723	23,414	22,794	9,311	9,668	30,992	19,568
Census population 1911	998,012	775,986	1,345,073	509,557	661,232	265,550	698,547	..	..	..	..	..	..	..
1911	19,515	24,396	32,194	29,338	59,450	47,719	18,572	19,639	23,454	24,814	9,151	9,831	29,654	26,721
1912	19,426	25,209	31,513	30,085	59,411	50,702	20,042	18,681	22,383	22,991	9,218	8,860	25,558	30,479
1913	18,396	26,188	30,647	30,212	57,149	52,581	19,706	16,464	22,117	21,864	9,074	10,741	27,696	24,922
1914	17,396	25,431	29,553	40,422	56,319	70,224	19,722	17,346	23,129	21,848	8,731	9,799	27,714	29,754
1915	16,578	25,590	22,616	31,597	44,714	62,049	20,101	18,731	23,381	21,600	9,071	9,621	28,721	28,699
1916	18,737	22,098	28,473	26,796	51,240	45,742	17,756	17,126	21,356	21,533	8,403	10,561	26,346	22,744
1917	18,807	21,380	31,162	26,362	59,619	47,373	20,255	18,055	23,641	21,855	9,349	10,243	30,227	22,135
1918	18,166	31,371	24,849	43,149	50,249	79,960	18,794	20,855	21,569	31,948	8,883	14,110	24,039	30,428
1919	16,565	37,839	20,718	84,789	39,614	64,898	16,016	22,129	20,450	26,888	7,966	12,856	21,418	27,399
1920	15,875	35,276	23,658	81,623	47,868	51,285	18,200	19,961	22,441	19,252	8,056	11,600	23,020	21,683
Census population 1921	1,081,697	711,706	1,224,181	490,484	694,056	282,748	686,174	..	..	..	..	..	..	..
1921	17,308	30,395	23,266	31,055	49,547	49,378	19,236	18,390	20,175	20,175	8,368	12,192	24,427	20,069
1922	17,349	26,381	25,271	22,159	48,445	36,976	16,318	15,182	19,016	17,044	8,610	10,506	20,218	14,804
1923	18,121	25,834	28,226	21,630	52,979	33,846	17,780	17,776	22,537	19,216	9,586	9,426	24,668	17,910
1924	19,666	31,881	25,042	21,883	52,396	33,905	17,932	15,683	20,906	20,458	9,463	10,196	26,993	16,174
1925	20,346	35,195	29,956	25,709	59,812	39,076	19,600	17,043	19,914	17,751	9,639	9,184	27,949	20,002
1926	18,199	37,376	20,332	22,791	48,599	43,627	15,676	16,455	17,482	18,237	9,476	8,469	20,417	18,807
1927	16,740	36,820	23,046	20,931	50,596	62,669	19,517	17,396	22,294	17,897	9,152	7,928	23,598	26,044
1928	22,001	34,119	24,595	21,890	53,237	37,041	18,326	17,629	22,308	18,627	10,336	8,894	23,016	19,037
1929	22,789	32,981	24,357	24,903	55,012	35,405	14,334	14,498	22,244	17,739	10,044	8,755	22,601	19,772
1930	23,151	31,135	20,234	24,409	48,938	40,481	13,848	14,279	21,516	17,749	9,997	8,837	19,011	22,246
Census population 1931	1,140,862	721,907	1,370,677	523,977	739,180	319,635	720,440	..	..	..	..	..	..	..
1931	26,477	30,562	25,608	23,954	51,563	38,286	15,589	13,016	23,029	17,298	11,754	8,986	22,124	21,630
1932	24,925	30,011	23,888	22,410	50,878	33,121	16,517	14,133	23,047	17,871	11,462	9,728	21,649	15,635
1933	26,045	35,175	27,910	24,027	58,019	38,770	16,698	14,652	24,129	19,690	12,483	9,472	24,798	18,084
1934	25,717	34,356	25,733	21,154	48,793	41,937	16,599	15,041	24,501	20,721	11,945	10,296	18,261	16,132
1935	25,338	34,093	29,562	19,995	54,392	30,204	16,421	14,120	24,854	19,158	12,819	10,397	24,567	14,587
1936	30,495	37,144	30,525	17,084	58,493	35,381	18,812	16,246	25,484	21,029	12,462	10,376	26,212	15,209
1937	26,639	33,409	31,026	21,305	60,516	35,980	15,929	16,840	25,347	21,084	12,128	10,775	26,739	15,083
1938	28,256	35,556	24,396	22,016	51,492	37,150	15,611	14,224	25,494	20,093	12,233	10,441	19,128	14,547
1939	29,250	34,152	27,193	17,962	49,154	53,987	13,790	10,399	25,354	21,478	12,354	11,152	20,484	13,776
1940	29,730	31,524	31,592	19,435	57,488	30,576	13,916	9,669	24,346	19,180	11,489	9,995	18,620	12,404
Census population 1941	2,108,891	840,303	1,640,530	583,484	845,702	376,369	844,315	..	..	..	..	..	..	..
1941	29,290	36,176	26,828	19,318	66,768	31,431	14,379	10,782	25,930	20,439	11,308	10,717	16,219	11,221
1942	19,837	24,594	30,496	19,123	65,116	33,333	12,499	9,081	23,739	19,902	10,908	10,273	12,994	6,750
1943	19,631	52,												

