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VOL. VI PART 1B

## VITAL STATISTICS WEST BENGAL 1941-1950



सममेव जयते

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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." 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 over column 7 | Column 8 in percentage to column 4 |
|---|-------------|-------------|---|----------------|----------------|--|---|------------------------------------|
| 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   | 1,066,380   | + 18,572  | 277,689        | 237,396        | + 40,293   | + 28,279  | 152                                |
| Bankura . . . . .                             | 1,289,640   | 1,319,259   | + 29,619  | 815,624        | 268,935        | + 546,689  | + 17,070  | 58                                 |
| Midnapur . . . . .                            | 3,190,647   | 3,359,022   | + 168,375   | 771,046        | 649,876        | + 121,170  | + 47,205  | 28                                 |
| Hooghly . . . . .                             | 1,377,729   | 1,554,320   | + 176,591   | 308,863        | 233,206        | + 75,657   | + 100,934   | 57                                 |
| Howrah . . . . .                              | 1,490,304   | 1,611,373   | + 121,069   | 244,837        | 257,270        | - 12,433   | + 133,502   | 110                                |
| 24-Parganas . . . . .                         | 3,669,490   | 4,609,309   | + 939,819   | 668,128        | 572,090        | + 96,038   | + 843,781   | 90                                 |
| Calcutta . . . . .                            | 2,108,891   | 2,548,677   | + 439,786   | 344,718        | 427,269        | - 82,551   | + 522,337   | 119                                |
| Nadia . . . . .                               | 840,303     | 1,144,924   | + 304,621   | 226,391        | 237,648        | - 11,257   | + 315,678   | 104                                |
| Murshidabad . . . . .                         | 1,040,530   | 1,715,759   | + 675,229   | 429,599        | 398,734        | + 30,865   | + 44,364  | 59                                 |
| West Dinajpur . . . . .                       | 583,484     | 720,573     | + 137,089   | 148,989        | 140,165        | + 8,824  | + 128,265   | 94                                 |
| Jalpaiguri . . . . .                          | 845,702     | 914,538     | + 68,836  | 231,953        | 215,589        | + 16,364   | + 52,472  | 76                                 |
| Darjeeling . . . . .                          | 376,369     | 445,260     | + 68,891  | 105,825        | 98,050         | + 7,775  | + 61,116  | 89                                 |
| Malda . . . . .                               | 844,315     | 937,580     | + 93,265  | 165,573        | 140,437        | + 25,136   | + 68,129  | 73                                 |
| TOTAL for West Bengal (excluding Cooch Behar) | 21,196,453  | 24,139,150  | + 2,942,697   | 4,660,984      | 4,298,879      | + 362,105  | + 2,580,592   | 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. (8) 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        | 287,306        | - 9,707    | + 16,496                | 243                             |
| Bankura . . . . .                             | 1,289,640   | 1,319,259   | + 29,619                 | 9,294                | + 20,325                       | 315,624        | 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 . . . . .                             | 1,377,729   | 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 . . . . .                            | 2,103,891   | 2,548,677   | + 444,786                | 433,228              | + 6,558                        | 344,718        | 427,269        | - 82,551   | + 89,100                | 1,359                           |
| Nadia . . . . .                               | 840,303     | 1,144,924   | + 304,621                | 426,907              | - 122,286                      | 226,391        | 237,648        | - 11,257   | - 111,029               | 91                              |
| Murshidabad . . . . .                         | 1,640,530   | 1,715,759   | + 75,229                 | 58,729               | + 16,500                       | 429,599        | 398,734        | + 30,865   | - 14,365                | 87                              |
| West Dinajpur . . . . .                       | 583,484     | 720,573     | + 137,089                | 1,16,510             | + 21,579                       | 148,989        | 140,166        | + 8,824    | + 12,755                | 59                              |
| Jalpaiguri . . . . .                          | 845,702     | 914,538     | + 68,836                 | 98,572               | - 29,736                       | 231,953        | 215,589        | + 16,364   | - 46,100                | 155                             |
| Darjeeling . . . . .                          | 376,369     | 445,260     | + 68,891                 | 15,738               | + 53,153                       | 105,825        | 98,050         | + 7,775    | + 45,378                | 85                              |
| Malda . . . . .                               | 844,315     | 937,580     | + 93,265                 | 60,168               | + 33,097                       | 165,573        | 140,437        | + 25,136   | + 7,931                 | 24                              |
| TOTAL for West Bengal (excluding Cooch Behar) | 21,196,453  | 24,139,150  | + 2,942,697              | 1,999,154            | + 943,543                      | 4,600,984      | 4,298,879      | + 302,105  | + 581,438               | 62.                             |

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 1948, 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  |
| Fevers excluding Malaria and Kala-azar . . . . .              | 66,843 | 59,076 | 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  |
| Sulcide . . . . .   | 552    | 539    | .05  | .1     | 2.5        | 2.6    | 2.5   |
| Child birth . . . . .   | ..     | 3,391  | ..   | .3     | ..         | 16.5   | 7.9   |
| Malaria . . . . .   | 51,923 | 50,747 | 4.5  | 5.2    | 231.7      | 246.6  | 233.9 |
| 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 | Fevers | Small-pox | Dysentery,<br>Diarrhoea<br>and Enteric<br>Group of<br>Fevers | Malaria | Kala-azar | T. B. of<br>Lungs |
|----------------|---------|--------|-----------|--|---------|-----------|-------------------|
| 1941 . . . . . | .7      | 9.2    | .4        | 1.2  | 4.0     | .08       | .38               |
| 1942 . . . . . | .5      | 8.5    | .05       | 1.1  | 4.0     | .07       | .31               |
| 1943 . . . . . | 2.7     | 15.3   | .1        | 1.9  | 7.8     | .09       | .32               |
| 1944 . . . . . | 1.0     | 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       | .34               |
| 1947 . . . . . | .5      | 9.6    | .1        | 1.3  | 3.9     | .14       | .36               |
| 1948 . . . . . | .6      | 9.1    | .4        | 1.3  | 3.6     | .14       | .38               |
| 1949 . . . . . | .6      | 8.7    | .1        | 1.3  | 3.6     | .12       | .37               |
| 1950 . . . . . | .8      | 7.7    | .6        | 1.8  | 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.

\* \* \*

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

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.)

"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 makeshift 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       | ..         |
| TOTAL . . . . .         | 9,320 | 908    | 150     | 54         |

| 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               |
| TOTAL . . . . .         | 100   | 92     | 204  | 776              |

STATEMENT 6

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

| Countries and Provinces              | Yields per acre<br>(in lb., 1924-33) | Countries and Provinces              | Yields per acre<br>(in lb., 1924-33) |
|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Italy . . . . . Rice                 | 2,903                                | Europe . . . . . Wheat               | 1,146                                |
| Japan . . . . . "                    | 2,276                                | Canada . . . . . "                   | 972                                  |
| 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<br>(in lb.) | Provinces                    |                       | Yields per acre<br>(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<br>acres per<br>cultivator | Country                     | Average size<br>of holdings<br>(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. . . . .            | 148.00                                    |
| 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<br>area held<br>per family<br>(in acres) | PER CENT. OF FAMILIES WITH |              |              |              |               |                   |
|-----------------------|--|----------------------------|--------------|--------------|--------------|---------------|-------------------|
|                       |  | Less than<br>2 acres       | 2—3<br>acres | 3—4<br>acres | 4—5<br>acres | 5—10<br>acres | Above 10<br>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          | 19.2          | 8.2               |
| Burdwan . . . . .     | 5.63   | 28.6                       | 10.9         | 8.9          | 10.8         | 28.6          | 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         | 13.4         | 33.2          | 20.4              |
| Malda* . . . . .      | 3.34   | 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               |
| Nadla* . . . . .      | 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<br>IN LBS. PER HEAD OF ANIMAL |          |      | APPROXIMATE ANNUAL EGG<br>PRODUCTION PER BIRD |      |
|-----------------------------|---|----------|------|---|------|
|                             | Cow   | Buffalo  | Goat | Fowl  | Duck |
| Assam . . . . .             | 170*  | 430*     | 80§  | 41†   | 39†  |
| Bihar . . . . .             | } 440*  | } 1,770* | 340§ | 60†   | 130† |
| Orissa . . . . .            |   |          | 200§ | 50†   | 127† |
| Central Province . . . . .  |   |          | 110§ | 48†   | 80†  |
| 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 . . . . .             | 5,857§  | ..       | ..   | 129.6†  | ..   |

\* Report on the Development of Cattle and Dairy Industries of India by N. 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.<br>(=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 . . . . .                            | <u>2,500 maunds daily.</u> |

## (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        | 0.87                                 | 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          | Burdwan . . . . .                    | 3.30                    | 708,080 gallons daily.       | 50,590                        | 360,110                         | 7.05   | 72,000                        | 440,408                         | 6.20   |
| 2          | Baniganj . . . . .                   | 1.85                    | 150,000 gallons in 12 hours. | 22,839                        | 153,393                         | 6.94   | 22,839                        | 200,349                         | 8.77   |
| 3          | Asansol . . . . .                    | 4.04                    | 364,000 gallons in 12 hours. | 43,006                        | 408,000                         | 8.50   | 43,006                        | 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                        | 77,051                          | 6.42   | 20,000                        | 100,458                         | 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                        | 518,612                         | 12.01  | 60,000                        | 457,548                         | 7.63   |
| 8          | Hooghly-Chinsurah . . . . .          | 5.00                    | 775,800 gallons daily.       | 49,081                        | 680,313                         | 13.46  | 49,081                        | 680,313                         | 13.46  |
| 9          | Bansberia . . . . .                  | 3.10                    | ..                           | 12,000                        | 149,224                         | 12.44  | 20,000                        | 189,792                         | 9.49   |
| 10         | Bhadreswar . . . . .                 | 1.90                    | ..                           | 25,673                        | 339,561                         | 13.23  | 27,673                        | 459,918                         | 16.98  |
| 11         | Champdany . . . . .                  | 1.65                    | ..                           | 31,333                        | 413,289                         | 12.98  | 31,333                        | 414,393                         | 13.02  |
| 12         | Serampur . . . . .                   | 2.27                    | 512,000 gallons in 16 hours. | 55,349                        | 543,726                         | 9.82   | 80,000                        | 674,000                         | 8.42   |
| 13         | Uttarpara . . . . .                  | 0.80                    | ..                           | 13,610                        | 127,697                         | 9.38   | 20,000                        | 133,072                         | 6.65   |
| 14         | Howrah . . . . .                     | 10.10                   | ..                           | 379,292                       | 4,149,161                       | 10.94  | 379,292                       | 4,137,095                       | 10.91  |
| 15         | Garden Reach (in progress) . . . . . | ..                      | ..                           | ..                            | ..                              | ..   | 125,000                       | 610,000                         | 4.08   |
| 16         | Tollyganj . . . . .                  | 5.15                    | ..                           | 32,000                        | 240,309                         | 7.51   | 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                          |                                 |  | 1946                          |                                 |  |  |
|------------|--------------------------------------|-------------------------|--|-------------------------------|---------------------------------|--|-------------------------------|---------------------------------|--|--|
|            |                                      |                         |  | 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 Subardan . . . . .             | 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-Kamarhati . . . . .        | 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   | 180,000                       | 1,149,279                       | 7.18   |  |
| 23         | Titagarh . . . . .                   | 1.50                    | ..   | 57,416                        | 1,042,160                       | 33.83  | 57,416                        | 1,907,320                       | 83.23  |  |
| 24         | Barrackpore . . . . .                | 4.50                    | ..   | ..                            | ..                              | ..   | 38,444                        | ..                              | ..   |  |
| 25         | Barrackpore Cantonment . . . . .     | ..                      | ..   | ..                            | ..                              | ..   | 13,921                        | ..                              | ..   |  |
| 26         | Garulia . . . . .                    | 1.50                    | ..   | 20,000                        | 193,200                         | 9.66   | 30,000                        | 177,978                         | ..   |  |
| 27         | Hallsahar . . . . .                  | 5.50                    | ..   | ..                            | ..                              | ..   | 35,438                        | ..                              | ..   |  |
| 28         | Nalhati . . . . .                    | 1.68                    | ..   | 42,263                        | 282,137                         | 6.69   | 42,163                        | 248,767                         | 5.90   |  |
| 29         | Kanchrapara Railway Colony . . . . . | 2.00                    | ..   | ..                            | ..                              | ..   | 30,000                        | ..                              | ..   |  |
| 30         | Krishnagar . . . . .                 | 7.50                    | ..   | 32,000                        | 407,621                         | 12.74  | 80,000                        | 600,000                         | 6.25   |  |
| 31         | Nabadwip . . . . .                   | 1.60                    | ..   | 30,553                        | 23,854                          | 0.78   | 80,000                        | 56,000                          | 0.70   |  |
| 32         | Berhampur . . . . .                  | 6.60                    | 612,000 gallons daily.                                 | 40,804                        | 353,672                         | 8.67   | 70,000                        | 375,802                         | 5.37   |  |
| 33         | Englishbazar . . . . .               | 1.50                    | 112,000 gallons in 8 hours (can run 16 hours).         | 15,866                        | 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   | 28,000                        | 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         | Kaltimpong . . . . .                 | 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                | 488     | 450                  |
| From 1946-47 to 1950 . . . . . |                                     | 138               | 2,063   | 3,011                |
|                                |                                     |                   |         | 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    | 1.323    |
| 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    | 0.148    |
| 20 Other refreshment . . . . .   | "      | ..       | ..       | ..       |
| 21 Total food . . . . .          | "      | ..       | ..       | ..       |
| 22 Coal . . . . .                | Maund  | 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 (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  | 132.0*                    |
| 7          | Fish                 | 56   | 23.0     | 2.5     | 17.8    | ..            | 12.6    | 16.7              | 31.0                                   | 36.0   | 47.0  | ..                        |
| 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    | 93.0          | 22.1    | 28.3              | 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              | ..                                     | ..   | ..  | ..                        |
| 16         | Onion                | ..   | ..       | ..      | ..      | ..            | ..      | ..                | ..                                     | 6.0  | 7.0   | ..                        |
| 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  | 2,325.0 | 2,479.6 | 2,768.8       | 3,384.0 | 3,201.5           | 1,989.0                                | 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         |      |              |          | OUTSIDE CALCUTTA SALARY LEVEL 0-150 |            |                           |
|------------|----------------------|---|-------------------|------|--------------|----------|-------------------------------------|------------|---------------------------|
|            |                      |   | DIVISION I AND II |      | DIVISION III |          | Calcutta expenditure level 201-250  | 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              | 8.00 | ..           | ..       | 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     | 2.00  | ..                | ..   | ..           | ..       | ..                                  | ..         | ..                        |
| 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  | ..           | ..       | ..                                  | ..         | ..                        |
| 8          | Onion                | ..  | ..                | ..   | ..           | ..       | 1.08                                | 0.60       | 0.78                      |
| 9          | Milk                 | ..  | ..                | ..   | ..           | ..       | ..                                  | 0.16       | 0.21                      |
| 10         | Milk products        | 5.00  | 1.00              | 1.00 | ..           | ..       | 1.64                                | 1.57       | 2.04                      |
| 11         | Sugar                | ..  | 2.00              | ..   | ..           | ..       | ..                                  | ..         | ..                        |
| 12         | Gur                  | 0.50  | 1.00              | 1.00 | ..           | ..       | 0.52                                | 0.39       | 0.51                      |
| 13         | Edible oil           | 0.75  | 0.25              | ..   | ..           | ..       | 0.14                                | 0.13       | 0.17                      |
| 14         | Ghee                 | 0.25  | 0.50              | 0.25 | 0.30         | 0.30     | 0.39                                | 0.32       | 0.42                      |
| 15         | Fish                 | 1.00  | 0.75              | ..   | ..           | ..       | ..                                  | 0.05       | 0.07                      |
| 16         | Meat                 | 1.50  | 2.00              | 5.00 | ..           | ..       | 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     | 184     | 101     | 58      | 89            |   |
| Number of persons . . . . .      | 113   | 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   | 16.00   | 17.72         |   |
| Clothing . . . . .               | 0.83  | 1.35   | 1.85    | 2.19    | 2.51    | 3.23    | 3.41    | 3.76          |   |
| Fuel and light . . . . .         | 1.48  | 1.06   | 2.09    | 2.15    | 2.29    | 12.49   | 2.75    | 2.55          |   |
| Housing . . . . .                | 0.17  | 0.57   | 0.76    | 0.85    | 0.94    | 0.86    | 1.07    | 0.98          |   |
| Miscellaneous . . . . .          | 2.48  | 3.20   | 4.30    | 5.10    | 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    | Both Sexes   | Male     | Female   | Both Sexes | Male  | Both Sexes | Male  | Female |
| Total 1941-50 | 4,600,984        | 2,419,792 | 2,241,192        | 4,298,879  | 2,240,765  | 2,058,114 | -178,000   | -182,651 | +382,105   | +382,105   | 926.2   | 926.2      | 918.5   | 918.5  |
| 1940          | 444,548          | 250,014   | 214,520          | 356,848    | 185,446  | 171,397   | -13,465  | -14,049  | +87,700  | +87,700    | 927.7   | 927.7      | 924.2   | 924.2  |
| 1941          | 488,168          | 263,200   | 234,953          | 379,548    | 190,119  | 182,443   | -18,247  | -7,873   | +116,594   | +116,594   | 927.9   | 927.9      | 925.6   | 925.6  |
| 1942          | 483,504          | 255,710   | 217,854          | 385,978    | 198,401  | 186,877   | -17,856  | -11,524  | +88,286  | +88,286    | 924.2   | 924.2      | 941.9   | 941.9  |
| 1943          | 437,765          | 232,184   | 203,571          | 387,146    | 201,092  | 186,103   | -16,613  | -14,959  | +40,590  | +40,590    | 925.2   | 925.2      | 925.6   | 925.6  |
| 1944          | 524,365          | 271,868   | 252,497          | 414,687    | 238,351  | 216,356   | -19,371  | -17,975  | +109,678   | +109,678   | 928.7   | 928.7      | 916.0   | 916.0  |
| 1945          | 457,366          | 248,616   | 218,840          | 418,600    | 233,312  | 216,288   | -19,676  | -18,024  | +8,766   | +8,766     | 917.5   | 917.5      | 922.7   | 922.7  |
| 1946          | 377,376          | 196,160   | 181,216          | 577,975    | 300,429  | 276,946   | -14,944  | -23,483  | +199,999   | +199,999   | 923.8   | 923.8      | 921.8   | 921.8  |
| 1947          | 440,014          | 228,712   | 211,302          | 624,248    | 352,182  | 292,084   | -17,410  | -40,098  | +154,252   | +154,252   | 923.9   | 923.9      | 879.3   | 879.3  |
| 1948          | 506,578          | 263,103   | 243,475          | 847,486    | 432,313  | 385,673   | -19,628  | -16,740  | +158,692   | +158,692   | 925.4   | 925.4      | 908.2   | 908.2  |
| 1949          | 541,280          | 280,325   | 260,955          | 384,220    | 201,173  | 183,047   | -19,370  | -18,126  | +157,060   | +157,060   | 930.9   | 930.9      | 909.9   | 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  | Both Sexes   | Male    | Female   | Both Sexes | Male  | Both Sexes | Male  | Female |
| <b>WEST BENGAL STATE</b>   | 541,280          | 280,325 | 260,955          | 384,220    | 201,173  | 183,047 | -19,370  | -18,126 | +157,060   | +157,060   | 930.9   | 930.9      | 909.9   | 909.9  |
| Burdwan Division           | 270,526          | 139,615 | 130,911          | 183,947    | 95,486   | 86,451  | -8,704   | -7,045  | +86,579  | +86,579    | 937.7   | 937.7      | 933.2   | 933.2  |
| Burdwan                    | 50,486           | 25,925  | 24,573           | 36,518     | 19,146   | 17,370  | -1,852   | -1,778  | +13,980  | +13,980    | 947.8   | 947.8      | 907.1   | 907.1  |
| Birbhum                    | 85,124           | 43,353  | 41,771           | 61,173     | 31,047   | 29,126  | -1,921   | -1,803  | +11,961  | +11,961    | 982.3   | 982.3      | 923.5   | 923.5  |
| Bankura                    | 36,980           | 18,803  | 18,083           | 23,173     | 12,047   | 11,126  | -921   | -856    | +9,888   | +9,888     | 964.0   | 964.0      | 939.6   | 939.6  |
| Midnapur                   | 82,120           | 42,023  | 40,097           | 64,342     | 27,954   | 26,388  | -1,566   | -1,566  | +27,778  | +27,778    | 954.2   | 954.2      | 944.0   | 944.0  |
| Hooghly                    | 39,450           | 19,114  | 17,880           | 52,216     | 25,216   | 23,708  | -1,508   | -1,778  | +800   | +800       | 906.8   | 906.8      | 930.5   | 930.5  |
| Howrah                     | 29,404           | 16,397  | 14,007           | 20,656     | 10,800   | 9,766   | -1,890   | -1,124  | +8,748   | +8,748     | 909.7   | 909.7      | 896.8   | 896.8  |
| <b>Presidency Division</b> | 270,754          | 140,710 | 130,044          | 300,273    | 105,677  | 94,586  | -10,686  | -11,081 | +70,481  | +70,481    | 924.3   | 924.3      | 895.1   | 895.1  |
| 24-Parganas                | 86,116           | 46,151  | 42,965           | 68,226     | 36,245   | 27,981  | -3,186   | -2,264  | +30,890  | +30,890    | 931.0   | 931.0      | 925.1   | 925.1  |
| Calcutta                   | 29,290           | 16,033  | 13,257           | 36,176     | 19,713   | 10,463  | -2,776   | -3,250  | +6,880   | +6,880     | 926.0   | 926.0      | 835.1   | 835.1  |
| Nadia                      | 27,458           | 14,202  | 13,256           | 31,756     | 11,408   | 9,946   | -946   | -1,060  | +5,702   | +5,702     | 933.4   | 933.4      | 907.1   | 907.1  |
| Murshidabad                | 66,768           | 29,323  | 27,446           | 81,481     | 31,481   | 28,802  | -2,679   | -2,683  | +25,337  | +25,337    | 926.0   | 926.0      | 864.0   | 864.0  |
| Malda                      | 15,068           | 7,824   | 7,244            | 10,166     | 5,491  | 4,705   | -766   | -766    | +4,902   | +4,902     | 925.9   | 925.9      | 861.6   | 861.6  |
| West Dinajpur              | 16,816           | 8,010   | 7,506            | 11,362     | 5,990  | 5,372   | -618   | -618    | +4,454   | +4,454     | 974.5   | 974.5      | 896.8   | 896.8  |
| Jajraipuri                 | 25,930           | 13,267  | 12,663           | 20,430     | 10,432   | 10,017  | -415   | -415    | +5,491   | +5,491     | 934.5   | 934.5      | 961.1   | 961.1  |
| Darjeeling                 | 11,808           | 5,900   | 5,408            | 10,717     | 5,576  | 5,141   | -415   | -415    | +5,91  | +5,91      | 916.6   | 916.6      | 922.0   | 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       |         | Female  |         | Both Sexes       |         | Female        |         |  |  |  |   |   |
|                            | 2                | 3       | 4       | 5       | 6                | 7       | 8             | 9       |  |  |  |   |   |
| <b>WEST BENGAL STATE</b>   | 506,575          | 263,103 | 243,475 | 347,886 | 182,313          | 165,573 | -19,828       | -16,740 | +168,662   | 925.4  | 908.2  |   |   |
| <b>Burdwan Division</b>    | 259,897          | 134,089 | 125,868 | 171,343 | 88,206           | 83,137  | -8,181        | -5,069  | +89,554  | 939.0  | 942.6  |   |   |
| Burdwan                    | 52,345           | 27,041  | 25,304  | 34,801  | 17,861           | 16,440  | -1,737        | -1,421  | +18,044  | 935.8  | 920.4  |   |   |
| Birbhum                    | 37,098           | 18,672  | 18,426  | 22,840  | 11,574           | 11,266  | -246          | -308    | +14,258  | 936.8  | 978.4  |   |   |
| Bankura                    | 38,816           | 18,790  | 18,026  | 25,381  | 12,937           | 12,444  | -784          | -498    | +13,435  | 961.4  | 931.9  |   |   |
| Midnapur                   | 71,786           | 36,901  | 34,885  | 50,435  | 25,766           | 24,869  | -2,016        | -897    | +21,151  | 945.4  | 949.2  |   |   |
| Hooghly                    | 36,824           | 19,250  | 17,074  | 21,159  | 11,069           | 10,080  | -2,176        | -979    | +15,165  | 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> | 246,681          | 129,064 | 117,617 | 176,543 | 94,107           | 82,436  | -11,447       | -11,671 | +70,188  | 911.4  | 876.0  |   |   |
| 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                   | 19,337           | 11,359  | 8,478   | 24,504  | 14,473           | 10,121  | -2,881        | -4,757  | +4,757   | 746.4  | 699.3  |   |   |
| Nadia                      | 30,106           | 15,666  | 14,440  | 21,882  | 11,844           | 10,538  | -1,226        | -806    | +8,224   | 921.7  | 928.9  |   |   |
| Murshidabad                | 52,118           | 28,970  | 26,746  | 33,333  | 17,413           | 15,920  | -1,624        | -1,493  | +21,783  | 942.8  | 914.3  |   |   |
| West Dinajpur              | 12,410           | 6,310   | 5,809   | 6,808   | 3,350            | 2,949   | -501          | -410    | +6,811   | 920.6  | 877.9  |   |   |
| West Dinalpur              | 32,522           | 16,810  | 15,310  | 20,953  | 9,387            | 8,466   | -1,844        | -1,221  | +8,469   | 973.7  | 921.8  |   |   |
| Jalpaiguri                 | 26,789           | 12,954  | 11,853  | 19,902  | 10,311           | 9,691   | -620          | -520    | +8,887   | 937.2  | 949.1  |   |   |
| Darjeeling                 | 10,568           | 5,533   | 5,276   | 10,273  | 5,476            | 4,767   | -253          | -679    | +535   | 953.4  | 876.0  |   |   |
| Cooch Behar                |                  |         |         |         |                  |         | Not available |         |  |  |  |   |   |