## APPENDIX V

## Good and bad registration areas by districts of West Bengal: Birth rate—Municipalities—1949

(Per mille of population)

District	Below 10 p.m.	Between 10 and 20 p.m.	Above 20 p.m.
Burdwan . . . .	Asansol . . . .	Burdwan . . . . Katwa . . . . Raniganj . . . .	Kalna Dainhat
Birbhum . . . .	Suri		
Bankura . . . .	Bankura Bishnupur	Sonamukhi	
Midnapur . . . .	Kharar . . . .	Midnapur . . . . Ghatal . . . . Tamluk . . . .	Chandrakona Ramjibanpur Khirpai
Hooghly . . . .	Rishra . . . . Bansberia	Konnagar . . . . Baidyabati . . . . Uttarpara . . . . Kotrung Bhadreshwar Champdani	Hooghly-Chinsurah Arambag Serampur
Howrah . . . .	Howrah Bally		
24-Parganas . . . .	Tollyganj . . . . Khardah . . . . Panihati . . . . Barrackpur . . . . Naihati . . . . Halisahar . . . . Kanchra para . . . . Barasat . . . . Gobardanga . . . .	Garden Reach . . . . Baruipur . . . . Budge Budge . . . . Rajpur . . . . North Dum Dum . . . . South Dum Dum . . . . Garulia . . . . North Barrackpur . . . . Taki South Suburbs Jaynagar-Majilpur Bhatpara Kamarhati Basirhat Titagarh Baduria	Dum Dum Baranagar
Calcutta . . . .	....	....	Calcutta
Nadia . . . .	Ranaghat . . . .	Birnagar . . . . Chakdah . . . .	Krishnagar Nabadwip Santipur
Murshidabad . . . .	Jiaganj-Asimganj . . . . Kandi . . . .	Murshidabad . . . . ....	Berhampur Jangipur Dhulian
Jalpaiguri . . . .	....	....	Jalpaiguri
Darjeeling . . . .	....	....	Darjeeling Kurseong Kalimpong
Malda . . . .	....	....	English bazar Old Malda

## APPENDIX V—contd.

## Good and bad registration areas by districts of West Bengal: Birth rate—Police Stations—1949

District	Below 10 p.m.	Between 10 and 20 p.m.	Above 20 p.m.
Burdwan . . . . .	Kulti . . . . .	Burdwan	
	Salanpur . . . . .	Memari	
	Khandaghoah . . . . .	Galsi	
	Mantewar . . . . .	Ausgram	
	Jamuria . . . . .	Kalna	
		Katwa	
		Ketugram	
		Faridpur	
		Kanksa	
		Asansol	
		Raniganj	
		Ondal	
		Raina	
		Jamalpur	
	Bhatar		
	Purbasthali		
	Mangalkot		
	Barabani		
Birbhum . . . . .	....	Sainthia . . . . .	Muhammadbazar
		Dubrajpur . . . . .	Nalhati
		Illambazar	
		Bolpur	
		Nanoor	
		Rampurhat	
		Mayureswar	
		Suri	
		Rajnagar	
		Khayrasol	
		Labpur	
		Mururai	
Bankura . . . . .	Indas . . . . .	Bankura . . . . .	Taldangra
	Barjora . . . . .	Saltora . . . . .	Ranibandh
		Mejhia	
		Onda	
		Jaypur	
		Patrasair	
		Gangajalghati	
		Indpur	
		Khatra	
		Chhatna	
		Simlatal	
		Vishnupur	
		Sonamukhi	
		Kotulpur	
	Raipur		
Midnapur . . . . .	Daspur . . . . .	Khargpur . . . . .	Jambani
	Panskura . . . . .	Dantan . . . . .	Binpur
	Egra . . . . .	Mohanpur . . . . .	Garhbata
	Sankrail . . . . .	Debra . . . . .	Moyna
		Keahpur . . . . .	Keshiari
		Pingla . . . . .	Narayangarh
		Ghatal	
		Tamluk	
		Sutabata	
		Pataspur	
		Ramnagar	
		Midnapur	
		Salbani	
		Jhargram	
		Sabang	
		Gopiballavpur	
		Nayagram	
		Chandrakona	
		Mahisdal	
	Nandigram		
	Contai		
	Bhagwanpur	....	
	Khedgee		

## APPENDIX V—contd.

Good and bad registration areas by districts of West Bengal : Birth rate—Police Stations—1949—contd.

District	Below 10 p.m.	Between 10 and 20 p.m.	Above 20 p.m.
Hooghly . . . . .	Magra . . . . . Polba . . . . . Haripal . . . . . Khanakul . . . . . Jangipara . . . . . Uttarpara . . . . . Bhadreswar . . . . . Chinsurah . . . . .	Pandua . . . . . Dhaniakhali . . . . . Balagarh . . . . . Tarakeswar . . . . . Arambag . . . . . Goghat . . . . . Pursura . . . . . Serampur Singur	Chanditala
Howrah . . . . .	Bally . . . . . Domjur . . . . . Sankrail Jagacha Jagatballavpur Panchla Uluberia Amta Bauria	Bagnan Shyampur	
24-Parganas . . . . .	Tollyganj . . . . . Metiabruz . . . . . Budge Budge . . . . . Baruipur . . . . . Sonarpur . . . . . Bhangar . . . . . Jaynagar . . . . . Noopara . . . . . Titagarh . . . . . Naihati . . . . . Bijpur . . . . . Habra . . . . . Behala . . . . . Maheshtala Bishnupur Canning Khardah Jagaddal Barasat Gaighata Bangaon Swarupnagar Kakdwip Magrahat Mathurapur	Dum Dum . . . . . Amdanga . . . . . Rajarhat . . . . . Basirhat . . . . . Hasnabad . . . . . Sandeshkhali . . . . . Baduria . . . . . Haroa . . . . . Diamond Harbour . . . . . Kulpi . . . . . Falta . . . . . Sagar . . . . . Deganga . . . . .	
Nadia . . . . .	Chakdah . . . . .	Krishnagar . . . . . Nabadwip . . . . . Nakasipara . . . . . Tehatta . . . . . Ranaghat . . . . . Santipur . . . . . Kaliganj . . . . . Karimpur . . . . . Krishnaganj . . . . . Haringhata . . . . . Hanskhali . . . . .	Chapra
Murshidabad . . . . .	Berhampur Town . . . . .	Nawada . . . . . Raninagar . . . . . Murshidabad . . . . . Bharatpur . . . . . Kandi . . . . . Khargram . . . . . Hariharpara . . . . . Nabagram . . . . . Jiaganj . . . . . Bhagwangola . . . . . Lalgola . . . . . Burwan . . . . . Suti . . . . . Beldanga . . . . .	Domkal . . . . . Sagardighi . . . . . Raghunathganj . . . . . Jalangi . . . . . Samserganj . . . . .