**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       |         | Female  |         | Both Sexes       |         | Female        |         |  |  |  |   |   |
|                            | 2                | 3       | 4       | 5       | 6                | 7       | 8             | 9       |  |  |  |   |   |
| <b>WEST BENGAL STATE</b>   | 3440,014         | 228,712 | 211,802 | 624,266 | 332,132          | 292,064 | -17,410       | -40,088 | -184,282   | 923.9  | 879.3  |   |   |
| <b>Burdwan Division</b>    | 242,106          | 125,323 | 116,783 | 315,035 | 168,021          | 147,014 | -8,540        | -21,007 | -92,929  | 931.9  | 875.0  |   |   |
| Burdwan                    | 42,323           | 21,837  | 20,491  | 47,487  | 24,842           | 22,625  | -1,346        | -2,217  | -5,139   | 939.4  | 910.8  |   |   |
| Birbhum                    | 33,221           | 16,939  | 16,232  | 40,489  | 20,612           | 19,877  | -757          | -735    | -726   | 952.4  | 964.3  |   |   |
| Bankura                    | 33,808           | 17,358  | 16,420  | 40,170  | 20,883           | 19,287  | -988          | -1,598  | -6,362   | 944.3  | 923.6  |   |   |
| Midnapur                   | 74,319           | 38,500  | 35,519  | 124,736 | 67,247           | 57,422  | -2,681        | -9,755  | -60,420  | 830.4  | 854.9  |   |   |
| Hooghly                    | 32,840           | 17,186  | 15,674  | 34,496  | 14,610           | 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  | 766.6  |   |   |
| <b>Presidency Division</b> | 197,998          | 103,389 | 94,519  | 309,231 | 164,161          | 145,070 | -8,870        | -19,091 | -111,323   | 914.2  | 883.7  |   |   |
| 24-Parganas                | 63,901           | 33,854  | 30,047  | 91,213  | 51,879           | 39,834  | -3,807        | -11,545 | -27,312  | 887.5  | 775.3  |   |   |
| Calcutta                   | 20,658           | 11,394  | 9,264   | 27,709  | 14,706           | 12,569  | -2,180        | -8,150  | -31,610  | 891.3  | 886.3  |   |   |
| Nadia                      | 23,041           | 11,946  | 11,065  | 38,840  | 19,706           | 16,184  | -851          | -572    | -16,799  | 928.8  | 971.0  |   |   |
| Murshidabad                | 36,741           | 18,956  | 17,785  | 65,073  | 33,131           | 31,942  | -1,171        | -1,189  | -28,332  | 938.2  | 964.1  |   |   |
| Malda                      | 9,048            | 4,273   | 4,048   | 11,317  | 5,891            | 5,426   | -502          | -465    | -2,269   | 894.9  | 921.1  |   |   |
| West Dinajpur              | 14,989           | 7,575   | 7,118   | 19,458  | 9,571            | 8,642   | -929          | -626    | -2,631   | 979.8  | 904.3  |   |   |
| Jalpaiguri                 | 19,842           | 9,986   | 9,850   | 26,804  | 13,933           | 13,871  | -130          | -1,062  | -6,362   | 987.0  | 923.8  |   |   |
| Darjeeling                 | 9,688            | 4,907   | 4,781   | 11,258  | 5,870            | 5,385   | -482          | -482    | -1,570   | 974.3  | 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       |         | Both Sexes       |         |  |  |  |   |   |       |         |
|                     | Male             | Female  | Male             | Female  |  |  |  |   |   |       |         |
| 1                   | 2                | 3       | 4                | 5       | 6  | 7  | 8  | 9   | 10  | 11    | 12      |
| WEST BENGAL STATE   | 377,376          | 196,160 | 181,216          | 677,376 | 300,429  | 276,946  | -14,944  | -23,433                                       | -199,939                                      | 893.8 | 921.8   |
| Burdwan Division    | 203,427          | 105,894 | 98,933           | 299,690 | 137,764  | 131,866  | -7,861   | -5,868  | -66,233                                       | 930.2 | 957.4   |
| Burdwan             | 35,937           | 18,321  | 17,036           | 45,651  | 25,046   | 23,605   | -1,285   | -1,441  | -13,394                                       | 939.0 | 942.6   |
| Birbhum             | 21,601           | 11,183  | 10,508           | 41,200  | 20,244   | 20,956   | 712  | 712   | -10,509                                       | 939.6 | 1,035.2 |
| Baokura             | 24,160           | 12,656  | 11,604           | 31,434  | 15,885   | 15,599   | -652   | 296   | -7,924  | 924.2 | 982.0   |
| Midnapur            | 65,762           | 34,058  | 31,736           | 79,124  | 40,769   | 38,365   | -2,394   | 2,824   | -18,332                                       | 931.8 | 941.3   |
| Hooghly             | 25,010           | 14,939  | 13,971           | 29,385  | 15,160   | 14,255   | -905   | 935   | -775  | 918.1 | 938.3   |
| Howrah              | 27,817           | 14,337  | 13,450           | 39,816  | 20,070   | 18,146   | -1,657   | 1,654   | -11,909                                       | 940.2 | 928.3   |
| Presidency Division | 178,949          | 90,766  | 83,183           | 207,715 | 102,665  | 145,050  | -7,583   | -17,615                                       | -133,766                                      | 916.5 | 891.8   |
| 24-Parganas         | 51,643           | 27,152  | 24,491           | 84,418  | 45,236   | 39,132   | -2,601   | 6,034   | -32,775                                       | 902.0 | 866.2   |
| Calcutta            | 21,931           | 11,699  | 10,343           | 52,945  | 29,602   | 23,243   | -1,447   | 6,359   | -30,914                                       | 876.2 | 786.2   |
| Nadia               | 16,740           | 8,733   | 8,007            | 30,768  | 15,651   | 14,917   | -726   | 934   | -14,058                                       | 916.9 | 941.1   |
| Murshidabad         | 29,123           | 15,051  | 14,073           | 36,016  | 23,226   | 25,090   | 1,789  | 739   | -27,763                                       | 935.0 | 974.5   |
| Malda               | 16,168           | 8,443   | 7,713            | 26,351  | 13,334   | 13,017   | -317   | 1,871   | -9,189  | 912.9 | 901.2   |
| West Dinajpur       | 14,591           | 7,588   | 7,053            | 18,574  | 9,556  | 9,918  | 485  | 735   | -3,383  | 935.7 | 923.6   |
| Jalpaiguri          | 16,116           | 8,278   | 7,840            | 27,315  | 14,147   | 13,169   | -978   | 979   | -11,199                                       | 947.3 | 930.8   |
| Darjeeling          | 7,043            | 3,878   | 3,765            | 11,523  | 6,013  | 5,915  | -113   | 493   | -3,355  | 970.9 | 917.3   |
| 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       |         | Both Sexes       |         |  |  |  |   |   |       |         |
|                     | Male             | Female  | Male             | Female  |  |  |  |   |   |       |         |
| 1                   | 2                | 3       | 4                | 5       | 6  | 7  | 8  | 9   | 10  | 11    | 12      |
| WEST BENGAL STATE   | 487,366          | 233,516 | 218,840          | 443,600 | 233,312  | 215,268  | -19,979  | -18,024                                       | + 6,756                                       | 917.5 | 932.7   |
| Burdwan Division    | 236,307          | 123,384 | 112,923          | 294,559 | 154,185  | 150,425  | -9,461   | -8,740  | +30,717                                       | 923.7 | 964.1   |
| Burdwan             | 39,797           | 20,176  | 18,621           | 86,385  | 45,378   | 43,712   | -1,555   | 961   | + 2,412                                       | 922.9 | 950.4   |
| Birbhum             | 24,626           | 12,664  | 11,962           | 29,947  | 14,766   | 15,181   | 702  | 415   | + 6,321                                       | 944.0 | 1,028.1 |
| Baokura             | 31,163           | 16,084  | 15,070           | 25,013  | 13,640   | 13,378   | -1,005   | 1,167   | + 2,250                                       | 937.5 | 918.3   |
| Midnapur            | 86,249           | 44,815  | 40,684           | 57,561  | 29,078   | 28,433   | -3,981   | 885   | + 27,668                                      | 923.7 | 979.1   |
| Hooghly             | 28,892           | 16,156  | 15,797           | 25,071  | 13,096   | 12,575   | -1,418   | 231   | + 2,921                                       | 906.4 | 968.1   |
| Howrah              | 26,580           | 13,990  | 12,590           | 28,813  | 15,012   | 13,801   | -1,400   | 1,211   | - 2,233                                       | 899.9 | 919.3   |
| Presidency Division | 222,049          | 116,132 | 105,917          | 344,010 | 189,147  | 174,863  | -10,215  | -14,284                                       | -21,961                                       | 912.0 | 889.4   |
| 24-Parganas         | 63,918           | 33,731  | 30,187           | 67,778  | 36,300   | 27,478   | -9,544   | -2,892  | + 0,140                                       | 864.9 | 906.4   |
| Calcutta            | 27,728           | 14,616  | 13,112           | 41,578  | 23,324   | 15,064   | -1,704   | 5,770   | + 14,150                                      | 897.1 | 757.8   |
| Nadia               | 23,834           | 12,670  | 11,264           | 24,751  | 12,860   | 11,887   | -1,309   | 1,049   | - 917   | 886.1 | 824.7   |
| Murshidabad         | 44,436           | 22,989  | 21,427           | 48,617  | 24,980   | 23,684   | -1,573   | 1,243   | - 4,131                                       | 891.7 | 950.1   |
| Malda               | 20,228           | 10,228  | 9,008            | 20,680  | 10,498   | 9,455  | -1,072   | 1,400   | + 3,682                                       | 904.7 | 966.3   |
| West Dinajpur       | 13,043           | 6,809   | 6,234            | 16,800  | 8,515  | 7,925  | -572   | 651   | - 823   | 915.6 | 900.8   |
| Jalpaiguri          | 13,676           | 6,459   | 6,090            | 16,576  | 8,315  | 7,832  | -483   | 823   | - 3,023                                       | 934.2 | 934.2   |
| Darjeeling          | 24,297           | 12,307  | 11,482           | 24,297  | 12,307   | 11,482   |  |   |   |       |         |
| Cooch Behar         | 10,237           | 5,302   | 4,985            | 10,938  | 5,072  | 4,266  | -307   | 400   | - 641   | 942.1 | 923.4   |



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       | Female  | Both Sexes       | Female  |  |  |  |   |   |       |         |
| 1                          | 2                | 3       | 4                | 5       | 6  | 7  | 8  | 9   | 10  | 11    | 12      |
| <b>WEST BENGAL STATE</b>   | 453,564          | 235,710 | 217,854          | 385,978 | 193,401  | 186,877  | -17,856  | -11,524                                       | +48,236                                       | 924.3 | 941.9   |
| <b>Burdwan Division</b>    | 214,555          | 111,140 | 103,415          | 188,424 | 95,192   | 93,231   | -7,725   | -1,962  | +26,131                                       | 930.5 | 973.4   |
| Burdwan                    | 37,171           | 19,303  | 17,868           | 34,344  | 17,538   | 17,306   | -1,435   | -232  | +2,327  | 925.7 | 980.8   |
| Birbhum                    | 26,247           | 13,302  | 12,945           | 25,997  | 11,631   | 11,466   | -357   | -65   | +8,250  | 973.2 | 994.4   |
| Bankura                    | 27,480           | 14,202  | 13,278           | 24,529  | 12,551   | 11,978   | -924   | -578  | +2,951  | 984.9 | 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   | -862  | +4,280  | 906.0 | 968.0   |
| Howrah                     | 20,572           | 10,803  | 9,769            | 24,497  | 12,625   | 11,872   | -1,034   | -753  | +8,925  | 904.3 | 940.4   |
| <b>Presidency Division</b> | 239,000          | 124,570 | 114,439          | 196,854 | 103,208  | 93,646   | -10,131  | -9,692  | +42,655                                       | 918.7 | 907.4   |
| 24-Parganas                | 61,868           | 32,654  | 29,214           | 49,105  | 25,025   | 23,480   | -3,440   | -2,145  | +12,763                                       | 894.7 | 916.3   |
| Calcutta                   | 40,342           | 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           | 19,082  | 9,615  | 9,417  | -999   | -198  | +2,748  | 912.3 | 973.4   |
| Murshidabad                | 43,026           | 21,644  | 20,382           | 28,546  | 14,704   | 13,842   | -1,262   | -802  | +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 | 828.7   |
| West Dinajpur              | 14,384           | 7,434   | 6,950            | 12,883  | 6,986  | 5,897  | -484   | -1,089  | +1,501  | 834.9 | 844.1   |
| Jaipalguri                 | 26,897           | 13,720  | 13,177           | 18,167  | 9,381  | 8,786  | -548   | -595  | +8,730  | 900.4 | 936.9   |
| Darjeeling                 | 11,318           | 5,776   | 5,542            | 8,762   | 4,469  | 4,283  | -234   | -176  | +2,566  | 959.5 | 980.4   |

Not available

Cooch Behar

**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>489,163</b>   | <b>252,200</b> | <b>234,953</b>   | <b>372,559</b> | <b>190,119</b>   | <b>182,443</b>   | <b>-18,247</b>   | <b>-7,873</b>                                 | <b>+115,594</b>                               | <b>927.9</b> | <b>889.6</b> |
| <b>Burdwan Division</b>    | <b>294,505</b>   | <b>116,649</b> | <b>107,856</b>   | <b>183,026</b> | <b>92,111</b>  | <b>90,815</b>  | <b>-1,407</b>  | <b>-1,196</b>                                 | <b>+41,479</b>                                | <b>924.6</b> | <b>887.0</b> |
| Burdwan                    | 40,116           | 20,761         | 19,354           | 32,520         | 16,453   | 16,067   | 1,407  | 386   | 7,595   | 832.2        | 976.5        |
| Birbhum                    | 26,588           | 13,672         | 12,916           | 24,080         | 12,244   | 12,436   | 766  | 192   | 1,908   | 944.7        | 1,015.7      |
| Bankura                    | 29,946           | 15,697         | 14,348           | 28,156         | 11,779   | 11,377   | 1,249  | 402   | 6,789   | 919.9        | 965.9        |
| Midnapur                   | 78,368           | 40,573         | 37,793           | 59,949         | 29,722   | 30,227   | 2,749  | 505   | 18,417  | 931.5        | 1,017.0      |
| Hooghly                    | 27,804           | 14,570         | 13,234           | 20,645         | 10,560   | 10,085   | 1,336  | 475   | 7,159   | 908.3        | 855.0        |
| Howrah                     | 21,687           | 11,476         | 10,211           | 22,076         | 11,353   | 10,723   | 1,265  | 630   | 389   | 889.8        | 844.2        |
| <b>Presidency Division</b> | <b>263,648</b>   | <b>136,551</b> | <b>127,997</b>   | <b>189,533</b> | <b>98,005</b>  | <b>91,628</b>  | <b>-9,054</b>  | <b>-6,477</b>                                 | <b>+74,115</b>                                | <b>930.8</b> | <b>893.9</b> |
| 24-Parganas                | 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           | 41,862         | 22,523   | 19,339   | 1,899  | 3,184   | 15,653  | 936.1        | 858.6        |
| Nadia                      | 20,790           | 10,803         | 10,003           | 10,147         | 9,493  | 9,654  | 784  | 161   | 1,643   | 927.3        | 1,017.0      |
| Murshidabad                | 43,680           | 22,665         | 21,015           | 28,566         | 14,246   | 14,220   | 1,650  | 126   | 15,114  | 927.2        | 991.2        |
| Malda                      | 21,097           | 11,192         | 9,965            | 12,684         | 6,648  | 6,100  | 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        | 873.3        |
| Jalpaiguri                 | 27,093           | 13,725         | 12,368           | 18,201         | 9,171  | 9,080  | 357  | 141   | 8,892   | 974.0        | 984.6        |
| Darjeeling                 | 11,588           | 5,886          | 5,707            | 8,266          | 4,215  | 4,061  | 179  | 164   | 3,327   | 969.6        | 961.1        |
| 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>290,014</b> | <b>214,529</b>   | <b>356,843</b> | <b>185,446</b>   | <b>171,397</b>   | <b>-15,455</b>   | <b>-14,049</b>                                | <b>+87,700</b>                                | <b>932.7</b> | <b>924.2</b> |
| <b>Burdwan Division</b>    | <b>293,626</b>   | <b>106,086</b> | <b>97,540</b>    | <b>169,461</b> | <b>86,463</b>  | <b>81,998</b>  | <b>-4,465</b>  | <b>-4,465</b>                                 | <b>+35,165</b>                                | <b>919.4</b> | <b>948.4</b> |
| Burdwan                    | 36,479           | 18,377         | 17,102           | 30,395         | 15,790   | 14,606   | 1,275  | 1,185   | 5,084   | 930.6        | 925.0        |
| Birbhum                    | 26,451           | 16,499         | 9,932            | 23,406         | 11,568   | 11,537   | 567  | 332   | 2,975   | 946.0        | 972.0        |
| Bankura                    | 26,421           | 13,187         | 12,234           | 21,484         | 11,253   | 10,231   | 953  | 1,022   | 3,937   | 927.7        | 909.2        |
| Midnapur                   | 74,704           | 36,783         | 35,971           | 58,340         | 27,154   | 26,186   | 2,702  | 968   | 21,364  | 928.7        | 944.4        |
| Hooghly                    | 26,254           | 13,864         | 12,390           | 18,947         | 9,998  | 8,949  | 1,474  | 1,049   | 7,307   | 893.7        | 895.1        |
| Howrah                     | 21,837           | 11,426         | 9,911            | 20,889         | 10,399   | 10,490   | 1,515  | 91  | 448   | 867.4        | 1,008.5      |
| <b>Presidency Division</b> | <b>240,917</b>   | <b>123,928</b> | <b>116,989</b>   | <b>188,382</b> | <b>98,989</b>  | <b>89,399</b>  | <b>-6,939</b>  | <b>-6,854</b>                                 | <b>+52,535</b>                                | <b>944.0</b> | <b>903.2</b> |
| 24-Parganas                | 58,689           | 31,161         | 27,508           | 40,483         | 21,483   | 19,050   | 3,618  | 2,383   | 18,186  | 882.8        | 868.8        |
| Calcutta                   | 60,802           | 31,242         | 29,560           | 52,196         | 27,350   | 24,846   | 1,689  | 2,504   | 8,606   | 940.2        | 908.4        |
| Nadia                      | 15,595           | 8,389          | 7,206            | 16,807         | 8,641  | 8,169  | 1,183  | 575   | 1,212   | 911.3        | 945.0        |
| Murshidabad                | 39,205           | 19,261         | 19,944           | 25,587         | 13,406   | 12,181   | 1,688  | 1,225   | 13,918  | 1,036.5      | 908.6        |
| Malda                      | 18,020           | 9,698          | 8,322            | 12,455         | 6,814  | 5,611  | 1,370  | 1,173   | 6,565   | 865.1        | 827.9        |
| West Dinajpur              | 13,122           | 6,856          | 6,266            | 12,718         | 7,246  | 6,472  | 560  | 774   | 566   | 913.9        | 893.2        |
| Jalpaiguri                 | 24,275           | 12,605         | 11,580           | 18,594         | 9,482  | 8,902  | 1,116  | 590   | 5,881   | 912.2        | 937.8        |
| Darjeeling                 | 11,229           | 5,809          | 5,420            | 8,742          | 4,601  | 4,141  | 389  | 400   | 2,487   | 933.0        | 900.0        |
| Cooch Behar                | .                | .              | .                | .              | .  | Not available  | .  | .   | .   | .            | .            |