## APPENDIX V—contd.

Good and bad registration areas by districts of West Bengal: Birth rate—Police Stations—1949—concl'd.

District	Below 10 p.m.	Between 10 and 20 p.m.	Above 20 p.m.
Malda . . . . .	Kharba . . . . . Kaliachak . . . . .	Harishchandrapur . . . . . Ratus . . . . . Gajol . . . . .	Englishbazar Manikchak Bamangola Malda Habibpur
West Dinajpur . . . . .	....	Kushmandi . . . . . Tapan . . . . . Gangarampur . . . . . Balurghat . . . . . Itahar . . . . . Banahihari	Kumarganj Raiganj Hili Kaliaganj Hemtabad
Jalpaiguri . . . . .	Mainaguri . . . . .	Jalpaiguri . . . . . Alipur Duars . . . . .	Rajganj Mal Falakata Kalchini Nagrakata Madarihath Matiali Kumarganj Dhupguri
Darjeeling . . . . .	....	Siliguri . . . . . Pulbazar . . . . . Jore-Bungalow . . . . . Kalimpong . . . . .	Kurseong Phansidewa Sukhiapokri Rangli Rangliot Mirik Darjeeling Kharibari Garubathan

Good and bad registration areas by districts of West Bengal: Death rate—Municipalities—1949

Burdwan . . . . .	Burdwan . . . . . Dainhat . . . . . Raniganj Asansol	.... ....	Kalna Katwa
Birbhum . . . . .	Suri		
Bankura . . . . .	Bankura . . . . . Vishnupur	Sonamukhi	
Midnapur . . . . .	Kharar . . . . .	Ghatal . . . . . Tamluk . . . . . Ramjibanpur Chandrakona	Midnapur Khirpai
Hooghly . . . . .	Rishra . . . . . Kotrung . . . . . Champdani . . . . . Konnagar . . . . .	Bansberia . . . . . Arambag . . . . . Baidyabati Bhadreswar Uttarpara	Hooghly Serampur
Howrah . . . . .	Bally . . . . .	....	Howrah
24-Parganas . . . . .	Tollyganj . . . . . Garden Reach . . . . . Baruipur . . . . . Jaynagar Majilpur . . . . . Dum Dum . . . . . North Dum Dum South Dum Dum Garulia North Barrackpur Barrackpur Halisahar Kanchrapara Kamarhati Barasat Khardah Panibati Basirhat Gobardanga Taki Baduria	Budge Budge . . . . . Rajpur . . . . . Naihati South Suburbs Titagarh	Bhatpara Baranagar

## APPENDIX V—contd.

## Good and bad registration areas by districts of West Bengal: Death rate—Municipalities—1949—concl'd.

District	Below 10 p.m.	Between 10 and 20 p.m.	Above 20 p.m.
Calcutta	.....	.....	Calcutta
Nadia	Ranaghat	Krishnagar Birnagar Santipur Chakdah	Nabadwip
Murshidabad	Kandi Jiaganj Jangipur Dhulian	Murshidabad	Berhampur
Jalpaiguri	.....	Jalpaiguri	
Darjeeling	.....	Darjeeling Kurseong Kalimpong	
Malda	Englishbazar	Old Malda	