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  | 8.8    |
| Birbhum       | 13.5          | 12.9   | 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       | 12.4          | 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    | 10.8 | 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  | 6.9    | 9.2  | 8.2    | 10.6 | 9.5    | 8.4  | 7.5    | 8.8  | 7.8    | 9.0  | 8.2    | 8.3  | 7.3    |
| Nadia         | 13.4          | 12.6   | 16.9 | 15.7   | 17.6 | 16.2   | 13.8 | 12.4   | 10.1 | 9.2    | 14.6 | 13.1   | 15.2 | 14.7   | 12.8 | 11.7   | 13.2 | 12.0   | 14.8 | 13.9   | 15.4 | 14.6   |
| Murshidabad   | 13.5          | 11.4   | 17.8 | 16.7   | 17.0 | 16.0   | 11.2 | 10.5   | 9.3  | 8.6    | 14.2 | 13.2   | 15.1 | 14.2   | 11.2 | 10.3   | 13.3 | 12.5   | 13.8 | 12.8   | 11.0 | 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    | 12.8 | 11.1   | 12.7 | 11.3   | 11.0 | 9.4    |
| West Dinaipur | 13.1          | 12.4   | 18.7 | 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   | 12.8 | 11.9   | 15.6 | 14.7   | 11.7 | 10.7   |
| Jalpaiguri    | 15.6          | 14.7   | 15.7 | 15.0   | 16.0 | 14.9   | 13.0 | 12.8   | 10.9 | 10.3   | 12.7 | 12.2   | 17.5 | 16.2   | 10.0 | 15.9   | 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   | 16.6 | 15.6   | 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   | 12.8 | 11.9   | 10.5 | 9.7    | 11.1 | 10.0   | 11.8 | 11.0   | 10.7 | 10.0   |

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 Dinaipur | Jalpaiguri | Darjeeling | Cooch Behar   |
|---------------------|-------------|---------|---------|---------|----------|---------|--------|-------------|----------|-------|-------------|-------|---------------|------------|------------|---------------|
| Average for 1941-50 | 920.2       | 931.6   | 933.3   | 943.1   | 935.8    | 906.9   | 905.0  | 901.1       | 894.9    | 939.0 | 944.2       | 899.8 | 946.5         | 950.6      | 950.9      |               |
| 1941                | 830.9       | 947.8   | 922.8   | 964.0   | 954.2    | 906.8   | 909.7  | 931.0       | 828.9    | 933.4 | 936.0       | 925.9 | 974.5         | 954.5      | 916.6      |               |
| 1942                | 925.4       | 935.8   | 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    | 928.8 | 938.2       | 894.9 | 979.8         | 987.0      | 974.3      |               |
| 1944                | 923.8       | 929.9   | 939.6   | 924.2   | 931.8    | 915.1   | 940.2  | 902.0       | 876.2    | 916.9 | 935.0       | 912.9 | 985.7         | 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         | 947.3      | 942.1      |               |
| 1946                | 928.7       | 919.5   | 966.0   | 936.9   | 948.2    | 929.9   | 900.4  | 897.6       | 914.2    | 901.9 | 939.2       | 892.3 | 940.1         | 923.7      | 943.6      |               |
| 1947                | 925.2       | 929.7   | 958.9   | 955.5   | 929.1    | 901.9   | 923.1  | 889.7       | 930.0    | 913.3 | 923.2       | 901.6 | 941.8         | 954.4      | 956.6      |               |
| 1948                | 924.2       | 925.7   | 973.2   | 934.9   | 932.7    | 908.0   | 904.3  | 894.7       | 901.0    | 912.3 | 941.7       | 900.5 | 934.9         | 960.4      | 959.5      |               |
| 1949                | 927.9       | 932.2   | 944.7   | 919.9   | 931.5    | 903.3   | 889.8  | 911.9       | 936.1    | 927.3 | 927.2       | 895.2 | 949.1         | 974.0      | 969.0      |               |
| 1950                | 932.7       | 930.6   | 946.0   | 927.7   | 928.7    | 893.7   | 867.4  | 882.8       | 949.2    | 911.3 | 1,035.5     | 858.1 | 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      | 23      |
| Burdwan . . . . .       | 192,412       | 179,802   | 191,148 | 178,870 | 175,861 | 16,440  | 24,842  | 22,625  | 25,046  | 23,605  | 18,673  | 17,712  | 18,581  | 16,938  | 18,480  | 17,134  | 17,338  | 17,308  | 16,453  | 16,087  | 15,790  | 14,605  |
| Birbhum) . . . . .      | 144,278       | 143,118   | 12,047  | 11,128  | 11,574  | 11,266  | 20,612  | 19,877  | 20,244  | 20,956  | 14,768  | 15,181  | 15,779  | 15,982  | 18,612  | 18,291  | 11,831  | 11,468  | 12,244  | 12,346  | 11,869  | 11,537  |
| Bankura . . . . .       | 188,629       | 130,306   | 15,949  | 13,033  | 12,937  | 12,444  | 20,883  | 19,287  | 15,885  | 15,593  | 15,540  | 19,373  | 15,557  | 10,877  | 18,405  | 19,047  | 12,551  | 11,978  | 11,770  | 11,577  | 11,293  | 10,231  |
| Midnapur . . . . .      | 335,490       | 316,386   | 27,954  | 26,388  | 25,766  | 24,860  | 27,247  | 27,492  | 40,759  | 38,365  | 30,078  | 28,438  | 27,216  | 26,043  | 26,669  | 28,664  | 29,825  | 26,648  | 29,722  | 30,227  | 27,164  | 26,180  |
| Hooghly . . . . .       | 121,129       | 122,077   | 11,508  | 10,708  | 11,069  | 10,090  | 14,810  | 12,925  | 15,160  | 14,295  | 13,096  | 12,825  | 11,446  | 10,584  | 13,580  | 10,924  | 11,223  | 10,861  | 10,560  | 10,855  | 9,988   | 8,949   |
| Howrah . . . . .        | 184,072       | 122,198   | 10,890  | 9,766   | 8,909   | 8,028   | 19,827  | 15,927  | 20,676  | 16,748  | 15,012  | 13,801  | 12,911  | 11,568  | 14,588  | 11,727  | 12,625  | 11,872  | 11,853  | 10,723  | 10,399  | 10,490  |
| 24-Parganas . . . . .   | 283,568       | 267,840   | 20,215  | 27,081  | 28,444  | 26,444  | 19,879  | 24,569  | 28,936  | 36,152  | 30,300  | 27,478  | 25,649  | 22,649  | 23,786  | 21,440  | 22,625  | 23,480  | 24,703  | 22,750  | 21,433  | 19,050  |
| Calcutta . . . . .      | 121,650       | 115,008   | 19,718  | 16,468  | 14,473  | 10,123  | 27,708  | 24,569  | 28,602  | 23,243  | 23,524  | 18,064  | 12,619  | 12,212  | 10,113  | 9,721   | 9,015   | 9,417   | 22,523  | 19,339  | 27,350  | 24,846  |
| Murshidabad . . . . .   | 204,943       | 193,701   | 19,862  | 17,348  | 17,348  | 10,538  | 18,706  | 19,194  | 18,861  | 14,917  | 14,980  | 11,891  | 12,619  | 12,212  | 10,113  | 9,721   | 9,015   | 9,417   | 14,348  | 14,220  | 13,406  | 12,181  |
| Malda . . . . .         | 78,574        | 65,933    | 5,461   | 4,705   | 3,369   | 2,949   | 5,891   | 5,426   | 13,334  | 12,017  | 10,468  | 9,068   | 10,117  | 7,681   | 7,771   | 6,991   | 5,112   | 6,861   | 5,520   | 6,018   | 6,814   | 6,641   |
| West Dinajpur . . . . . | 175,777       | 104,298   | 10,422  | 10,017  | 10,211  | 9,691   | 13,933  | 12,871  | 14,147  | 13,168  | 12,515  | 11,692  | 12,243  | 11,177  | 9,776   | 8,964   | 9,881   | 8,766   | 9,030   | 9,492   | 8,902   | 8,472   |
| Jalpaiguri . . . . .    | 111,231       | 104,298   | 10,422  | 10,017  | 10,211  | 9,691   | 13,933  | 12,871  | 14,147  | 13,168  | 12,515  | 11,692  | 12,243  | 11,177  | 9,776   | 8,964   | 9,881   | 8,766   | 9,030   | 9,492   | 8,902   | 8,472   |
| Darjeeling . . . . .    | 50,932        | 47,118    | 5,576   | 5,141   | 5,476   | 4,787   | 5,870   | 5,388   | 6,013   | 5,515   | 5,672   | 5,268   | 5,624   | 4,411   | 4,416   | 4,115   | 4,489   | 4,293   | 4,215   | 4,051   | 4,601   | 4,141   |
| Cooch Behar . . . . .   | Not-available |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| TOTAL . . . . .         | 2,240,765     | 2,058,114 | 201,178 | 183,047 | 182,313 | 165,573 | 332,152 | 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     |
| Burdwan . . . . .       | 19.3          | 20.2   | 18.2 | 19.5   | 17.9 | 18.4   | 24.9 | 25.4   | 25.1 | 26.5   | 18.7 | 19.9   | 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   | 38.6 | 40.0   | 28.2 | 29.0   | 30.1 | 30.5   | 29.0 | 25.4   | 22.0 | 21.9   | 23.3 | 23.7   | 22.6 | 22.0   |
| Bankura . . . . .       | 21.3          | 20.3   | 21.4 | 20.5   | 19.8 | 19.5   | 32.0 | 30.2   | 24.5 | 24.5   | 20.8 | 19.4   | 19.7 | 17.1   | 20.7 | 20.5   | 19.3 | 18.8   | 18.1 | 17.8   | 17.3 | 16.0   |
| Midnapur . . . . .      | 20.4          | 20.4   | 17.1 | 16.9   | 16.8 | 15.9   | 41.2 | 36.9   | 25.0 | 24.6   | 17.8 | 18.3   | 16.7 | 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 | 15.6   | 15.0 | 15.2   | 20.1 | 19.9   | 20.5 | 22.3   | 17.7 | 20.1   | 15.8 | 16.5   | 16.2 | 17.1   | 15.8 | 17.2   | 14.3 | 15.8   | 13.5 | 14.0   |
| Howrah . . . . .        | 16.2          | 16.6   | 13.1 | 14.9   | 10.8 | 12.2   | 28.6 | 22.9   | 24.8 | 23.1   | 18.1 | 21.0   | 15.5 | 15.7   | 15.1 | 17.8   | 17.8 | 18.1   | 13.6 | 13.8   | 12.5 | 16.0   |
| 24-Parganas . . . . .   | 16.1          | 16.1   | 15.0 | 16.9   | 18.1 | 14.2   | 26.5 | 24.1   | 22.5 | 23.7   | 15.1 | 16.8   | 12.7 | 15.4   | 11.8 | 12.9   | 12.7 | 14.2   | 12.3 | 13.7   | 10.6 | 11.5   |
| Calcutta . . . . .      | 23.2          | 28.4   | 26.4 | 25.3   | 28.3 | 25.8   | 40.2 | 46.9   | 36.7 | 35.4   | 16.4 | 17.5   | 14.0 | 14.0   | 15.4 | 28.6   | 17.8 | 34.1   | 15.5 | 18.5   | 18.8 | 27.8   |
| Murshidabad . . . . .   | 24.9          | 28.7   | 20.5 | 17.8   | 21.3 | 25.8   | 45.6 | 39.1   | 35.0 | 34.4   | 20.8 | 20.1   | 28.2 | 28.4   | 23.4 | 23.8   | 22.8 | 23.1   | 22.0 | 22.6   | 20.0 | 20.0   |
| Malda . . . . .         | 17.6          | 15.7   | 12.8 | 15.7   | 7.9  | 6.9    | 18.8 | 19.7   | 31.3 | 30.9   | 30.8 | 26.1   | 28.7 | 28.0   | 21.5 | 19.8   | 17.8 | 17.0   | 17.4 | 17.4   | 16.3 | 14.9   |
| West Dinajpur . . . . . | 24.2          | 23.9   | 19.8 | 19.3   | 17.9 | 17.9   | 31.4 | 27.8   | 31.6 | 32.1   | 23.4 | 21.3   | 28.5 | 21.5   | 14.3 | 12.0   | 15.6 | 14.1   | 15.6 | 14.1   | 16.0 | 13.6   |
| Jalpaiguri . . . . .    | 24.2          | 27.1   | 22.6 | 26.0   | 22.2 | 25.2   | 33.4 | 30.2   | 30.7 | 32.1   | 23.1 | 27.8   | 26.6 | 27.5   | 22.4 | 23.3   | 20.4 | 23.2   | 22.6 | 23.3   | 23.7 | 23.3   |
| Darjeeling . . . . .    | 25.5          | 26.7   | 27.9 | 29.1   | 27.4 | 27.2   | 29.4 | 30.5   | 30.1 | 31.2   | 26.4 | 29.8   | 23.1 | 25.0   | 22.1 | 23.3   | 22.4 | 24.3   | 21.1 | 23.0   | 20.6 | 23.1   |
| Cooch Behar . . . . .   | Not available |        |      |        |      |        |      |        |      |        |      |        |      |        |      |        |      |        |      |        |      |        |
| TOTAL . . . . .         | 19.5          | 21.2   | 17.5 | 18.9   | 15.9 | 17.1   | 28.9 | 30.1   | 26.1 | 28.5   | 20.3 | 22.2   | 18.8 | 20.4   | 17.5 | 19.2   | 17.3 | 19.2   | 16.5 | 18.6   | 16.1 | 17.7   |