## Good and bad registration areas by districts of West Bengal: Death rate—Police Stations—1949

District	Below 15 p.m.	Between 15 and 25 p.m.	Above 25 p.m.
Burdwan	Asansol Raniganj Ondal Jamuria Barabani Salanpur Kulti Khandaghosh	Burdwan Jamalpur Raina Memari Galsi Kalna Manteswar Bhatar Ausgram Purbasthali Katwa Mangalkot Faridpur	Ketugram Kanksa
Birbhum	.....	Murari Sainthia Bolpur Nalhati Rampurhat Muhammadbazar Khayrasol Mayureswar	Suri Rajnagar Dubrajpur Illambazar Labpur Nancoor
Bankura	Saltora Simlupal Indas	Chhatna Mejhia Onda Taldangra Indpur Khatra Raipur Ranibandh Jaypur Patrasair Kotulpur Bankura Vishnupur	Gangajalhati Barjora Sonamukhi
Midnapur	Tamluk Nandigram Sutahata Contai Ramnagar Khedgree	Khargpur Garhbeta Saltani Jhargram Binpur Gopiballavpur Nayagram Daspur Mahisadal Panakura Bhagwanpur Midnapur Dantan Mohanpur Debra Keshpur Jambani	Narayangarh Keshiari Pingla Patasapur Sabang

## APPENDIX V—contd.

Good and bad registration areas by districts of West Bengal: Death rate—Police Stations—1949—contd.

District	Below 15 p.m.	Between 15 to 25 p.m.	Above 25 p.m.
Midnapur—contd.	....	Ghatal Chandrakona Moyna Egra	
Hooghly	Chinsurah Magra Balagarh Uttarpara Bhadreswar Singur Haripal Goghat	Serampur Tarakeswar Jangipara Arambag Pursura Khanakul Polba Pandua Dhaniakhali	Chanditala
Howrah	Bally Domjur Sankrail Jagacha Jagatballavpur Panchla Uluberia Bauria	Amta Bagnan Shyampur	
24-Parganas	Tollyganj Behala Maheshtala Baruipur Bhangar Jaynagar Noapara Dum Dum Titagarh Metiabrus Budge Budge Sonarpur Bishnupur Canning Khardah Naihati Jagaddal Bijpur Barasat Rajarhat Basirhat Haatabad Sandeshkhali Swarupnagar Baduria Haroa Diamond Harbour Kakdwip Sagar Falta	Amdanga Deganga Habra Gaighata Bangaon Kulpi Magrahat Mathurapur	
Nadia	....	Chapra Nakasipara Kaliganj Tehatta Karimpur Santipur Chakdah Kotwali Nabadwip	Ranaghat Haringhata Hanskhali Krishnaganj
Murshidabad	Berhampur Raninagar Bhagwangola Lalgola Futi Raghunathganj	Domkal Jalangi Beldanga Hariharpara Nawda Nabagram Murshidabad	Burwan

## APPENDIX V—concl'd.

## Good and bad registration areas by districts of West Bengal: Death rate—Police Stations—1949—concl'd.

District	Below 15 p.m.	Between 15 to 25 p.m.	Above 25 p.m.
Murshidabad—contd.	....	Jiaganj Sagardighi Samserganj Bharatpur Kandi Khargram	
West Dinajpur	Gangarampur	Hili Tapan Kushmandi Balurghat Itahar	Kumarganj Raiganj Kaliaganj Hemtabad Bansihari
Jalpaiguri	Madarihat	Kotwali Mainaguri Alipur Duars Nagrakata Dhupguri Matiali Kalchini Falakata Kumargram	Rajganj Mal
Darjeeling	Kalimpong	Jore Bungalow Pulbazar Mirik Sukhiapokri Rangli Rangliot Garubathan Kurseong Siliguri	Sadar Phansidewa Kharibari
Malda	Kharba Harishchandrapur Kaliachak Ratua Gajol	Englishbazar Manikchak ....	Bamangola Habibpur Malda

*N.B.*—Municipalities having less than 10 p.m. birth rate and 15 p.m. death rate are bad registration areas.

Police Stations having less than 20 p.m. birth rate and 15 p.m. death rate are bad registration areas.

Places with more than 20 and 30 p.m. birth rate for Municipalities and Police Stations and more than 20 and 25 p.m. death rate for Municipalities and Police Stations respectively are good registration areas.



## List of Agents—contd.

[Continued from inner side of the front cover.]

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