TABLE 8

DEATH-RATES (NUMBER OF DEATHS PER 1,000 OF THE SAME SEX) 1941-1950  
 - 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 |
| Average       | 19.0    | 19.0   | 19.1 | 19.4   | 19.7 | 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   | 15.4 | 16.0   |
| Burdwan       | 27.4    | 27.3   | 28.9 | 21.1   | 21.2 | 21.2   | 36.2 | 36.9   | 35.4 | 39.8   | 28.2 | 29.1   | 30.1 | 30.7   | 26.1 | 26.7   | 22.1 | 22.2   | 23.4 | 24.0   | 22.5 | 22.3   |
| Birbhum       | 20.0    | 20.1   | 21.8 | 20.4   | 19.6 | 19.3   | 31.4 | 29.0   | 24.2 | 24.3   | 20.6 | 19.3   | 18.6 | 16.8   | 20.2 | 19.9   | 18.8 | 18.3   | 17.5 | 17.3   | 16.1 | 15.5   |
| Bankura       | 20.2    | 20.1   | 17.1 | 16.9   | 15.6 | 15.8   | 40.6 | 36.3   | 26.1 | 24.8   | 17.8 | 18.4   | 16.5 | 16.6   | 17.4 | 18.1   | 17.8 | 18.6   | 17.7 | 18.9   | 16.1 | 16.3   |
| Hooghly       | 18.0    | 17.1   | 15.5 | 16.7   | 14.8 | 14.8   | 16.6 | 19.4   | 20.1 | 21.7   | 17.4 | 19.7   | 15.3 | 16.0   | 16.6 | 16.5   | 14.7 | 16.6   | 18.7 | 16.2   | 12.9 | 13.4   |
| Howrah        | 16.3    | 16.4   | 18.1 | 14.8   | 10.7 | 12.1   | 23.8 | 22.6   | 24.9 | 29.2   | 18.2 | 21.1   | 13.0 | 17.7   | 15.2 | 17.9   | 15.3 | 16.2   | 18.7 | 16.4   | 12.6 | 13.2   |
| 24 Parganas   | 15.0    | 15.9   | 15.0 | 16.8   | 13.9 | 13.0   | 19.2 | 23.5   | 22.4 | 23.5   | 16.1 | 16.6   | 12.7 | 13.5   | 11.7 | 12.7   | 12.6 | 13.9   | 12.1 | 13.4   | 10.4 | 11.2   |
| Calcutta      | 15.6    | 15.9   | 15.0 | 16.8   | 13.9 | 13.0   | 19.2 | 23.5   | 22.4 | 23.5   | 16.1 | 16.6   | 12.7 | 13.5   | 11.7 | 12.7   | 12.6 | 13.9   | 12.1 | 13.4   | 10.4 | 11.2   |
| Nadia         | 27.1    | 27.6   | 28.4 | 25.1   | 24.7 | 24.5   | 42.5 | 44.1   | 36.3 | 37.0   | 17.0 | 29.1   | 14.5 | 26.6   | 18.0 | 30.4   | 18.0 | 30.6   | 21.4 | 29.1   | 19.5 | 20.5   |
| North 24 P.   | 29.8    | 28.7   | 26.4 | 17.8   | 20.7 | 19.1   | 39.1 | 38.0   | 35.1 | 34.6   | 30.0 | 29.4   | 28.2 | 29.3   | 22.0 | 23.8   | 21.5 | 22.5   | 21.1 | 17.3   | 17.4 | 14.8   |
| West Dinajpur | 17.3    | 18.2   | 19.0 | 19.2   | 17.2 | 6.8    | 13.4 | 12.5   | 30.7 | 27.9   | 24.2 | 21.2   | 23.4 | 21.7   | 20.0 | 17.9   | 17.1 | 16.0   | 12.6 | 16.1   | 13.7 | 16.4   |
| West Bengal   | 24.0    | 23.0   | 22.6 | 19.2   | 17.5 | 18.0   | 21.1 | 21.3   | 31.2 | 32.1   | 28.0 | 28.1   | 23.4 | 27.8   | 14.1 | 11.0   | 16.0 | 12.6   | 16.1 | 13.7   | 16.4 | 23.8   |
| Barpeta       | 26.8    | 20.7   | 22.6 | 26.0   | 24.5 | 27.6   | 33.4 | 33.4   | 34.4 | 37.9   | 30.9 | 34.2   | 30.3 | 32.7   | 24.1 | 28.1   | 22.9 | 25.3   | 22.1 | 25.7   | 22.7 | 23.1   |
| Cooch Behar   | 25.6    | 28.7   | 27.9 | 20.2   | 27.4 | 27.1   | 29.4 | 30.4   | 30.4 | 31.4   | 26.9 | 30.3   | 28.5 | 25.3   | 22.3 | 23.4   | 22.4 | 24.2   | 21.0 | 22.7   | 22.7 | 23.0   |

TOTAL 19.4 21.2 17.5 18.8 15.7 18.2 28.6 28.0 26.2 28.6 20.4 22.3 18.0 20.4 17.5 19.1 17.2 19.2 16.4 18.6 16.0 17.4

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 at birth | 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 |
| All ages     | 19.5                        | 21.2   | 17.5 | 18.0   | 15.9 | 17.1   | 28.0  | 30.1   | 26.1  | 28.6   | 20.3 | 22.2   | 18.8 | 20.4   | 17.5 | 19.2   | 17.3 | 19.2   | 16.5 | 18.8   | 16.1 | 17.7   |
| 0-1          | 17.2                        | 15.0   | 13.5 | 12.1   | 11.7 | 11.9   | 27.3  | 29.7   | 28.5  | 26.6   | 18.4 | 17.6   | 14.9 | 13.6   | 13.0 | 13.4   | 14.5 | 13.0   | 13.2 | 12.5   | 13.2 | 11.9   |
| 1-5          | 16.5                        | 20.6   | 16.6 | 17.8   | 15.0 | 16.0   | 18.7  | 28.1   | 25.0  | 27.1   | 19.5 | 21.3   | 17.9 | 19.2   | 18.0 | 17.6   | 18.0 | 20.2   | 17.6 | 18.6   | 18.3 | 19.4   |
| 5-10         | 6.0                         | 10.2   | 6.4  | 6.6    | 7.6  | 8.5    | 10.4  | 15.0   | 12.6  | 14.4   | 9.8  | 11.3   | 9.1  | 10.3   | 7.6  | 8.8    | 7.8  | 8.8    | 6.9  | 6.0    | 6.3  | 7.4    |
| 10-15        | 6.9                         | 6.7    | 6.4  | 6.2    | 6.0  | 6.5    | 10.4  | 9.7    | 9.6   | 9.4    | 7.5  | 6.3    | 6.9  | 6.7    | 5.9  | 5.8    | 5.8  | 5.8    | 6.0  | 5.6    | 5.1  | 6.4    |
| 15-20        | 8.4                         | 11.6   | 7.0  | 10.2   | 6.0  | 9.2    | 12.4  | 16.1   | 11.4  | 15.0   | 8.9  | 12.2   | 8.2  | 11.1   | 7.5  | 10.1   | 7.3  | 10.5   | 6.8  | 6.0    | 6.9  | 10.0   |
| 20-30        | 10.2                        | 14.2   | 9.2  | 12.8   | 8.8  | 11.5   | 15.1  | 20.2   | 13.9  | 19.5   | 10.8 | 13.2   | 9.9  | 13.6   | 9.2  | 12.8   | 8.8  | 12.8   | 8.8  | 12.5   | 8.2  | 10.8   |
| 30-40        | 12.8                        | 16.1   | 12.2 | 13.9   | 11.0 | 12.4   | 20.0  | 21.9   | 18.4  | 21.1   | 14.3 | 16.6   | 13.2 | 15.1   | 10.9 | 10.0   | 11.5 | 14.0   | 10.8 | 13.3   | 10.0 | 12.1   |
| 40-50        | 20.7                        | 19.0   | 18.8 | 17.6   | 16.8 | 15.8   | 30.7  | 27.7   | 28.2  | 22.0   | 20.9 | 18.6   | 18.6 | 17.9   | 16.6 | 17.9   | 15.6 | 17.9   | 17.8 | 17.0   | 17.3 | 17.8   |
| 50-60        | 35.3                        | 34.6   | 31.8 | 29.0   | 28.2 | 26.9   | 51.1  | 47.1   | 46.9  | 45.6   | 36.6 | 35.6   | 33.6 | 32.5   | 32.1 | 32.7   | 31.3 | 32.3   | 30.8 | 31.6   | 31.1 | 31.7   |
| 60 and above | 84.6                        | 94.4   | 73.4 | 81.3   | 66.1 | 74.0   | 119.9 | 128.8  | 110.2 | 122.2  | 86.0 | 97.1   | 79.1 | 88.6   | 81.1 | 91.3   | 77.6 | 88.0   | 78.0 | 89.1   | 74.6 | 83.8   |

(Not available)

**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       | 984.4   | 992.0   | 940.0   | 948.7    | 925.3   | 904.7   | 877.2       | 829.3    | 953.0   | 945.0       | 850.4 | 899.8         | 937.2      | 925.2      |               |
| 1941                | 909.9       | 907.1   | 928.5   | 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   | 961.0   | 965.2    | 911.6   | 892.1   | 886.9       | 699.3    | 928.9   | 914.3       | 877.9 | 921.8         | 949.1      | 876.0      |               |
| 1943                | 879.3       | 910.8   | 964.3   | 923.6   | 854.9    | 858.6   | 766.6   | 775.3       | 886.3    | 971.0   | 964.1       | 921.1 | 904.3         | 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       | 961.2 | 923.6         | 930.8      | 917.2      | Not available |
| 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      | 928.4      |               |
| 1946                | 916.9       | 911.6   | 1,012.9 | 880.2   | 957.6    | 906.3   | 898.3   | 884.7       | 784.6    | 967.7   | 980.5       | 903.3 | 879.1         | 912.9      | 953.9      |               |
| 1947                | 925.6       | 927.2   | 976.4   | 966.8   | 986.5    | 915.1   | 931.7   | 903.3       | 839.8    | 961.2   | 913.9       | 839.3 | 899.6         | 916.9      | 931.8      |               |
| 1948                | 941.9       | 986.8   | 994.4   | 954.3   | 1,000.8  | 968.0   | 940.4   | 916.3       | 869.8    | 979.4   | 941.4       | 828.7 | 844.1         | 986.9      | 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   | 1,008.8 | 888.8       | 908.4    | 945.0   | 908.6       | 827.9 | 893.2         | 937.8      | 900.0      |               |

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

| Age              | 1941    | 1942    | 1943    | 1944    | 1945    | 1946    | 1947    | 1948    | 1949    | 1950    | 1941-50 average | Male deaths per 1,000 female deaths, 1941-50 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------|--|
| 1                | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12              | 13   |
| 1 All ages       | 201,173 | 182,313 | 332,162 | 300,429 | 233,276 | 216,331 | 201,062 | 198,401 | 190,116 | 185,440 | 224,073         | 1,089  |
| 2 0-5            | 58,480  | 52,989  | 96,565  | 87,334  | 67,813  | 62,879  | 55,028  | 57,178  | 55,789  | 54,630  | 64,869          | 1,102  |
| 3 0-1            | 37,900  | 34,348  | 62,583  | 56,800  | 43,949  | 40,764  | 33,385  | 33,575  | 33,976  | 30,412  | 40,748          | 1,183  |
| 4 Under 1 month  | 20,754  | 18,809  | 34,271  | 30,694  | 24,066  | 22,317  | 16,797  | 18,144  | 18,463  | 14,964  | 21,957          | 1,281  |
| 5 1 to 6 months  | 12,007  | 10,881  | 19,826  | 17,681  | 13,923  | 12,909  | 11,134  | 10,490  | 10,781  | 10,138  | 13,002          | 1,121  |
| 6 6 to 12 months | 5,139   | 4,658   | 8,486   | 7,675   | 5,960   | 5,528   | 5,454   | 4,941   | 4,782   | 5,320   | 5,789           | 1,041  |
| 7 1 to 5 years   | 20,580  | 18,651  | 33,982  | 30,794  | 23,894  | 22,109  | 22,248  | 23,603  | 21,818  | 23,618  | 24,121          | 987  |
| 8 5-10           | 13,860  | 12,561  | 22,687  | 20,700  | 16,073  | 14,900  | 12,644  | 12,689  | 11,441  | 11,233  | 14,897          | 1,031  |
| 9 10-15          | 8,460   | 7,657   | 13,952  | 12,618  | 9,798   | 9,102   | 7,889   | 7,892   | 7,140   | 6,874   | 9,117           | 1,269  |
| 10 15-20         | 7,846   | 7,119   | 12,965  | 11,717  | 9,098   | 8,480   | 7,716   | 7,555   | 6,846   | 7,130   | 8,640           | 802  |
| 11 20-30         | 19,071  | 17,283  | 31,491  | 28,481  | 22,115  | 20,406  | 19,051  | 18,607  | 17,282  | 17,192  | 21,105          | 771  |
| 12 30-40         | 21,505  | 19,490  | 35,510  | 32,116  | 24,896  | 23,136  | 21,164  | 20,405  | 19,145  | 17,710  | 23,512          | 1,185  |
| 13 40-50         | 21,265  | 19,270  | 35,112  | 31,755  | 24,657  | 22,888  | 22,222  | 21,243  | 19,791  | 19,780  | 23,796          | 1,473  |
| 14 50-60         | 19,816  | 17,958  | 32,720  | 29,592  | 22,678  | 21,298  | 20,517  | 20,140  | 19,539  | 19,881  | 22,443          | 1,351  |
| 15 60 & above    | 30,880  | 27,985  | 50,990  | 46,116  | 35,309  | 33,208  | 34,232  | 32,612  | 33,119  | 31,636  | 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<br>per 1,000 male<br>deaths, average<br>1941-50 |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|
|                                    | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12      |   |
| <b>1 All ages . . . . .</b>        | 183,047 | 165,573 | 202,063 | 270,946 | 215,288 | 198,356 | 186,103 | 186,877 | 182,443 | 171,397 | 205,811 | 918   |
| <b>2 0-5 . . . . .</b>             | 52,863  | 47,317  | 84,353  | 79,982  | 62,175  | 57,288  | 50,978  | 52,780  | 51,791  | 48,920  | 58,894  | 908   |
| <b>3 6-11 . . . . .</b>            | 31,740  | 28,710  | 50,347  | 48,022  | 37,381  | 34,394  | 28,589  | 28,415  | 29,463  | 25,698  | 34,299  | 842   |
| <b>4 Under 1 month . . . . .</b>   | 16,184  | 14,639  | 25,825  | 24,486  | 19,085  | 17,541  | 13,128  | 14,007  | 14,764  | 11,785  | 17,135  | 780   |
| <b>5 1 to 6 months . . . . .</b>   | 10,703  | 9,681   | 17,078  | 16,193  | 12,588  | 11,594  | 10,077  | 9,440   | 9,836   | 8,841   | 11,603  | 892   |
| <b>6 6 to 12 months . . . . .</b>  | 4,853   | 4,390   | 7,744   | 7,343   | 5,708   | 5,259   | 5,364   | 4,968   | 4,863   | 5,122   | 5,561   | 961   |
| <b>7 1 to 5 years . . . . .</b>    | 21,123  | 19,107  | 33,706  | 31,960  | 24,844  | 22,889  | 22,400  | 24,365  | 22,328  | 23,222  | 24,595  | 1,020   |
| <b>8 5-10 . . . . .</b>            | 13,400  | 12,120  | 21,380  | 20,273  | 15,780  | 14,514  | 12,486  | 12,539  | 11,393  | 10,804  | 14,447  | 970   |
| <b>9 10-15 . . . . .</b>           | 6,553   | 5,928   | 10,457  | 9,915   | 7,707   | 7,103   | 6,193   | 6,203   | 5,980   | 5,798   | 7,184   | 788   |
| <b>10 15-20 . . . . .</b>          | 9,500   | 8,583   | 15,180  | 14,373  | 11,173  | 10,299  | 9,375   | 9,878   | 10,018  | 9,828   | 10,770  | 1,246   |
| <b>11 20-30 . . . . .</b>          | 24,546  | 22,203  | 39,188  | 37,188  | 28,870  | 26,610  | 24,811  | 24,989  | 24,256  | 21,001  | 27,359  | 1,296   |
| <b>12 30-40 . . . . .</b>          | 18,598  | 16,822  | 29,676  | 28,188  | 21,873  | 20,145  | 18,754  | 18,846  | 17,884  | 16,396  | 20,713  | 881   |
| <b>13 40-50 . . . . .</b>          | 14,280  | 12,898  | 22,753  | 21,874  | 16,771  | 15,459  | 15,183  | 14,555  | 13,353  | 14,167  | 16,147  | 679   |
| <b>14 50-60 . . . . .</b>          | 14,332  | 12,965  | 22,870  | 21,685  | 16,857  | 15,625  | 15,743  | 15,494  | 15,275  | 15,363  | 16,611  | 740   |
| <b>15 60 &amp; above . . . . .</b> | 28,995  | 26,227  | 46,266  | 43,868  | 34,102  | 31,418  | 32,580  | 31,593  | 31,993  | 29,820  | 33,686  | 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<br>1941-50 |        | 1941 |        | 1942 |        | 1943 |        | 1944 |        | 1945 |        |
|-------------------------|------------------------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
|                         | Male                   | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| W Bengal . . . . .      | 552                    | 530    | 489  | 531    | 484  | 526    | 643  | 543    | 500  | 475    | 552  | 410    |
| Burdwan . . . . .       | 41                     | 41     | 47   | 54     | 39   | 50     | 40   | 31     | 45   | 32     | 53   | 4      |
| 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 . . . . .      | 40                     | 44     | 40   | 42     | 35   | 37     | 51   | 52     | 46   | 45     | 43   | 43     |
| Hooghly . . . . .       | 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     | 57   | 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     | 57   | 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   | 3      |
| Cooch Behar . . . . .   | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
|                         | 1946                   |        | 1947 |        | 1948 |        | 1949 |        | 1950 |        |      |        |
|                         | Male                   | Female | Male | Female | Male | Female | Male | Female | Male | Female |      |        |
| West Bengal . . . . .   | 578                    | 508    | 507  | 490    | 557  | 550    | 592  | 595    | 555  | 634    |      |        |
| 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     |      |        |
| Hooghly . . . . .       | 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      | 10   | 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<br>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   | 117   | 140   |
| Midnapur . . . . .      | 565                    | 665   | 557   | 500   | 435   | 534   |
| Hooghly . . . . .       | 228                    | 290   | 279   | 230   | 215   | 183   |
| Howrah . . . . .        | 137                    | 192   | 122   | 148   | 193   | 154   |
| 24-Parganas . . . . .   | 370                    | 518   | 416   | 332   | 318   | 392   |
| Calcutta . . . . .      | 191                    | 51    | 29    | 26    | 208   | 203   |
| Nadia . . . . .         | 123                    | 68    | 45    | 81    | 105   | 136   |
| Murshidabad . . . . .   | 160                    | 98    | 146   | 115   | 152   | 189   |
| Malda . . . . .         | 110                    | 111   | 107   | 89    | 125   | 117   |
| West Dinajpur . . . . . | 229                    | 193   | 189   | 212   | 204   | 236   |
| Jalpaiguri . . . . .    | 537                    | 638   | 654   | 480   | 389   | 444   |
| Darjeeling . . . . .    | 112                    | 121   | 140   | 113   | 102   | 121   |
| Cooch Behar . . . . .   | ..                     | ..    | ..    | ..    | ..    | ..    |
|                         | 1946                   | 1947  | 1948  | 1949  | 1950  |       |
| West Bengal . . . . .   | 3,781                  | 3,081 | 3,937 | 4,113 | 2,865 |       |
| Burdwan . . . . .       | 312                    | 291   | 339   | 366   | 239   |       |
| Birbhum . . . . .       | 157                    | 121   | 179   | 187   | 93    |       |
| Bankura . . . . .       | 185                    | 169   | 159   | 181   | 122   |       |
| Midnapur . . . . .      | 593                    | 538   | 671   | 620   | 507   |       |
| Hooghly . . . . .       | 218                    | 293   | 265   | 238   | 162   |       |
| Howrah . . . . .        | 160                    | 97    | 129   | 112   | 66    |       |
| 24-Parganas . . . . .   | 373                    | 304   | 415   | 459   | 282   |       |
| Calcutta . . . . .      | 239                    | 170   | 240   | 340   | 306   |       |
| Nadia . . . . .         | 175                    | 123   | 218   | 216   | 113   |       |
| Murshidabad . . . . .   | 11                     | 140   | 223   | 185   | 149   |       |
| Malda . . . . .         | 131                    | 98    | 110   | 138   | 77    |       |
| West Dinajpur . . . . . | 293                    | 246   | 232   | 294   | 188   |       |
| Jalpaiguri . . . . .    | 679                    | 473   | 547   | 661   | 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<br>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 | 2,360  |
| 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   | 273    |
| 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    | 3      | 13    | 3      | 20    | 7      | 26    | 8      | 23    | 9      |
| West Dinajpur . . . . . | 43                     | 14     | 39    | 14     | 28    | 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     | 333   | 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                    | 216    | 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 | 1,389  |       |        |
| Nadia . . . . .         | 74                     | 17     | 78    | 22     | 82    | 23     | 77    | 15     | 87    | 7      |       |        |
| Murshidabad . . . . .   | 134                    | 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    | 408   | 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<br>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   | 36     | 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     | 23   | 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    | 5      |
| 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    | 832  | 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                     | 80     | 82   | 67     | 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  | 126    |      |        |
| Calcutta . . . . .      | 15                     | 3      | 7    | 3      | 15   | 2      | 24   | 7      | 10   | 5      |      |        |
| Nadia . . . . .         | 61                     | 48     | 58   | 31     | 45   | 63     | 54   | 55     | 48   | 52     |      |        |
| Murshidabad . . . . .   | 98                     | 114    | 71   | 104    | 90   | 94     | 54   | 93     | 53   | 90     |      |        |
| Malda . . . . .         | 46                     | 65     | 34   | 45     | 45   | 60     | 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     | 30   | 22     |      |        |
| Darjeeling . . . . .    | 6                      | 1      | 3    | 2      | 3    | 6      | 4    | 1      | 4    | 2      |      |        |
| Cooch Behar . . . . .   | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |      |        |













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     | .5   | .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   | .2     |
| Calcutta . . .      | 1.0                 | 1.0    | 1.0  | 2.3    | .8   | 1.6    | .9   | 1.8    | 1.0  | 1.9    | .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   | .04    |
| 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   | .2     |
| 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    | .3   | .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    | .2   | .04    | .1   | .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   | .1     | .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    |
| Jalpaiguri . . .    | .02                 | .02    | .03  | .02    | .01  | .01    | .02  | .03    | .02  | .02    | .01  | .03    |
| Darjeeling . . .    | ..                  | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| 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    | .03  | .04    | .03  | .04    |      |        |
| 24-Parganas . . .   | .1                  | .1     | .1   | .1     | .1   | .1     | .1   | .1     | .1   | .1     |      |        |
| 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    | .04  | .04    | .04  | .04    |      |        |
| Jalpaiguri . . .    | .03                 | .01    | .02  | .01    | .02  | .01    | .03  | .02    | .01  | .02    |      |        |
| Darjeeling . . .    | ..                  | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |      |        |
| Cooch Behar . . .   | ..                  | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |      |        |



TABLE 17.3

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

|                         | Average for<br>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  | 3.7    | 31.7 | 34.9   | 51.0 | 56.0   |
| Burdwan . . . . .       | 14                     | 17     | 18   | 20     | 7    | 7      | 6    | 6      | 5    | 6      | 46   | 57     |
| Birbhum . . . . .       | 7                      | 7      | 5    | 6      | 7    | 6      | 1    | 2      | 6    | 6      | 27   | 28     |
| 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   | 52     | 10   | 13     | 6    | 8      | 120  | 140    | 138  | 155    |
| 24-Parganas . . . . .   | 19                     | 21     | 29   | 31     | 4    | 5      | 7    | 4      | 30   | 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   | 28     | 8    | 10     |
| Jalpaiguri . . . . .    | 1                      | 1      | ..   | ..     | 0.2  | ..     | 1    | 1      | 5    | 3      | 3    | 1      |
| Darjeeling . . . . .    | 3                      | 1      | 0.4  | ..     | ..   | 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 | 30.6   |
| 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      | ..   | 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   | 10     |
| Calcutta . . . . .      | 3    | 4      | 42   | 55     | 95   | 110    | 13   | 15     | 101  | 123    |
| Nadia . . . . .         | 17   | 18     | 3    | 3      | 4    | 6      | 2    | 3      | 28   | 32     |
| Murshidabad . . . . .   | 19   | 19     | 1    | 2      | 2    | 2      | 1    | 1      | 15   | 15     |
| Malda . . . . .         | 5    | 7      | 3    | 1      | 11   | 11     | 0.3  | 0.5    | 15   | 10     |
| West Dinajpur . . . . . | 20   | 23     | 16   | 18     | 2    | 3      | ..   | ..     | 7    | 8      |
| Jalpaiguri . . . . .    | 0.3  | 0.2    | 0.3  | 0.2    | 0.4  | ..     | ..   | ..     | 1    | 1      |
| Darjeeling . . . . .    | 1    | 0.2    | 4    | 2      | 4    | ..     | 1    | 1      | 8    | 6      |
| Cooch Behar . . . . .   | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |

TABLE 17.4

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

|                         | Average for<br>1941-50 |        | 1941 |        | 1942 |        | 1943 |        | 1944 |        | 1945 |        |
|-------------------------|------------------------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
|                         | Male                   | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| West Bengal . . . . .   | .03                    | .01    | .005 | .005   | ..   | ..     | ..   | ..     | .01  | .004   | ..   | ..     |
| Burdwan . . . . .       | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Birbhum . . . . .       | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Bankura . . . . .       | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Midnapur . . . . .      | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Hooghly . . . . .       | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Howrah . . . . .        | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| 24-Parganas . . . . .   | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Calcutta . . . . .      | .3                     | .1     | .1   | .1     | ..   | ..     | ..   | ..     | .1   | .04    | ..   | ..     |
| Nadia . . . . .         | ..                     | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| 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 . . . . .   | .01  | ..     | .03  | .01    | .1   | .02    | .2   | .1     | .02  | ..     |
| Burdwan . . . . .       | ..   | ..     | ..   | ..     | ..   | ..     | .1   | ..     | ..   | ..     |
| Birbhum . . . . .       | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Bankura . . . . .       | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Midnapur . . . . .      | ..   | ..     | ..   | ..     | ..   | .03    | ..   | ..     | ..   | ..     |
| Hooghly . . . . .       | ..   | ..     | ..   | ..     | ..   | .1     | ..   | ..     | ..   | ..     |
| Howrah . . . . .        | ..   | ..     | ..   | ..     | ..   | ..     | .4   | .2     | ..   | ..     |
| 24-Parganas . . . . .   | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Calcutta . . . . .      | .1   | ..     | .3   | .1     | .5   | .1     | 1.8  | .5     | .1   | ..     |
| Nadia . . . . .         | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Murshidabad . . . . .   | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Malda . . . . .         | ..   | ..     | ..   | ..     | ..   | .2     | ..   | ..     | ..   | ..     |
| West Dinajpur . . . . . | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Jalpaiguri . . . . .    | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Darjeeling . . . . .    | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |
| Cooch Behar . . . . .   | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     | ..   | ..     |



TABLE 17.7

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

|                         | Average for<br>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  | 2.3    | 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 . . . . .   | 4.6                    | 5.2    | 4.0  | 5.8    | 4.6  | 7.3    | 3.2  | 4.0    | 2.3  | 3.1    | 3.3  | 5.3    |
| 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<br>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 . . . . .      | 17.9                   | 26.0 | 22.4 | 8.9  | 11.3 | 18.7 |
| Hooghly . . . . .       | 20.3                   | 27.1 | 27.7 | 18.1 | 15.1 | 14.2 |
| Howrah . . . . .        | 11.2                   | 19.7 | 15.2 | 9.9  | 10.1 | 11.2 |
| 24-Parganas . . . . .   | 14.2                   | 18.5 | 17.7 | 14.2 | 8.1  | 13.3 |
| Calcutta . . . . .      | 9.9                    | 3.5  | 2.9  | 1.6  | 8.9  | 11.2 |
| Nadia . . . . .         | 11.0                   | 6.6  | 4.3  | 4.2  | 7.0  | 11.4 |
| Murshidabad . . . . .   | 8.3                    | 6.7  | 9.2  | 3.6  | 5.4  | 8.0  |
| Malda . . . . .         | 16.8                   | 23.6 | 36.3 | 16.4 | 10.4 | 12.9 |
| West Dinajpur . . . . . | 34.0                   | 35.9 | 38.0 | 35.8 | 22.9 | 30.5 |
| Jalpaiguri . . . . .    | 51.5                   | 63.7 | 57.2 | 37.3 | 29.5 | 38.0 |
| Darjeeling . . . . .    | 23.8                   | 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 . . . . .       | 16.8                   | 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                   | 8.3  | 10.9 | 10.4 | 6.8  |      |
| 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 | 78.2 | 56.2 |      |
| Darjeeling . . . . .    | 23.4                   | 26.7 | 24.2 | 33.6 | 16.2 |      |
| Cooch Behar . . . . .   | ..                     | ..   | ..   | ..   | ..   |      |







## APPENDIX A

## A brief account of the history of Vital Statistics in West Bengal

The maintenance of genealogical trees in important families is an ancient feature in our country and these trees may be regarded as our only surviving account of vital statistics before compulsory registration was introduced. They recorded births, marriages and deaths but, as can be readily concluded, they were imperfect and did not record dates in most cases. Records of marriages and deaths among Muslims have been handed down to us from the offices of Qazis and Imams but these, too, in the nature of things, were bound to be incomplete because not all marriages and deaths were entered even among important families.

The history of the Census and Vital Statistics in India has followed that in England. In 1936-37 an Act requiring registration of births, marriages and deaths was promulgated in England. As a consequence, quarterly returns of births, marriages and deaths of European—British subjects then residing in India were collected from Ministers of all denominations and transmitted to the Registrar General in England. At this time and subsequently the registration of these events was confined to Calcutta. Later, an Indian Act VI was passed in 1886 by which registration of births, deaths and marriages of Europeans was made obligatory and the transmission of their returns to the Registrar General of England was regularised. This still holds good to-day in all States of India.

In Bengal, the years 1864-69 saw the beginnings of registration. A census of the British territories in India was to have been taken in 1861 but was deferred in consequence of the Mutiny till 1865. Various administrative inconveniences prompted Sir Cecil Beadon in May 1865 to urge upon the Supreme Government the expediency of reviving the project for taking a census of all India. A census of the North Western Provinces was taken in 1865 by Plowden and an exploratory census of Bengal by Beverley in 1866-7. An authoritative census of the Province of Bengal was taken in 1872 which marked the first of a series of decennial censuses thereafter. In 1864 an Act (No. III) was passed to provide for the first time a fairly comprehensive and elaborate code for mufasil municipalities of Bengal but no provision was made for taking a census or registering births and deaths in them. In 1867 the Government of India suggested the collection of mortuary returns "approximately accurate and such as would be at least valuable as a commencement of statistics".

There were no census returns at this time with which births and deaths even if they were accurate could be compared but the local Government decided that death returns should be procured through municipalities where they existed and through village choukidars and the Police elsewhere. Orders to this effect were issued in 1868. Chaukidars were to make weekly or bi-weekly reports to Police Stations and the registers prepared at these stations were to be forwarded to the District Superintendent's office for compilation and submission to the Commissioner.

| Year   | 1868 | 1869 | 1870 | 1871 | 1872 | 1873 | 1874 | 1875 | 1876 |
|--|------|------|------|------|------|------|------|------|------|
| Birth rate per 1,000 of population census 1876 | 13.1 | 13.8 | 12.2 | 12.0 | 10.6 | 10.7 | 10.8 | 16.3 | 17.3 |
| Death rate per 1,000 of population census 1876 | 32   | 29.8 | 24.4 | 24   | 27.8 | 26.4 | 29.4 | 35   | 30.2 |
| Infant mortality rate per 1,000 births         |      | ..   | ..   | ..   | ..   | ..   | ..   | ..   | 348  |

The establishment of the District Superintendent of Police proved unable to cope with this work and in some districts it was transferred to the District Magistrate. In Chottanagpur many of the choukidars, who were poorly paid, preferred dismissal to the burden of this new duty. In a small area in Hooghly, a Bengali missionary, by house to house visitation, succeeded in compiling statistics which he used to illustrate the devastations of the "Burdwan fever". Two District Magistrates saw to the prospect of accurate statistics being obtained through the chaukidars and advocated compulsory registration such as the Calcutta Municipal Act provided for.

The statistics as a whole were admittedly unreliable, but a mass of information was gradually made available. Nothing was however done towards digesting these statistics, comparing those of different areas, or utilising them. It was decided that the examination and extraction of vital statistics should be entrusted to the Sanitary Commissioner as the Officer on whose duties the practical conclusions drawn from these statistics most directly bear. He was asked to propose simple forms and to group causes of death into the most obvious and easily recognizable classes, of which the destructive symptoms are known and familiar to the rudest villager. After a short trial of the new system it was thought that Government would be in a position to propose legislation on any point on which it might be found necessary and that trustworthy information would be ready for comparison with the census, which was to be taken in 1871. Without a census of course, the real value of these statistics could not be secured.

Before the year 1864, there had been no registration in Calcutta. Under the municipal organisation then introduced, the duty was entrusted to Eurasian and Native Medical Practitioners, six in number, one in each division of the town. The results were considered unsatisfactory after four years of trial and in 1868 the work was transferred to the Police. Each Section Inspector (there were eighteen sections) became a registrar of births and deaths. Registers were also kept at the burning ghats and burial grounds so that the record of corpses burnt and buried might be used to check the section registers. Returns were furnished from churches, from the garrison, from the shipping office and from some hospitals. These returns were to be duly used for compilation in Calcutta Municipal Office.

In 1875, the law was forcibly brought to the people's notice by beat of drum in Calcutta and the Deputy Commissioner of Police gave much attention to this subject. The Health Officer was responsible for compiling the vital statistics of the town, but did not exercise direct control over the collection of the material, as the Police was in charge of the work. Moreover, the Health Department was inadequately staffed. Despite these circumstances the Health Officer in his report of 1876 gave reasons why the work of registration of Vital Statistics should also pass to his care. The statement of birth and death rates in Calcutta from 1868-1876 as shown below will indicate that the registration, though defective, was showing signs of slow improvement.

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.

#### **Retransfer of registration in municipalities to the town police 1892**

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 Aşansol 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 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 Bye-laws issued thereunder.   |

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

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,

**Reasons why errors are not eliminated** but the desired improvement has not yet been obtained owing to inherent defects in the system.

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 Burdwan— <i>P. S. Katwa</i>          | 1 Kashigram . . . . .       | 258               | 244             | 94.6                           | 365   | 33.2                                  | 141.5                           |
|   | 2 Khajurdibi . . . . .      | 181               | 159             | 87.8                           | 229   | 30.6                                  | 126.5                           |
|   | 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                           |
|   | TOTAL                       | 2,188             | 1,929           | 88.2                           | 3,039   | 36.5                                  | 138.9                           |
| District Bankura—<br><i>P. S. Sonamukhi</i>   | 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                           |
|   | TOTAL                       | 1,130             | 1,055           | 93.1                           | 1,479   | 28.3                                  | 130.9                           |
| 24-Parganas— <i>P. S. Basirhat</i>            | 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 Sankohura . . . . .       | 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                           |
|   | TOTAL                       | 1,942             | 1,611           | 83.0                           | 3,416   | 52.8                                  | 175.9                           |
| District Nadia— <i>P. S. Nabadwip</i>         | 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                           |
|   | TOTAL                       | 538               | 192             | 35.7                           | 824   | 76.7                                  | 153.2                           |
| District Malda—<br><i>P. S. English Bazar</i> | 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                           |
|   | TOTAL                       | 1,614             | 1,057           | 65.5                           | 1,926   | 45.1                                  | 119.3                           |
| <i>Towns</i>                                  |                             |                   |                 |                                |   |                                       |                                 |
| District Burdwan . . . . .                    | Katwa . . . . .             | 70                | 56              | 80.0                           | 292   | 80.8                                  | 417.1                           |
| District 24-Parganas . . . . .                | Joynagar-Mazilpur . . . . . | 270               | 246             | 91.1                           | 442   | 44.3                                  | 163.7                           |
|   | Halisahar . . . . .         | 186               | 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 | <i>Unions</i> |                   |                 |                                |   |  |                                 |
|                               | 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   | 23.0                                     | 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—<br>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 Sankchura . . . . .       | 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                           |
|   | TOTAL                       | 1,532             | 1,225           | 80.0                           | 2,242   | 45.4                                     | 146.3                           |
| 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                           |
|   | TOTAL                       | 419               | 123             | 29.4                           | 582   | 78.9                                     | 139.0                           |
| 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                            |
|   | TOTAL                       | 804               | 515             | 64.1                           | 914   | 43.7                                     | 113.7                           |
| <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                           |
|   | URBAN TOTAL . . . . .       | 694               | 392             | 56.5                           | 1,134   | 65.4                                     | 163.4                           |
|   | RURAL TOTAL . . . . .       | 6,122             | 4,901           | 80.1                           | 8,084   | 39.4                                     | 132.0                           |
|   | GRAND TOTAL . . . . .       | 6,816             | 5,293           | 77.7                           | 9,218   | 42.6                                     | 135.2                           |
| DUPLICATE SURVEY                        |                             |                   |                 |                                |   |  |                                 |
| <i>Unions</i>                           |                             |                   |                 |                                |   |  |                                 |
| 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                           |
|   | TOTAL                       | 367               | 106             | 28.9                           | 552   | 80.8                                     | 150.4                           |

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      |        |                       |                            |
|--------------------------|-------------------|--------|-----------------------|----------------------------|-------------------|--------|-----------------------|----------------------------|-------------------|--------|-----------------------|----------------------------|
|                          | Original Register | Survey | District vital return | Percent to total detection | Original Register | Survey | District vital return | Percent to total detection | Original Register | Survey | District vital return | Percent to total detection |
| 1 Katwa P. S.            | 3,039             | 2,188  | 1,881                 | 61.9                       | 2,960             | 2,258  | 1,695                 | 57.3                       | 44                | 83     | 47                    | 53.0                       |
| 2 Sonamukhi P. S.        | 1,479             | 1,130  | 1,132                 | 76.5                       | 1,386             | 1,109  | 1,111                 | 80.2                       | 40                | 162    | 21                    | 26.3                       |
| 3 Basirhat P. S.         | 3,416             | 1,942  | 1,935                 | 56.6                       | 2,242             | 1,532  | 1,532                 | 68.3                       | 54                | 96     | 55                    | 56.3                       |
| 4 Nabadwip P. S.         | 824               | 538    | 507                   | 61.5                       | 582               | 419    | 418                   | 71.8                       | —                 | 2      | —                     | ..                         |
| 5 English Bazar P. S.    | 1,926             | 1,614  | 1,615                 | 83.9                       | 914               | 804    | 842                   | 92.1                       | 40                | 54     | 45                    | 74.1                       |
| 6 Katwa Town             | 292               | 70     | 66                    | 22.6                       | 300               | 243    | 245                   | 81.7                       | ..                | ..     | 1                     | ..                         |
| 7 Joynagar-Mazilpur Town | 442               | 270    | 249                   | 56.3                       | 196               | 94     | 93                    | 47.4                       | ..                | 13     | ..                    | ..                         |
| 8 Halisahar Town         | 522               | 186    | 171                   | 32.8                       | 314               | 102    | 96                    | 30.6                       | ..                | 13     | ..                    | ..                         |
| 9 Kurseong Town          | 542               | 237    | 217                   | 40.0                       | 324               | 255    | 264                   | 81.5                       | 27                | 14     | 28                    | 192.9                      |
| URBAN TOTAL              | 1,798             | 763    | 708                   | 39.1                       | 1,134             | 694    | 698                   | 61.6                       | 27                | 40     | 29                    | 67.5                       |
| RURAL TOTAL              | 10,684            | 7,412  | 7,070                 | 66.2                       | 8,084             | 6,122  | 5,598                 | 69.2                       | 178               | 387    | 168                   | 46.0                       |
| GRAND TOTAL              | 12,482            | 8,175  | 7,773                 | 62.3                       | 9,218             | 6,816  | 6,296                 | 68.3                       | 205               | 427    | 197                   | 48.0                       |

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±0.54          |
| 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                           | 0.1379 <sup>a</sup>               | 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).

<sup>1</sup>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.

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 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.

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.

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.

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.

(Sections 1-4)

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 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.

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>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.

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 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, 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, 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 ;

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

9. Any registrar 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.

(Sections 11, 12)

11. In any place to which the District Municipal Improvement Act 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

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.  |
| 1899 | . . . . . | Madras . . . . .        | . . . . . | Births and Deaths Registration Act.  |
| 1932 | . . . . . | Coorg . . . . .         | . . . . . | Births and Deaths Registration Act.  |
| 1935 | . . . . . | Assam . . . . .         | . . . . . | Births and Deaths Registration Act   |

## APPENDIX II

### A calender 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 | . | . | . | .  |
| 1882 | . | . | . | 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.   |
| 1883 | . | . | . | .  |
| 1884 | . | . | . | .  |
| 1885 | . | . | . | .  |
| 1886 | . | . | . | } No change.   |
| 1887 | . | . | . | .  |
| 1888 | . | . | . | .  |
| 1889 | . | . | . | .  |
| 1890 | . | . | . | .  |
| 1891 | . | . | . | Deaths from dysentery and diarrhoea by months.   |
| 1892 | . | . | . | .  |
| 1893 | . | . | . | .  |
| 1894 | . | . | . | .  |
| 1895 | . | . | . | } No change.   |
| 1896 | . | . | . | .  |
| 1897 | . | . | . | .  |
| 1898 | . | . | . | .  |
| 1899 | . | . | . | .  |
| 1900 | . | . | . | Deaths -Registration of attacks and deaths from plague during each month.  |
| 1901 | . | . | . | Deaths -Registration of deaths from plague.  |
| 1902 | . | . | . | Deaths -from respiratory diseases.   |
| 1903 | . | . | . | .  |
| 1904 | . | . | . | } No change.   |
| 1905 | . | . | . | Deaths -respiratory diseases by months.  |
| 1906 | . | . | . | Deaths -from plague by months.   |
| 1907 | . | . | . | .  |
| 1908 | . | . | . | .  |
| 1909 | . | . | . | } No change.   |
| 1910 | . | . | . | .  |
| 1911 | . | . | . | .  |
| 1912 | . | . | . | .  |
| 1913 | . | . | . | Deaths from rabies.  |
| 1914 | . | . | . | .  |
| 1915 | . | . | . | .  |
| 1916 | . | . | . | .  |
| 1917 | . | . | . | } No change.   |
| 1918 | . | . | . | .  |
| 1919 | . | . | . | .  |
| 1920 | . | . | . | .  |
| 1921 | . | . | . | Monthly malaria reports of Hospitals and Dispensaries.   |
| 1922 | . | . | . | 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 | . | . | . | .  |
| 1930 | . | . | . | Quarterly statements showing the working of the Bengal Births and Deaths Registration Act, separately for the Municipalities and the rural areas.  |
| 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 | . | . | . | No change.   |
| 1933 | . | . | . | Registration of births according to chief communities.   |
| 1934 | . | . | . | Deaths of infants under one year by communities.   |
| 1935 | . | . | . | Still births registered according to communities and sex.  |
| 1936 | . | . | . | 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 | . | . | . | .  |
| 1938 | . | . | . | } No change.   |
| 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 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 . . . . .<br>Katwa . . . . .<br>Raniganj   | Kalna<br>Dainhat                         |
| Birbhum . . . . .     | Suri   |  |  |
| Bankura . . . . .     | Bankura<br>Bishnupur   | Sonamukhi  |  |
| Midnapur . . . . .    | Kharar . . . . .   | Midnapur . . . . .<br>Ghatal . . . . .<br>Tamluk . . . . .   | Chandrakona<br>Ramjibanpur<br>Khirpai    |
| Hooghly . . . . .     | Rishra . . . . .<br>Bansberia  | Konnagar . . . . .<br>Baidyabati . . . . .<br>Uttarpara . . . . .<br>Kotrung<br>Bhadreshwar<br>Champdani   | Hooghly-Chinsurah<br>Arambag<br>Serampur |
| Howrah . . . . .      | Howrah<br>Bally  |  |  |
| 24-Parganas . . . . . | Tollyganj . . . . .<br>Khardah . . . . .<br>Panihati . . . . .<br>Barrackpur . . . . .<br>Naihati . . . . .<br>Halisahar . . . . .<br>Kanchrapara . . . . .<br>Barasat . . . . .<br>Gobardanga . . . . . | Garden Reach . . . . .<br>Baruipur . . . . .<br>Budge Budge . . . . .<br>Rajpur . . . . .<br>North Dum Dum . . . . .<br>South Dum Dum . . . . .<br>Garulia . . . . .<br>North Barrackpur . . . . .<br>Taki<br>South Suburbs<br>Jaynagar-Majilpur<br>Bhatpara<br>Kamarhati<br>Basirhat<br>Titagarh<br>Baduria | Dum Dum<br>Baranagar                     |
| Calcutta . . . . .    | ....   | ....   | Calcutta                                 |
| Nadia . . . . .       | Ranaghat . . . . .   | Birnagar . . . . .<br>Chakdah . . . . .  | Krishnagar<br>Nabadwip<br>Santipur       |
| Murshidabad . . . . . | Jiaganj-Azinganj . . . . .<br>Kandi . . . . .  | Murshidabad . . . . .<br>....  | Berhampur<br>Jangipur<br>Dhulian         |
| Jalpaiguri . . . . .  | ....   | ....   | Jalpaiguri                               |
| Darjeeling . . . . .  | ....   | ....   | Darjeeling<br>Kurseong<br>Kalimpong      |
| Malda . . . . .       | ....   | ....   | Englishbazar<br>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 . . . . .<br>Salanpur . . . . .<br>Khandaghosh . . . . .<br>Manteswar . . . . .<br>Jamuria . . . . . | Burdwan<br>Memari<br>Galsi<br>Ausgram<br>Kalna<br>Katwa<br>Ketugram<br>Faridpur<br>Kanksa<br>Asansol<br>Raniganj<br>Ondal<br>Raina<br>Jamalpur<br>Bhatar<br>Purbasthali<br>Mangalkot<br>Barabani  |   |
| Birbhum . . . . .  | ....   | Sainthia . . . . .<br>Dubrajpur . . . . .<br>Illambazar<br>Bolpur<br>Nanoor<br>Rampurhat<br>Mayureswar<br>Suri<br>Rajnagar<br>Khayrasol<br>Lalpur<br>Murarai  | Muhammadbazar<br>Nalhati  |
| Bankura . . . . .  | Indas . . . . .<br>Barjora . . . . .   | Bankura . . . . .<br>Saltora . . . . .<br>Mejhia<br>Onda<br>Jaypur<br>Patrasair<br>Gangajalghati<br>Indpur<br>Khatra<br>Chhatna<br>Simlapal<br>Vishnupur<br>Sonamukhi<br>Kotulpur<br>Raipur   | Taldangra<br>Ranibandh  |
| Midnapur . . . . . | Daspur . . . . .<br>Panskura . . . . .<br>Egra . . . . .<br>Sankrail . . . . .                             | Khargpur . . . . .<br>Dantan . . . . .<br>Mohanpur . . . . .<br>Debra . . . . .<br>Keshpur . . . . .<br>Pingla . . . . .<br>Ghatal<br>Tamluk<br>Sutahata<br>Pataspur<br>Ramnagar<br>Midnapur<br>Salbani<br>Jhargram<br>Sabang<br>Gopiballavpur<br>Nayagram<br>Chandrakona<br>Mahisadal<br>Nandigram<br>Contai<br>Bhagwanpur<br>Khedgree | Jambani<br>Binpur<br>Garhbeta<br>Moyna<br>Keshiari<br>Narayangarh<br>.... |

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

## APPENDIX V—contd.

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

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

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

|                       |   |   |                               |
|-----------------------|---|---|-------------------------------|
| Burdwan . . . . .     | Burdwan . . . . .<br>Dainhat . . . . .<br>Raniganj<br>Asansol   | .....<br>.....  | Kalna<br>Katwa                |
| Birbhum . . . . .     | Suri  |   |                               |
| Bankura . . . . .     | Bankura . . . . .<br>Vishnupur  | Sonamukhi   |                               |
| Midnapur . . . . .    | Kharar . . . . .  | Ghatal . . . . .<br>Tamluk . . . . .<br>Ramjibanpur<br>Chandrakona                | Midnapur<br>Khirpai           |
| Hooghly . . . . .     | Rishra . . . . .<br>Kotrung . . . . .<br>Champdani . . . . .<br>Konnagar . . . . .  | Bansberia . . . . .<br>Arambag . . . . .<br>Baidyabati<br>Bhadreswar<br>Uttarpara | Hooghly . . . . .<br>Serampur |
| Howrah . . . . .      | Bally . . . . .   | .....   | Howrah                        |
| 24-Parganas . . . . . | Tollyganj . . . . .<br>Garden Reach . . . . .<br>Baruipur . . . . .<br>Jaynagar Majilpur . . . . .<br>Dum Dum . . . . .<br>North Dum Dum<br>South Dum Dum<br>Garulia . . . . .<br>North Barrackpur . . . . .<br>Barrackpur<br>Halisahar . . . . .<br>Kanchrapara<br>Kamarhati<br>Barasat<br>Khardah<br>Panihat<br>Basirhat<br>Gobardanga<br>Taki<br>Baduria | Budge Budge . . . . .<br>Rajpur . . . . .<br>Naihati<br>South Suburbs<br>Titagarh | Bhatpara<br>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<br>Birnagar<br>Santipur<br>Chakdah | Nabadwip      |
| Murshidabad | Kandi<br>Jiaganj<br>Jangipur<br>Dhulia | Murshidabad                                   | Berhampur     |
| Jalpaiguri  | .....                                  | Jalpaiguri                                    |               |
| Darjeeling  | .....                                  | Darjeeling<br>Kurseong<br>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<br>Raniganj<br>Ondal<br>Jamuria<br>Barabani<br>Salanpur<br>Kulti<br>Khandaghosh | Burdwan<br>Jamalpur<br>Raina<br>Memari<br>Galsi<br>Kalna<br>Manteswar<br>Bhatar<br>Angram<br>Purbasthali<br>Katwa<br>Mangalkot<br>Faridpur   | Ketugram<br>Kanksa  |
| Birbhum  | .....   | Murara<br>Sainthia<br>Bolpur<br>Nalhati<br>Rampurhat<br>Muhammadbazar<br>Khayrasol<br>Mayureswar   | Suri<br>Rajnagar<br>Dubrajpur<br>Illambazar<br>Labpur<br>Nanoor |
| Bankura  | Saltora<br>Simlapal<br>Indas  | Chhatna<br>Mejhia<br>Onda<br>Taldanga<br>Indpur<br>Khatra<br>Raipur<br>Ranibandh<br>Jaypur<br>Patrasair<br>Kotulpur<br>Bankura<br>Vishnupur  | Gangsalghati<br>Barjora<br>Sonamukhi                            |
| Midnapur | Tamluk<br>Nandigram<br>Sutahata<br>Cohtai<br>Ramnagar<br>Khedgree                       | Khargpur<br>Garhbeta<br>Salhani<br>Jhargram<br>Binpur<br>Gopiballavpur<br>Nayagram<br>Daspur<br>Mahisadal<br>Panskura<br>Bhagwanpur<br>Midnapur<br>Dantan<br>Mohanpur<br>Debra<br>Keshpur<br>Jambani | Narayangarh<br>Keshiari<br>Pingla<br>Pataspur<br>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<br>Chandrakona<br>Moyna<br>Egra  |  |
| Hooghly . . . . .       | Chinsurah . . . . .<br>Magra . . . . .<br>Balagarh . . . . .<br>Uttarpara . . . . .<br>Bhadreswar . . . . .<br>Singur . . . . .<br>Haripal . . . . .<br>Goghat . . . . .   | Serampur . . . . .<br>Tarakeswar . . . . .<br>Jangipara . . . . .<br>Arambag . . . . .<br>Pursura . . . . .<br>Khanakul . . . . .<br>Polba . . . . .<br>Pandua . . . . .<br>Dhaniakhali | Chanditala   |
| Howrah . . . . .        | Bally . . . . .<br>Domjur . . . . .<br>Sankrail . . . . .<br>Jagacha<br>Jagatballavpur<br>Panchla<br>Uluberia<br>Bauria  | Amta<br>Bagnan<br>Shyampur  |  |
| 24-Parganas . . . . .   | Tollyganj . . . . .<br>Behala . . . . .<br>Maheshtala . . . . .<br>Baruipur . . . . .<br>Bhangar . . . . .<br>Jaynagar . . . . .<br>Noapara . . . . .<br>Dum Dum . . . . .<br>Titagarh<br>Metiabruz<br>Budge Budge<br>Sonarpur<br>Bishnupur<br>Canning<br>Khardah . . . . .<br>Naihati . . . . .<br>Jagaddal<br>Bijpur<br>Barasat<br>Rajarhat<br>Basirhat<br>Hasnabad<br>Sandeshkhali<br>Swarupnagar<br>Baduria<br>Haroa<br>Diamond Harbour<br>Kakdwip<br>Sagar<br>Falta | Amdanga<br>Deganga<br>Habra<br>Gaighata<br>Bangaon<br>Kulpi<br>Magrahat<br>Mathurapur   |  |
| Nadia . . . . .         | ....   | Chapra . . . . .<br>Nakasipara . . . . .<br>Káliganj . . . . .<br>Tehatta . . . . .<br>Karimpur<br>Santipur<br>Chakdah<br>Kotwali<br>Nabadwip   | Ranaghat<br>Háringhata<br>Hanskhali<br>Krishnaganj |
| Murshidabad . . . . .   | Berhampur . . . . .<br>Raninagar . . . . .<br>Bhagwangola . . . . .<br>Lalgola . . . . .<br>Suti . . . . .<br>Raghunathganj . . . . .  | Domkal . . . . .<br>Jalangi . . . . .<br>Beldanga . . . . .<br>Hariharpara . . . . .<br>Nawda . . . . .<br>Nabagram<br>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<br>Sagardighi<br>Samsorganj<br>Bharatpur<br>Kandi<br>Khargram   |  |
| West Dinajpur      | Gangarampur   | Hili<br>Tapan<br>Kushmandi<br>Balurghat<br>Itahar   | Kumarganj<br>Raiganj<br>Kaliaganj<br>Hemtabad<br>Bansihari |
| Jalpaiguri         | Madarihat   | Kotwali<br>Mainaguri<br>Alipur Duars<br>Nagrakata<br>Dhuppuri<br>Matiali<br>Kalchini<br>Falakata<br>Kumargram | Rajganj<br>Mal   |
| Darjeeling         | Kalimpong   | Jore Bungalow<br>Pulbazar<br>Mirik<br>Sukhiapokri<br>Rangli Rangliot<br>Garubathan<br>Kurseong<br>Siliguri    | Sadar<br>Phansidewa<br>Kharibari                           |
| Malda              | Kharba<br>Harishchandrapur<br>Kaliachak<br>Ratua<br>Gajol | English bazar<br>Manikchak<br>....  | Bamangola<br>Habibpur<br>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.